



MARITIME AND PORT AUTHORITY OF SINGAPORE
SHIPPING CIRCULAR
NO. 9 of 2021

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Applicable to: Shipowners, ship managers, operators, agents and masters of Singapore-registered ships

RESOLUTIONS ADOPTED BY THE 75th AND 76th SESSION OF THE MARITIME ENVIRONMENT PROTECTION COMMITTEE (MEPC 75 AND MEPC 76) OF THE IMO

1. This circular informs the shipping community of the resolutions adopted by MEPC 75 and 76¹ and urges the shipping community to prepare for the implementation of these resolutions.

2. The mandatory resolutions adopted by **MEPC 75** include the following:

- a. [Resolution MEPC.324\(75\)](#) – **Amendments to the Annex of the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto**

*This resolution adopts amendments to MARPOL Annex VI concerning the procedures for sampling and verification of the sulphur content of fuel oil and the Energy Efficiency Design Index (EEDI). The amendments will enter into force on **01 April 2022** and will be given effect through amendments to the Prevention of Pollution of the Sea (Air) Regulations.*

- b. [Resolution MEPC.325\(75\)](#) – **Amendments to regulation E-1 and Appendix I of the International Convention for the Control and Management of the Ship's Ballast Water and Sediments, 2004**

*This resolution adopts amendments to the International Ballast Water Management Convention to require a commission test to be conducted to validate that the ballast water management system is working properly. The amendments will enter into force on **01 June 2022** and will be given effect through amendments to the Prevention of Pollution of the Sea (Ballast Water Management) Regulations.*

¹ The 75th and 76th session of Maritime Environment Protection Committee (MEPC 75 and MEPC 76) were held remotely on 16 to 20 November 2020 and 10 to 17 June 2021 respectively.

3. The mandatory resolutions adopted by **MEPC 76** include the following:

a. [Resolution MEPC.328\(76\)](#) – **Amendments to MARPOL Annex VI (2021 Revised MARPOL Annex VI)**

*The resolution adopts amendments to MARPOL Annex VI concerning mandatory goal-based technical and operational measures to reduce carbon intensity of international shipping and exemption of unmanned non-self-propelled (UNSP) barges from certain survey and certification requirements. The amendments will enter into force on **01 November 2022** and will be given effect through amendments to the Prevention of Pollution of the Sea (Air) Regulations.*

b. [Resolution MEPC.329\(76\)](#) – **Amendments to MARPOL Annex I**

*This resolution adopts amendments to MARPOL Annex I to prohibit the use and carriage for use as fuel of heavy fuel oil by ships in Arctic waters. The amendments will enter into force on **01 November 2022** and will be given effect through amendments to the Prevention of Pollution of the Sea (Oil) Regulations.*

c. [Resolution MEPC.330\(76\)](#) – **Amendments to MARPOL Annexes I and IV**

*This resolution adopts amendments to MARPOL Annexes I and IV concerning exemption of unmanned non-self-propelled barges from certain survey and certification requirements. The amendments will enter into force on **01 November 2022** and will be given effect through amendments to the Prevention of Pollution of the Sea (Oil) and (Sewage) Regulations.*

d. [Resolution MEPC.331\(76\)](#) – **Amendments to the International Convention on the Control of Harmful Anti-fouling Systems on Ships, 2001 (the AFS Convention)**

*This resolution adopts amendments concerning the control of ships bearing an anti-fouling system that contains cybutryne and the model form of the International Anti-Fouling System certificate. The amendments will enter into force on **01 January 2023** and will be given effect through amendments to the Prevention of Pollution of the Sea (Harmful Anti-Fouling Systems) Regulations.*

4. **MEPC 76** also adopted the following resolutions:

a. [Resolution MEPC.332\(76\)](#) – **Amendments 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 by Resolution MEPC.322(74))**

The amended resolution specifies the required and attained EEDI values and relevant information to be reported to International Maritime Organisation (IMO) by the Administration and any organization duly authorized as mandated by Regulation 22.3 of MARPOL Annex VI.

- b. [Resolution MEPC.333\(76\)](#) – **2021 Guidelines on the Method of Calculation of the Attained Energy Efficiency Existing Ship Index (EEXI)**

This resolution contains guidance on the method of calculating a ship's attained EEXI.

- c. [Resolution MEPC.334\(76\)](#) – **2021 Guidelines on Survey and Certification of the Energy Efficiency Existing Ship Index (EEXI)**

This resolution serves to assist verifiers of the EEXI of ships in conducting the survey and certification of the EEXI.

- d. [Resolution MEPC.335\(76\)](#) – **2021 Guidelines on the Shaft/Engine Power Limitation System to Comply with the EEXI Requirement and Use of a Power Reserve**

This resolution contains technical and operational conditions for ships using Shaft/Engine Power Limitation (SHaPoLi/EPL) System to comply with the EEXI requirement and use of a power reserve.

- e. [Resolution MEPC.336\(76\)](#) – **2021 Guidelines on Operational Carbon Intensity Indicators and the Calculation Methods (CII Guidelines, G1)**

This resolution contains the calculation methods and the applicability of the operational carbon intensity indicator (CII) for individual ships to which chapter 4 of MARPOL Annex VI, as amended, applies.

- f. [Resolution MEPC.337\(76\)](#) – **2021 Guidelines on the Reference Lines for Use with Operational Carbon Intensity Indicators (CII Reference Lines Guidelines, G2)**

This resolution provides the methods to calculate the reference lines for use with operational carbon intensity indicators (CII), and the ship type specific carbon intensity reference lines as referred to in regulation 28 of MARPOL Annex VI.

- g. [Resolution MEPC.338\(76\)](#) – **2021 Guidelines on the Operational Carbon Intensity Reduction Factors Relative to Reference Lines (CII Reduction Factor Guidelines, G3)**

This resolution provides the methods to determine the annual operational carbon intensity reduction factors and their concrete values from year 2023 to 2030, as referred to in regulation 28 of MARPOL Annex VI.

- h. [Resolution MEPC. 339\(76\)](#) – **2021 Guidelines on the Operational Carbon Intensity Rating of Ships (CII Rating Guidelines, G4)**

This resolution provides the methods to assign operational energy efficiency performance ratings to ships, as referred to in regulation 28 of MARPOL Annex VI.

5. In addition to the adoption of resolutions, the following Unified Interpretation (UI) of MARPOL was also approved by **MEPC 76**:
 - a. [MEPC.1/Circ.795/Rev.4](#) – Unified Interpretation to regulation 2.23 of MARPOL Annex VI in relation to the definition of “new ship”.
6. The Unified Interpretation (UI) listed in paragraph 5 is acceptable to MPA and should be applied with immediate effect.
7. Any queries relating to this circular should be emailed to shipping@mpa.gov.sg

CHEAH AUN AUN
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MARITIME AND PORT AUTHORITY OF SINGAPORE

MARINE ENVIRONMENT PROTECTION
COMMITTEE
75th session
Agenda item 18

MEPC 75/18
15 December 2020
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**REPORT OF THE MARINE ENVIRONMENT PROTECTION COMMITTEE
ON ITS SEVENTY-FIFTH SESSION**

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1 INTRODUCTION – ADOPTION OF THE AGENDA

1.1 The seventy-fifth session of the Marine Environment Protection Committee, originally scheduled to be held from 30 March to 3 April 2020, was postponed due to the COVID-19 pandemic (Circular Letter No.4213/Add.1) and was eventually held remotely from 16 to 20 November 2020 (Circular Letter No.3985/Rev.1), chaired by Mr. H. Saito (Japan). The Vice-Chair of the Committee, Mr. H. Conway (Liberia), was also present.

1.2 The session was attended by Members and Associate Members; representatives from the United Nations Programmes, specialized agencies and other entities; observers from intergovernmental organizations with agreements of cooperation; and observers from non-governmental organizations in consultative status, as listed in document MEPC 75/INF.1.

1.3 The session was also attended by the Chair of the Facilitation Committee, Mrs. Marina Angsell (Sweden).

Opening address of the Secretary-General

1.4 The Secretary-General welcomed participants and delivered his opening address, the full text of which can be downloaded from the IMO website at the following link:

<https://www.imo.org/en/MediaCentre/SecretaryGeneral/Pages/Secretary-GeneralsSpeechesToMeetings.aspx>

Chair's remarks

1.5 The Chair thanked the Secretary-General for his opening address and stated that his advice and requests would be given every consideration in the deliberations of the Committee.

Statements by delegations

1.6 The delegation of France, on behalf of the delegations of Germany, the Netherlands, Saudi Arabia and the United Kingdom, supported by the delegation of Malaysia, made a statement related to the risk of major oil spill posed by the **FSO** (floating storage and offloading unit) **SAFER** anchored off the Yemeni western port of Ras Issa, calling on IMO Member States to take urgent action to prevent an imminent disaster. The delegation of Saudi Arabia further requested the Secretariat to coordinate an action to mobilize resources from interested donors and partners to build the capacity in the region to respond to any unfortunate oil spill incidents. In responding, the Secretary-General introduced actions taken by IMO to date and added that a separate presentation on the issue would be held for seeking advice from Members on further actions to be taken by the Organization. The full text of the statement and the remarks made by the Secretary-General are set out in annex 16 and annex 15, respectively.

Measures taken to facilitate the remote session

1.7 The Committee recalled that, at its first extraordinary session in September 2020, which was part of the extraordinary session of all IMO Committees (ALCOM/ES), it had agreed to waive rule 3 of its rules of procedure, in part, to allow sessions to be held remotely, as well as other relevant rules. The Committees also adopted MSC-LEG-MEPC-TCC-FAL.1/Circ.1 on *Interim guidance to facilitate remote sessions of the Committees during the COVID-19 pandemic*.

1.8 The Committee, also recalled that:

- .1 taking into account the rescheduling of MEPC 75 and MEPC 76, document MEPC 75/1/2 (Secretariat) had been issued, proposing possible additional submissions by the Secretariat to this session;
- .2 according to Circular Letter No.3985/Rev.1 concerning the resumption of MEPC 75, submission of additional documents to MEPC 75 by 25 September 2020 had been allowed subject to them commenting on the documents listed under paragraph 10 of the circular letter; and
- .3 subsequent to the deadline for additional documents, as referred to in sub-paragraph .2 above, document MEPC 75/1/3 (Chair) and its corrigenda and addendum were published on IMODOCS.

1.9 The Committee endorsed the Chair's proposals on the arrangements for the remote session as set out in document MEPC 75/1/3 (Chair) and its corrigenda and addendum.

1.10 In this context, the Committee agreed to the Chair's proposals, with modifications if appropriate, in relation to the documents considered by correspondence prior to the virtual meeting, as set out in document MEPC 75/1/3/Corr.2, having noted document MEPC 75/1/3/Add.1 providing a collation of all comments received by correspondence and explanations on how those comments had been addressed. The Committee noted that the above-mentioned proposals by the Chair and the discussion would be reflected under relevant agenda items.

1.11 The Committee also agreed to postpone the consideration of the documents listed in annex 4 to document MEPC 75/1/3 (see also MEPC 75/1/3/Corr.1) to MEPC 76. Lists of documents to be postponed to MEPC 76 are reproduced at the end of relevant agenda items.

Adoption of the agenda and related matters

1.12 The Committee adopted the agenda (MEPC 75/1/Rev.1) and agreed to be guided in its work by the provisional timetable (MEPC 75/1/3, annex 1, as corrected by MEPC 75/1/3/Corr.1). In this connection, the Committee noted that the annotated agenda set out in document MEPC 75/1/1 was not relevant to the remote session, as it had been prepared and issued before the COVID-19 restrictions had been put in place.

Credentials

1.13 The Committee noted that the credentials of 104 delegations attending the session were in due and proper form.

2 DECISIONS OF OTHER BODIES

2.1 Following consideration by correspondence, prior to the virtual meeting, in accordance with the arrangements for the remote session, as outlined in document MEPC 75/1/3 (paragraphs 9 to 12) and its annex 3 (section 1 on agenda item 2), the Committee noted the decisions and outcomes of LEG 106 (MEPC 75/2), FAL 43 (MEPC 75/2/1), MSC 101 (MEPC 75/2/2), C 122 (MEPC 75/2/3), TC 69 (MEPC 75/2/4), LC 41/LP 14 (MEPC 75/2/5), A 31, C/ES.30 and C 123 (MEPC 75/2/6), and C/ES.31 and C/ES.32 (MEPC 75/2/7) with regard to its work, and agreed to take action as appropriate under the relevant agenda items.

2.2 With regard to the outcome of MSC 102, the Committee noted that agenda items 4, 5, 6, 8, 9, 10, 11, 12, 20 and 23 of that session, and the respective documents submitted under those items, were deferred to MSC 103, taking into account the limited time available at the remote session and in order to ensure continuity of the work of the Sub-Committees.

3 CONSIDERATION AND ADOPTION OF AMENDMENTS TO MANDATORY INSTRUMENTS

Amendments to mandatory instruments

3.1 The Committee considered this agenda item during the virtual meeting and was invited to consider and adopt proposed amendments to:

- .1 MARPOL Annex VI, concerning procedures for sampling and verification of the sulphur content and the Energy Efficiency Design Index (EEDI); and
- .2 the Ballast Water Management Convention (BWM Convention), concerning commissioning testing of ballast water management systems and the form of the International Ballast Water Management Certificate.

3.2 The Committee noted that the text of the aforementioned amendments to the mandatory instruments had been circulated, in accordance with articles 16(2)(a) of MARPOL and 19(2)(a) of the BWM Convention, to all IMO Members and Parties to MARPOL and the BWM Convention by Circular Letters No.3984 of 28 June 2019 and No.3974 of 1 July 2019, respectively.

Draft amendments to MARPOL Annex VI

3.3 The Committee recalled that MEPC 74 had considered and approved draft amendments to MARPOL Annex VI concerning procedures for sampling and verification of the sulphur content and EEDI, with a view to adoption at this session, as set out in the annex to document MEPC 75/3.

3.4 The Committee had for its consideration three documents commenting on the draft amendments, as follows: MEPC 75/3/2 (Japan), MEPC 75/3/3 (Republic of Korea) and MEPC 75/3/4 (IACS).

3.5 The Committee considered document MEPC 75/3/2 (Japan) proposing a number of editorial modifications to regulations 2 and 14 of MARPOL Annex VI which, in Japan's view, would bring greater precision to the description of certain terms and the application of the amendments.

3.6 The Committee did not agree on the proposed amendments to regulation 2 with regard to the addition of the wording "fuel oil" in relation to the terms "MARPOL delivered sample", "in-use sample" and "onboard sample", but concurred with the view that further improvement of the text in paragraph 11 of regulation 14 was needed with respect to the inclusion of the specific date of the entry into force of the amendment, to ensure clarity on the date of application.

3.7 The Committee considered document MEPC 75/3/3 (Republic of Korea) providing comments on the draft revised regulation 21 of MARPOL Annex VI regarding EEDI Reference Line of Bulk Carriers.

3.8 Having considered the analysis provided and the proposal that line 2.25 of regulation 21, table 2 related to bulk carriers be retained in its current format, the Committee did not agree with the proposal and agreed that the wording of the amendment as contained in document MEPC 75/3 be retained.

3.9 The Committee, having considered document MEPC 75/3/4 (IACS) proposing modifications to the draft new regulation 20.3 of MARPOL Annex VI, in order to avoid creating a new administrative burden, did not agree to the proposed revisions.

3.10 Having noted that the observer from IACS had also proposed in document MEPC 75/3/4 that the reporting of attained EEDI and related information for passenger ships other than ro-ro passenger ships and cruise passenger ships with non-conventional propulsion should not be covered by the new draft regulation 20.3 of MARPOL Annex VI, and being of the view that the proposal aimed to provide interpretation or clarification of the amendment, the Committee invited IACS to resubmit a document on this issue to MEPC 76 for consideration at that session under agenda item 6 on "Energy efficiency of ships".

3.11 The Committee noted the intervention by the observer from CESA regarding the application of phase 3 EEDI requirements to cruise passenger ships having non-conventional propulsion, notably the request that, with regard to cruise ships in series production, the delivery date of 1 January 2029 be maintained for phase 3 ships to ensure that sister ships built to an identical technical specification under the same contract could be finalized according to EEDI requirements applicable at contract date.

3.12 Having noted the proposal by the observer from CESA to address the above-mentioned matter in the context of developing or revising relevant unified interpretations, the Committee invited CESA to submit a document on this issue to MEPC 76 for consideration at that session under agenda item 6 on "Energy efficiency of ships".

3.13 Having decided on the aforementioned proposals, the Committee confirmed the contents of the requisite resolution and, taking into account the postponement of MEPC 75, agreed that the deemed acceptance date should be 1 October 2021 and the date of entry into force of the amendments should be 1 April 2022. The Committee further agreed that the starting date of the early application of EEDI Phase 3, as set out in the proposed amendments to the existing table 1 in regulation 21, should also be changed from 1 January 2022 to 1 April 2022.

3.14 The Committee also agreed to add a paragraph in the draft requisite MEPC resolution, as follows:

"ALSO INVITES the Parties to consider the application of the annexed amendments from 1 January 2022."

3.15 Having finalized its consideration of the text of the draft amendments, the Committee noted the statement made by the observer from IBIA urging the early application of the draft amendments by the Parties concerning a revised procedure for sampling and verification of the sulphur content, as soon as possible prior to the date of entry into force, to ensure a more consistent and harmonized approach in the context of implementation of 0.5% sulphur content requirements. The full statement is included in annex 16.

3.16 Having decided on the respective modifications to the draft amendments and the modified dates and wording of the resolution, taking into account the postponement of MEPC 75, the Committee instructed the drafting group to prepare the final text of the requisite MEPC resolution together with the amendments to MARPOL Annex VI, taking into account the decisions taken in plenary, for the Committee's consideration and adoption.

Draft amendments to the BWM Convention

3.17 The Committee recalled that MEPC 74 had considered and approved draft amendments to the BWM Convention regarding commissioning testing of ballast water management systems and the form of the International Ballast Water Management Certificate, with a view to adoption at this session, as set out in document MEPC 75/3/1.

3.18 The Committee confirmed the contents of the requisite resolution and, taking into account the fact that MEPC 75 had been postponed, agreed that the deemed acceptance date should be 1 December 2021 and the date of entry into force of the amendments should be 1 June 2022.

3.19 Having agreed on the modified dates, the Committee instructed the Drafting Group to prepare the final text of the requisite MEPC resolution, together with the amendments to the BWM Convention for the Committee's consideration and adoption.

3.20 As proposed in document MEPC 75/1/3 (annex 4), the Committee agreed to defer the consideration of document MEPC 75/3/5 (China) to MEPC 76 under agenda item 4 on "Harmful aquatic organisms in ballast water".

Establishment of the virtual Drafting Group on Amendments to Mandatory Instruments

3.21 The Committee established the virtual Drafting Group on Amendments to Mandatory Instruments and instructed it, taking into account comments, proposals and decisions made in plenary, to prepare:

- .1 the final text of the draft amendments to MARPOL Annex VI, concerning procedures for sampling and verification of the sulphur content and EEDI; and
- .2 the final text of the draft amendments to the BWM Convention, concerning commissioning testing of ballast water management systems and the form of the International Ballast Water Management Certificate.

Report of the Drafting Group

3.22 Having considered the report of the Drafting Group (MEPC 75/WP.5), the Committee approved it in general and took action as indicated below.

Amendments to MARPOL Annex VI

3.23 The Committee concurred with the addition of a new preambular paragraph in the resolution of the amendments to MARPOL Annex VI, making reference to MEPC.1/Circ.882, in line with new paragraph 4 inviting early application of the amendments.

3.24 The Committee considered the final text of the draft amendments to MARPOL Annex VI concerning procedures for sampling and verification of the sulphur content and EEDI (MEPC 75/WP.5, annex 1), and adopted the amendments by resolution MEPC.324(75), as set out in annex 1.

3.25 In adopting resolution MEPC.324(75), the Committee determined, in accordance with article 16(2)(f)(iii) of MARPOL that the adopted amendments to MARPOL Annex VI shall be deemed to have been accepted on 1 October 2021 (unless, prior to that date, objections are communicated to the Secretary-General of the Organization, as provided for in article 16(2)(f)(iii) of the Convention) and shall enter into force on 1 April 2022, in accordance with article 16(2)(g)(ii) of the Convention.

Amendments to the BWM Convention

3.26 The Committee considered the final text of the draft amendments to the BWM Convention regarding commissioning testing of ballast water management systems and the form of the International Ballast Water Management Certificate (MEPC 75/WP.5, annex 2), and adopted the amendments by resolution MEPC.325(75), as set out in annex 2.

3.27 In adopting resolution MEPC.325(75), the Committee determined, in accordance with article 19(2)(e)(ii) of the BWM Convention, that the adopted amendments shall be deemed to have been accepted on 1 December 2021 (unless, prior to that date, objections are communicated to the Secretary-General of the Organization, as provided for in article 19(2)(e)(ii) of the Convention) and shall enter into force on 1 June 2022, in accordance with article 19(2)(f)(ii) of the Convention.

Instructions to the Secretariat

3.28 In adopting the aforementioned amendments, the Committee authorized the Secretariat, when preparing the authentic texts, to make any editorial corrections that might be identified as appropriate, including updating references to renumbered paragraphs, and to bring to the attention of the Committee any errors or omissions requiring action by the Parties to MARPOL and the BWM Convention.

4 HARMFUL AQUATIC ORGANISMS IN BALLAST WATER**MATTERS CONSIDERED BY CORRESPONDENCE PRIOR TO THE VIRTUAL MEETING**

4.1 In accordance with the arrangements for the remote session, as outlined in document MEPC 75/1/3 (paragraphs 9 to 12) and its annex 3 (section 2 on agenda item 4), the Committee considered by correspondence, prior to the virtual meeting, the following documents:

- .1 MEPC 75/4 (Republic of Korea), containing an application for Final Approval of the EcoGuardian™ ballast water management system on fresh water;
- .2 MEPC 75/4/1 (Republic of Korea), containing an application for Final Approval of the HiBallast™ ballast water management system on fresh water;

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- .3 MEPC 75/4/2 (Republic of Korea), containing an application for Final Approval of the Electro-Cleen™ System on fresh water;
 - .4 MEPC 75/4/3 (Norway), containing an application for Final Approval of the CleanBallast® – Ocean Barrier System;
 - .5 MEPC 75/4/4 (United Kingdom), containing an application for Final Approval of the BALPURE® ballast water management system on fresh water;
 - .6 MEPC 75/4/5 (Cyprus), containing an application for Final Approval of the FlowSafe ballast water management system;
 - .7 MEPC 75/4/6 (Secretariat), containing the report of the thirty-ninth meeting of the GESAMP-Ballast Water Working Group;
 - .8 MEPC 75/4/9 (Liberia), containing an application for Final Approval of the SeaCURE® BWMS;
 - .9 MEPC 75/4/10 (Liberia), containing an application for Final Approval of the NK-O3 BlueBallast II Plus ballast water management system on fresh water;
 - .10 MEPC 75/4/12 (Secretariat), containing the report of the fortieth meeting of the GESAMP-Ballast Water Working Group (except the action requested in paragraph 3.2 of the document, which was considered during the virtual meeting);
 - .11 MEPC 75/INF.2 (Viet Nam), providing information on the type approval of the Thao Linh Development Maritime Technology Co. Ltd. ballast water management system;
 - .12 MEPC 75/INF.6 (United Kingdom), providing information on the type approval of the Cathelco Ltd Evolution ballast water management system;
 - .13 MEPC 75/INF.7 (Greece), providing information on the type approval of the ERMA FIRST BWTS ballast water management system;
 - .14 MEPC 75/INF.11 and Corr.1 (Singapore), containing the findings from a study to evaluate the performance of ballast water management systems installed on board ships against the D-2 standard of the Ballast Water Management Convention;
 - .15 MEPC 75/INF.12 (Denmark), providing information on the type approval of the Bawat BWMS Mk2 manufactured by Bawat A/S;
 - .16 MEPC 75/INF.14 (Norway), providing information on the type approval of the COSCO (Weihai) Shipbuilding Marine Technology Co., Ltd.'s BLUE OCEAN SHIELD ballast water management system;
 - .17 MEPC 75/INF.15 (Norway), providing information on the type approval of the GloEn-Patrol 2.0 ballast water management system;
 - .18 MEPC 75/INF.16 (Norway), providing information on the type approval of the Envirocleanse inTank™ bulk chemical ballast water treatment system;

- .19 MEPC 75/INF.17 (Norway), providing information on the type approval of the Oceansaver ballast water treatment system MKIIB;
- .20 MEPC 75/INF.18 (Norway), providing information on the type approval of the Ecochlor® ballast water management system;
- .21 MEPC 75/INF.20 (ISO), providing an update on ISO work for a standard approach for the verification of ballast water compliance monitoring devices; and
- .22 MEPC 75/INF.21 (Norway), providing information on the type approval of the Hyde GUARDIAN US ballast water treatment system.

4.2 During the virtual meeting, the Committee reconfirmed the endorsement of the Chair's proposals in annex 3 to document MEPC 75/1/3, as set out in the following paragraphs 4.3 to 4.12.

Approval of ballast water management systems

Consideration and approval of ballast water management systems that make use of Active Substances

4.3 The Committee extended the original Final Approvals of the EcoGuardian™ ballast water management system, the HiBallast™ ballast water management system, the Electro-Cleen™ System, the BALPURE® ballast water management system and the NK-O3 BlueBallast II Plus ballast water management system for use in fresh water as proposed by the Republic of Korea in documents MEPC 75/4, MEPC 75/4/1 and MEPC 75/4/2, the United Kingdom in document MEPC 75/4/4, and Liberia in document MEPC 75/4/10, respectively.

4.4 The Committee granted Final Approval to the CleanBallast® – Ocean Barrier System and the SeaCURE® BWMS, as proposed by Norway in document MEPC 75/4/3 and Liberia in document MEPC 75/4/9, respectively.

4.5 The Committee did not grant Final Approval to the FlowSafe ballast water management system proposed by Cyprus in document MEPC 75/4/5, noting that a further application for Final Approval of the same system proposed by Cyprus in document MEPC 75/4/11 would be considered at the virtual meeting along with the relevant outcome of GESAMP-BWWG 40 and commenting document MEPC 75/4/13 (Cyprus).

4.6 The Committee invited the Administrations of Liberia, Norway, the Republic of Korea and the United Kingdom to verify that all the recommendations contained in the reports of the thirty-ninth and fortieth meetings of GESAMP-BWWG (MEPC 75/4/6, annexes 4 and 6 to 9, and MEPC 75/4/12, annexes 4 and 6) were fully addressed during the further development of the ballast water management systems.

4.7 The Committee noted the view of GESAMP-BWWG that a unified approach was needed to determine when a change to a ballast water management system after Final Approval or type approval should be considered as a significant change in accordance with paragraph 8.4.2 of Procedure (G9), and requested GESAMP-BWWG to prepare draft guidelines for re-evaluations in cases where modifications had been made, for consideration by the Committee at a future session.

Type approval of ballast water management systems

4.8 The Committee noted the information regarding type-approved ballast water management systems provided in documents MEPC 75/INF.2 (Viet Nam), MEPC 75/INF.6 (United Kingdom), MEPC 75/INF.7 (Greece), MEPC 75/INF.12 (Denmark), MEPC 75/INF.14, MEPC 75/INF.15, MEPC 75/INF.16, MEPC 75/INF.17, MEPC 75/INF.18 and MEPC 75/INF.21 (Norway).

4.9 The Committee noted that the Secretariat had restructured the list of approved ballast water management systems on the Organization's website (<https://www.imo.org/en/OurWork/Environment/Pages/BWMTechnologies.aspx>) to distinguish those systems that were type-approved in accordance with the *2016 Guidelines for approval of ballast water management systems* (G8) or the *Code for Approval of Ballast Water Management Systems* (BWMS Code).

4.10 The Committee invited Member States to submit information on Type Approval Certificates that might have been updated in accordance with the 2016 Guidelines (G8) or the BWMS Code.

Other matters related to the implementation of the BWM Convention***Information on other matters related to the implementation of the BWM Convention***

4.11 The Committee noted the information contained in document MEPC 75/INF.11 and Corr.1 (Singapore) on a study to evaluate the performance of ballast water management systems installed on board ships against the D-2 standard of the BWM Convention.

4.12 The Committee noted the information contained in document MEPC 75/INF.20 (ISO) on work towards a standard approach for verifying ballast water compliance monitoring devices and invited the observer from ISO to provide a further update on this work to MEPC 76. The delegation of France provided comments by correspondence, which noted that further work had been carried out since the submission of the document, both by ISO and by IMO, on developing a standard and protocol for verifying ballast water monitoring devices, and that further continuation of relevant work by IMO was expected at PPR 8, all of which should also be taken into account by ISO in its own further work.

MATTERS CONSIDERED DURING THE VIRTUAL MEETING**Approval of ballast water management systems*****Consideration and approval of ballast water management systems that make use of Active Substances***

4.13 The Committee noted that, during its last (fortieth) meeting, GESAMP-BWWG had, inter alia, evaluated an application for Final Approval of the FlowSafe ballast water management system proposed by Cyprus in document MEPC 75/4/11, the report of this meeting had been circulated as document MEPC 75/4/12, and Cyprus had submitted document MEPC 75/4/13 commenting on the report.

4.14 The Committee considered document MEPC 75/4/13 (Cyprus), providing comments on the recommendation of GESAMP-BWWG that Final Approval should not be granted to the FlowSafe ballast water management system, as well as additional clarification of a few points that, in Cyprus' view, might provide sufficient justification for reconsideration of the Group's conclusion, and requesting the Committee to agree that Final Approval be granted to the FlowSafe ballast water management system.

4.15 The Chair of GESAMP-BWWG highlighted the importance of the completeness check on all information needed to perform the evaluation and stated that the applicant had not provided information in its application, or following requests by the Group, on how the FlowSafe ballast water management system would guarantee the maximum allowable discharge concentration (MADC) of total residual oxidant (TRO) at all times, which was an important lack of information that resulted in not recommending Final Approval for the FlowSafe ballast water management system.

4.16 In the ensuing discussion, some delegations supported the view of Cyprus that the previous recommendations of GESAMP-BWWG 39 had been taken into account and sufficient safeguards had been implemented to control TRO and MADC, and that the type approval process in accordance with the BWMS Code should ensure that all recommendations would be taken into account and acted upon. Therefore, those delegations supported the granting of Final Approval to the FlowSafe ballast water management system.

4.17 Other delegations expressed their confidence in the expertise of GESAMP-BWWG, noting that the Group had carefully evaluated all aspects thoroughly and that sufficient evidence had not been provided by the applicant to demonstrate that the protection of the marine environment from risks associated with the chemicals used in this ballast water management system would be safeguarded. Consequently, those delegations supported maintaining the GESAMP-BWWG recommendation not to grant Final Approval to this system.

4.18 Following consideration, the Committee requested GESAMP-BWWG to further consider the application of the FlowSafe ballast water management system, contained in document MEPC 75/4/11 (Cyprus), at its next regular meeting or any available earlier opportunity, taking into account the comments provided by Cyprus in document MEPC 75/4/13. In this regard, the Committee noted that no submission of a new application would be required.

MATTERS DEFERRED TO MEPC 76

Application of the BWM Convention to specific ship types

4.19 As proposed in document MEPC 75/1/3 (annex 4), the Committee agreed to defer the consideration of documents MEPC 75/4/7 (Australia et al.), MEPC 75/4/8 (Russian Federation), MEPC 74/4/13 (Russian Federation), and MEPC 74/4/18, MEPC 74/4/19 and MEPC 74/4/20 (Turkey) to MEPC 76.

5 AIR POLLUTION PREVENTION

MATTERS CONSIDERED BY CORRESPONDENCE PRIOR TO THE VIRTUAL MEETING

5.1 In accordance with the arrangement of the remote session, as outlined in documents MEPC 75/1/3 and its addendum and corrigenda (paragraphs 9 to 12) and its annex 3 (section 3 on agenda item 5), the Committee considered by correspondence, prior to the virtual meeting, the following documents:

- .1 MEPC 75/5/8 (Secretariat), providing information on the monitoring programme of the worldwide average sulphur content of fuel oils supplied for use on board ships after 1 January 2020, and proposing amendments to the *2010 Guidelines for monitoring the worldwide average sulphur content of fuel oils supplied for use on board ships* (resolution MEPC.192(61), as amended by resolution MEPC.273(69));

- .2 MEPC 75/5/9 (Secretariat), presenting the results of the monitoring programme of the worldwide average sulphur content of fuel oils for 2019;
- .3 MEPC 75/INF.27 (ICOMIA), providing an overview of the application of the NO_x Tier III requirements set out in regulation 13 of MARPOL Annex VI on large yachts greater than 24 m load-line length and less than 500 gross tonnage; and
- .4 MEPC 75/INF.28 (United States), providing additional information relating to a delayed application of Tier III NO_x limits for marine diesel engines installed on recreational vessels greater than 24 m load-line length and less than 500 gross tonnage.

5.2 During the virtual meeting, the Committee reconfirmed the Chair's proposals in annex 3 to document MEPC 75/1/3 as modified by its addendum and corrigenda, as set out in the following paragraphs 5.3 to 5.7.

IMO monitoring programme of the worldwide average sulphur content of fuel oils supplied

5.3 The Committee noted the information provided in document MEPC 75/5/9 (Secretariat) with regard to the outcome of the monitoring of the worldwide average sulphur content of residual and distillate fuel oils supplied for use on board ships throughout 2019.

5.4 The Committee adopted resolution MEPC.326(75) on *2020 Guidelines for monitoring the worldwide average sulphur content of fuel oils supplied for use on board ships*, as set out in annex 3.

5.5 Following a comment provided by the delegation of Germany by correspondence, the Committee noted that distillate fuel and residual fuel would continue to be reported and displayed separately under the 2020 Guidelines.

MARPOL Annex VI NO_x Tier III requirements for large yachts

5.6 The Committee noted the information in documents MEPC 75/INF.27 (ICOMIA) and MEPC 75/INF.28 (United States), providing an update on the implementation of the Tier III NO_x emissions regulations for large yachts greater than 24 m load-line length and less than 500 gross tonnage as set out in regulation 13 of MARPOL Annex VI (see also paragraphs 5.8 to 5.12).

5.7 The delegation of Italy provided comments by correspondence, which informed the Committee of the difficulties faced by the yachting sector in complying with the Tier III NO_x emissions standards by the agreed deadline of January 2021, which were mostly due to the current lack of compliant engines to be installed in newly built yachts and the impact of the COVID-19 pandemic. Furthermore, the delegation of Italy was not convinced that a further delay in the entry into force of regulation 13 of MARPOL Annex VI would be the solution to the challenges. It suggested exploring possible other solutions, including temporarily suspending the enforcement of the part of regulation 13 referring to the yachting sector and having the industry submit equivalent measures that should be approved by MEPC.

CONSIDERATION OF THE MATTER DURING THE VIRTUAL MEETING

5.8 Further to the consideration of documents MEPC 75/INF.27 (ICOMIA) and MEPC 75/INF.28 (United States) by correspondence, prior to the virtual meeting, the Committee noted an intervention by the delegation of the United States, supported by the observer from ICOMIA, commenting that the recreational boat industry continued to face serious challenges in building recreational boats that were compliant with the Tier III NO_x limits and that these challenges had been intensified by the COVID-19 pandemic. In recognizing that there was not sufficient time for an in-depth discussion at this session, the delegation of the United States urged the Committee to recommend Parties to MARPOL Annex VI to take a pragmatic approach with regard to enforcing Tier III NO_x limits to large yachts, at least until a more thorough discussion could be held at MEPC 76.

5.9 A number of delegations supported the intervention by the delegation of the United States, expressed concerns about the impact that COVID-19 had had on boat builders and engine manufacturers and concurred with the need to consider deferring enforcement of the regulation to large yachts until following further discussion at MEPC 76.

5.10 A number of other delegations, however, expressed the view that, as only information documents on the subject matter had been submitted to this session, which were noted by the Committee by correspondence, prior to the virtual meeting (see paragraph 5.6), there was no justification for further discussion or action at this session. Nor were there any clear grounds for suspending enforcement of the requirements as of 1 January 2021 until further notice. New proposals on the matter should be submitted to MEPC 76 for consideration before taking any action to relax the enforcement, if appropriate.

5.11 Following discussion, the Committee noted the concerns about large yachts not being able to comply with Tier III NO_x limits by 1 January 2021, as set out in documents MEPC 75/INF.27 and MEPC 75/INF.28. It agreed that, should any Member States wish to pursue the matter further, they should submit further proposals to a future session.

5.12 As requested, the text of the statement made by the observer from ICOMIA is set out in annex 16.

OTHERS MATTERS CONSIDERED DURING THE VIRTUAL MEETING**Establishment of the Correspondence Group on Air Pollution and Energy Efficiency**

5.13 The Committee recalled that in annex 2 to document MEPC 75/1/3 the Chair had proposed the draft terms of reference for the Correspondence Group on Air Pollution and Energy Efficiency to be established at this session.

5.14 Following consideration, the Committee established the Correspondence Group on Air Pollution and Energy Efficiency, to be coordinated by Japan,¹ with the following terms of reference:

- .1 review and amend, as appropriate, the indicative example of a licence for fuel oil supply, as set out in the annex to document MEPC 75/5/2, taking into account best practices, as well as document MSC 94/INF.8 and other licensing regimes, and consider annexing it to the *Guidance for best practice for Member State/coastal State* (MEPC.1/Circ.884);

¹ Coordinator:
Mr. Naoto Nakagawa
Director/International Environment Office Ocean Development and Environment Policy Division Maritime Bureau, Ministry of Land, Infrastructure, Transport and Tourism
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- .2 consider the proxies proposed in documents MEPC 74/6, MEPC 74/6/1 and MEPC 74/6/3, and consider draft amendments to appendix IX on *Information to be submitted to the IMO Ship Fuel Oil Consumption Database of MARPOL Annex VI*;
- .3 pursuant to regulation 22A.10 of MARPOL Annex VI, consider as "other relevant information" for inclusion in the annual report to the Committee the performance indicators set out in the annex to document MEPC 74/6/2;
- .4 further consider the proposal for shaft power limitation set out in document MEPC 75/6/6, taking into account documents MEPC 75/6/2, MEPC 75/6/8, MEPC 74/5/5, MEPC 74/5/17, MEPC 74/5/26, MEPC 74/5/29, MEPC 74/5/31 and ISWG-GHG 7/2/35, with a view to developing a work plan to progress the work on the shaft power limitation concept, and to advise the Committee accordingly;
- .5 further consider documents MEPC 75/6/3, MEPC 75/6/10, MEPC 75/6/12 and MEPC 75/6/13, with a view to finalizing the revision of the interim minimum power guidelines contained in MEPC.1/Circ.850/Rev.2;
- .6 finalize the draft amendments to the *2018 Guidelines on the method of calculation of the attained Energy Efficiency Design Index (EEDI) for new ships*, set out in document MEPC 75/6/1, taking into account the amendments in document MEPC 75/6/11;
- .7 prepare a final draft of the unified interpretation, using document MEPC 75/6/7 as a basis, to clarify the dates related to EEDI phases 2 and 3 for "new ships", to be issued as a new MEPC circular following the entry into force of the corresponding amendments to MARPOL Annex VI;
- .8 consider whether there is a need to further clarify the ship types that are subject to the provisions for "Attained EEDI" and "Required EEDI", taking into account document MEPC 74/5/14, and advise the Committee accordingly; and
- .9 submit a written report to MEPC 76.

MATTERS DEFERRED TO MEPC 76

5.15 As proposed in documents MEPC 75/1/3 (annex 4) and MEPC 75/1/3/Corr.1, the Committee agreed to defer the consideration of documents MEPC 75/5 (Secretariat), MEPC 75/5/Add.1 (Secretariat), MEPC 75/5/1 (Secretariat), MEPC 75/5/3 (Republic of Korea), MEPC 75/5/4 (FOEI et al.), MEPC 75/5/5 (FOEI et al.), MEPC 75/5/6 (ICS), MEPC 75/5/7 (IPIECA and IBIA), MEPC 75/INF.4 (Secretariat), MEPC 75/INF.9 (Secretariat), MEPC 75/INF.10 (Sweden) and MEPC 75/INF.13 (Greece) to MEPC 76.

6 ENERGY EFFICIENCY OF SHIPS

MATTERS CONSIDERED BY CORRESPONDENCE PRIOR TO THE VIRTUAL MEETING

6.1 In accordance with the arrangements for the remote session, as outlined in document MEPC 75/1/3 and its addendum and corrigenda (paragraphs 9 to 12) and its annex 3 (section 4 on agenda item 6), the Committee considered by correspondence, prior to the virtual meeting, the following documents:

- .1 MEPC 75/6 (Secretariat), containing matters to be further considered as requested by MEPC 74 and a list of documents that were deferred to this session;
- .2 MEPC 75/6/5 (Japan), providing the interim report of the Correspondence Group on Possible Introduction of EEDI Phase 4, established at MEPC 74;
- .3 MEPC 75/INF.3, MEPC 75/INF.3/Corr.1 and MEPC 75/INF.3/Add.1 (Secretariat), providing the eighth summary of data and graphical representations of the information contained in the EEDI database;
- .4 MEPC 75/INF.8 (Japan), providing comments received during the work of the Correspondence Group on Possible Introduction of EEDI Phase 4 established at MEPC 74; and
- .5 MEPC 74/6/2 (IACS and OCIMF), providing information on possible analysis of data from the IMO Ship Fuel Oil Consumption Database including identification of performance indicators and the possible further analyses that could be undertaken.

6.2 During the virtual meeting, the Committee reconfirmed the Chair's proposals in annex 3 to document MEPC 75/1/3 as modified by its addendum and corrigenda, as set out in paragraphs 6.3 to 6.7 below.

List of documents deferred from MEPC 74

6.3 The Committee noted document MEPC 75/6 (Secretariat) on matters to be further considered as requested by MEPC 74 and a list of documents that had been deferred to this session.

EEDI reviews required under regulation 21.6 of MARPOL Annex VI

6.4 The Committee noted the information submitted to the EEDI database as contained in documents MEPC 75/INF.3, MEPC 75/INF.3/Corr.1 and MEPC 75/INF.3/Add.1 (Secretariat) that data had been received from 10 recognized organizations for 6,431 ships in total (as on 3 September 2020), and that the aggregated and anonymized data had been posted in the MARPOL Annex VI module of GISIS.

Interim report of the Correspondence Group on Possible Introduction of EEDI Phase 4

6.5 The Committee noted the progress of the Correspondence Group on Possible Introduction of EEDI Phase 4, as described in documents MEPC 75/6/5 (Japan) and MEPC 75/INF.8 (Japan), and the need to streamline the work with respect to the ongoing work in ISWG-GHG.

6.6 The Committee instructed the Correspondence Group to continue its work and to submit its final report to MEPC 76.

MATTERS CONSIDERED DURING THE VIRTUAL MEETING

Establishment of a Correspondence Group on Air Pollution and Energy Efficiency

6.7 The Committee established a Correspondence Group on Air Pollution and Energy Efficiency (see paragraph 5.14).

MATTERS DEFERRED TO MEPC 76

6.8 As proposed in document MEPC 75/1/3 (annex 4), the Committee agreed to defer the consideration of documents MEPC 75/6/1 (Secretariat), MEPC 75/6/2 (United States), MEPC 75/6/3 (ICS and RINA), MEPC 75/6/4 (INTERTANKO), MEPC 75/6/6 (France et al.), MEPC 75/6/7 (IACS), MEPC 75/6/8 (Germany et al.), MEPC 75/6/10 (IMPA), MEPC 75/6/11 (IACS), MEPC 75/6/12 (Japan), MEPC 75/6/13 (Japan), MEPC 74/5 (IACS), MEPC 74/5/5 (France et al.), MEPC 74/5/6 (ICS et al.), MEPC 74/5/7 (Secretariat), MEPC 74/5/14 (Republic of Korea), MEPC 74/5/17 (Denmark), MEPC 74/5/26 (ICS et al.), MEPC 74/5/29 (United States), MEPC 74/5/30 (China), MEPC 74/5/31 (China), MEPC 74/6 (Russian Federation and IMCA), MEPC 74/6/1 (CLIA), MEPC 74/6/2 (IACS and OCIMF), MEPC 74/6/3 (Russian Federation) and MEPC 74/INF.39 (China) to MEPC 76.

7 REDUCTION OF GHG EMISSIONS FROM SHIPS**MATTERS CONSIDERED BY CORRESPONDENCE PRIOR TO THE VIRTUAL MEETING**

7.1 In accordance with the arrangements for the remote session, as outlined in document MEPC 75/1/3 and its addendum and corrigenda (paragraphs 9 to 12) and its annex 3 (section 5 on agenda item 7), the Committee considered by correspondence, prior to the virtual meeting, the following documents:

- .1 MEPC 75/7 (Secretariat), providing information on the establishment and operation of the GHG TC-Trust Fund;
- .2 MEPC 75/7/1 (Secretariat), providing the outcome of the United Nations Climate Action Summit, held in New York, the United States, on 23 September 2019;
- .3 MEPC 75/7/5 (Indonesia), providing comments on document MEPC 75/7 and proposing blended finance to support the establishment and operation of the GHG-TC Trust Fund;
- .4 MEPC 75/7/6 (Secretariat), providing the outcome of the United Nations Climate Change Conference held in Madrid, Spain, in December 2019 (COP 25); and
- .5 MEPC 75/INF.22 (Secretariat) on Just In Time Arrival Guide – Barriers and Solutions.

7.2 During the virtual meeting, the Committee reconfirmed the Chair's proposals in annex 3 to document MEPC 75/1/3 as modified by its addendum and corrigenda, as set out in the following paragraphs 7.3 to 7.8.

Outcome of the UN Climate Action Summit 2019 and relevant UNFCCC meetings

7.3 The Committee noted the information provided by the Secretariat in document MEPC 75/7/1 reporting on the outcome of the United Nations Climate Action Summit held in New York, the United States, on 23 September 2019, and in document MEPC 75/7/6 reporting on the outcome of the 25th session of the United Nations Climate Change Conference (COP 25) held in Madrid, Spain, in December 2019, which included the fifty-first session of the UNFCCC's Subsidiary Body for Scientific and Technological Advice (SBSTA 51).

7.4 The Committee requested the Secretariat to continue its well-established cooperation with the UNFCCC Secretariat and its attendance at relevant UNFCCC meetings and to continue, as appropriate, to bring the outcome of IMO's work to the attention of appropriate UNFCCC bodies and meetings.

Information on the establishment and operation of the GHG TC-Trust Fund

7.5 The Committee noted the information provided in document MEPC 75/7 (Secretariat) on the establishment and operation of the GHG TC-Trust Fund and, in particular, that since the GHG TC-Trust Fund was established on 2 July 2019, the Governments of Malaysia and France had provided a financial contribution of \$10,000 and \$80,209 respectively, and that a number of other Member Governments had expressed interest in contributing to the GHG TC-Trust Fund.

7.6 The Committee encouraged Member Governments and international organizations to consider making a financial contribution to the GHG TC-Trust Fund.

7.7 The Committee noted the information provided in document MEPC 75/7/5 (Indonesia) and invited interested Member States and international organizations to provide their further comments and experience on concepts relating to "blended financing".

Information on just-in-time arrival

7.8 The Committee noted that the Just In Time Arrival Guide, developed by the Global Industry Alliance to Support Low Carbon Shipping (GIA) established under the framework of the GEF-UNDP-IMO GloMEEP Project, had been finalized and was set out in the annex to document MEPC 75/INF.22 (Secretariat).

MATTERS CONSIDERED DURING THE VIRTUAL MEETING

Sixth meeting of the Intersessional Working Group on Reduction of GHG Emissions from Ships (ISWG-GHG 6)

7.9 The Committee noted that the sixth meeting of the Intersessional Working Group on Reduction of GHG Emissions from Ships (ISWG-GHG 6) had been held from 11 to 15 November 2019 and that its report had been submitted to it as document MEPC 75/7/2. Having considered the report and additional information provided orally by the Chair of the Group, Mr. Sveinung Oftedal (Norway), the Committee approved the report in general, noted the progress made during the sixth meeting of the Working Group and took action as described below.

MEPC resolution on encouragement of Member States to develop and submit voluntary National Action Plans to address GHG emissions from ships

7.10 The Committee noted that the Intersessional Working Group had finalized the draft MEPC resolution on encouragement of Member States to develop and submit voluntary National Action Plans to address GHG emissions from ships, as set out in annex 1 to document MEPC 75/7/2.

7.11 Following consideration, the Committee adopted resolution MEPC.327(75) on *Encouragement of Member States to develop and submit voluntary National Action Plans to address GHG emissions from ships*, as set out in annex 4, and instructed the Secretariat to facilitate the sharing of the submitted National Action Plans by developing and updating a dedicated page on the IMO website and reporting to the Committee.

Seventh meeting of the Intersessional Working Group on Reduction of GHG Emissions from Ships (ISWG-GHG 7)

7.12 The Committee noted that the seventh meeting of the Intersessional Working Group on Reduction of GHG Emissions from Ships (ISWG-GHG 7) had been held remotely from 19 to 23 October 2020 and that its report had been submitted to it as document MEPC 75/WP.3. Having considered the report and the additional information provided orally by the Chair of the Group, Mr. Sveinung Oftedal (Norway), the Committee approved the report in general and took action as described below.

7.13 The Committee noted the appreciation expressed by the delegations of Fiji, Kenya and Trinidad and Tobago and the observer from SPC for the support provided through the EU-funded Global MTCC Network (GMN) project on the implementation of energy efficiency measures and the Initial GHG Strategy in developing countries, in particular SIDS and LDCs, as well as the request to continue the project. The text of the statement made by the delegation of Kenya in this regard is set out in annex 16.

Further consideration of draft amendments to MARPOL Annex VI to reduce the carbon intensity of existing ships

7.14 The Committee noted the discussion of the Intersessional Working Group on its development of draft amendments to MARPOL Annex VI to reduce the carbon intensity of existing ships.

7.15 In this regard, the Committee noted that the following documents submitted to MEPC 75 had also been considered during ISWG-GHG 7, in addition to those documents submitted to the intersessional meeting:

- .1 MEPC 75/6/9 (INTERFERRY) arguing that requiring existing ro-ro type ships to match the perceived performance of new designs needed to be carefully considered; that the metrics used as proxy for transport work should be revisited; and that a period of data gathering and experience gaining should precede an entry into force of compulsory efficiency requirements;
- .2 MEPC 75/7/8 (IPTA – also submitted as document ISWG-GHG 7/2/1) providing comments on operational factors affecting fuel oil consumption in the chemical/parcel tanker sector, highlighting that the diverse nature of chemical/parcel tanker trade and the differing operational demands placed on fuel consumption by the various products carried meant that in most cases it would be extremely difficult to produce an accurate record of such ships' carbon intensity; and suggesting maintaining flexibility in the measures adopted, in order to ensure that compliance was monitored in the most appropriate way for the ship in question;
- .3 MEPC 75/7/9 (Pacific Environment and CSC – also submitted as document ISWG-GHG 7/2/4) assessing the potential for engine power limitation (EPL) to reduce CO₂ emissions from the existing fleet, based on the results of a new study by the International Council on Clean Transportation; and concluding that EPL as currently envisaged was not fit for purpose as a short-term measure to reduce the carbon intensity of international shipping and that other measures, including mandatory speed reduction and directly limiting the operational carbon intensity of ships, would be more effective and appropriate; and

- .4 MEPC 75/INF.24 (Pacific Environment and CSC – also submitted as document ISWG-GHG 7/2/5) summarizing the key findings of a new study by the International Council on Clean Transportation on the effectiveness of engine power limitation (EPL) as a measure to reduce CO₂ emissions from existing ships; and providing the complete study in the annex.

7.16 The Committee considered the draft amendments to MARPOL Annex VI on reducing the carbon intensity of existing ships as set out in annex 1 to document MEPC 75/WP.3, with the understanding that this was a package together with the terms of reference for a comprehensive assessment of the possible impacts of the short-term measure on States.

7.17 In the ensuing discussion, many delegations expressed their support for the approval of the short-term GHG reduction measure as set out in the draft amendments to MARPOL Annex VI combining EEXI, SEEMP and CII rating, stating that this new measure provided a good balance that would enable international shipping to achieve at least 40% carbon intensity reduction by 2030 compared with 2008 in line with the Initial IMO GHG Strategy, while allowing for the gathering of additional information, gaining more experience on the functioning of the measure and avoiding undue penalization of ships which were not able to reduce their carbon intensity due to reasons out of their control.

7.18 Several delegations were of the view that the short-term measure was both ambitious and practical, contributing to both responding to climate change and protecting the smooth development of international trade. This was of paramount importance for the sustainable development of all countries, including developing countries, in particular LDCs and SIDS.

7.19 Many delegations, while underlining the importance of urgently finalizing consideration of the short-term GHG measure and supporting its approval at this session as an important first and concrete step towards implementation of the Initial IMO GHG Strategy, also expressed the view that the measure lacked ambition, strong enforcement and sanctions, and would neither sufficiently penalize poorly rated ships nor incentivize fast-movers or a rapid uptake of energy efficient ships and technologies. That could have a negative impact on the global level playing field and could lead to national or regional GHG emission reduction measures.

7.20 Regardless, many delegations highlighted that the draft amendments represented a compromise that was a result of complex but fruitful negotiations among Member States and acknowledged that the combined short-term measure, in particular the enhanced SEEMP and the rating mechanism, provided a solid regulatory framework which the Organization could build upon in the future, including when considering possible mid- to long-term candidate measures.

7.21 Several delegations highlighted the need to work as soon as possible on developing technical guidelines to support the implementation of the short-term measure by 2023 in line with the programme of follow-up actions of the Initial Strategy.

7.22 Several other delegations stressed the importance of finalizing associated guidelines at the time of adopting the measure, in particular with regard to the EEXI, including the correction factor for ro-ro passenger and ro-ro cargo ships, the carbon intensity reduction factor and the rating mechanism.

7.23 In considering the draft amendments to MARPOL Annex VI, many delegations highlighted that, before adopting the short-term measure, it was essential to undertake a comprehensive assessment of its impacts on States, including developing countries, in particular SIDS and LDCs, in accordance with the Initial IMO GHG Strategy, the procedure

contained in MEPC.1/Circ.885 and the approved terms of reference and arrangements for conducting a comprehensive impact assessment of the short-term measure prior to MEPC 76. In that regard, those delegations underlined that the draft amendments and the terms of reference for a comprehensive assessment of the possible impacts of the short-term measure on States should be approved as a package (see also paragraphs 7.35 to 7.37 below).

7.24 The delegations of New Zealand, the Marshall Islands, Solomon Islands and Tuvalu, supported by the observers from WWF, CSC and Pacific Environment, highlighting the urgency of substantial climate action, expressed their disappointment with the draft amendments, which in their view would fail to peak GHG emissions from international shipping as soon as possible, not achieve GHG emissions reduction before 2023, and not put international shipping on a CO₂ emissions reduction pathway consistent with the Paris Agreement temperature goals. These delegations also called upon the Organization to urgently consider additional measures, with some suggesting market-based measures, notably using carbon pricing as a basis. The delegations of the Marshall Islands, Solomon Islands and Tuvalu, supported by the observers from WWF, CSC and Pacific Environment, suggested that the measure not be approved at this session, but instead be revised and strengthened for adoption at MEPC 76. As requested, the text of the statement made by the observer from CSC is set out in annex 16.

7.25 Many delegations stressed, in referring to the findings of the Fourth IMO GHG Study 2020, the urgent need for the Organization to embark on the development of mid- and long-term measures to reduce GHG emissions of international shipping in line with the vision set out in the Initial Strategy, in particular the acceleration of the work on alternative low-carbon and zero-carbon fuels, including life cycle carbon intensity guidelines and initiation of the work on new and innovative mechanisms to incentivize GHG emissions reduction.

7.26 Several delegations further emphasized the importance of rapidly advancing the development of a carbon intensity code and the review of the measure by 2025 in view of possible strengthening of the enforcement mechanism and level of ambition of the measure.

7.27 As requested, statements made by the delegations of Argentina, the Cook Islands, France, Germany, the United States and Vanuatu are set out in annex 16.

7.28 Following consideration, the Committee, in expressing its appreciation to the Working Group on Reduction of GHG Emissions from Ships under the leadership of its Chair, Mr. Oftedal Sveinung (Norway), approved the draft amendments to MARPOL Annex VI concerning mandatory goal-based technical and operational measures to reduce carbon intensity of international shipping, as set out in annex 5, and requested the Secretary-General to circulate the draft amendments in accordance with MARPOL article 16(2) with a view to adoption at MEPC 76.

7.29 The Committee noted a statement by the Secretary-General following approval of the draft amendments to MARPOL Annex VI, as set out in annex 15.

7.30 The Committee requested the Secretariat to include the following text when preparing the draft requisite MEPC resolution on the adoption of the draft amendments to MARPOL Annex VI:

- .1 invite the Organization, mindful of the review clauses provided for in regulations 21A.3 and 22B.11 of the aforesaid amendments to MARPOL Annex VI, to initiate this review as early as possible;
- .2 invite also the Parties to consider and initiate as soon as possible the development of a carbon intensity code;

- .3 invite further the Organization to keep under review the impacts on States of the aforesaid amendments to MARPOL Annex VI, paying particular attention to the needs of developing countries, especially small island developing States (SIDS) and least developed countries (LDCs), so that any necessary adjustments can be made; and
- .4 encourage the Parties to consider early application of the aforesaid amendments.

7.31 The Committee authorized the Secretariat to review the draft amendments from a drafting point of view and to effect any editorial corrections that might be identified, as appropriate, including updating references to renumbered paragraphs, and to bring to its attention any errors or omissions which would require its action at MEPC 76.

7.32 The Committee instructed the Secretariat to prepare the draft amendments on the short-term measure in the form of a draft revised MARPOL Annex VI, incorporating all previous amendments.

Assessment of impacts on States

7.33 The Committee noted the discussion of the Intersessional Working Group on the assessment of impacts on States.

7.34 The Committee considered the draft terms of reference and arrangements for conducting a comprehensive impact assessment of the short-term measure before MEPC 76, as set out in annex 2 to document MEPC 75/WP.3.

7.35 In the ensuing discussion, many delegations highlighted the need to consider the draft amendments and the assessment of their impacts on States as a package, and that accordingly MEPC 76 should consider the draft amendments for adoption and the outcome of the comprehensive impact assessment as a package. In pointing out the vast social and economic impacts of the COVID-19 pandemic leading to business and job reductions, and with investments and revenues at a low, which could take years to recover, some delegations cautioned that the potential increase of shipping costs could have a significant impact on their countries unless appropriate mitigation measures were taken. Several other delegations stressed the importance of mitigation of any identified negative impact on the SIDS and LDCs, which were most likely to be affected by significant increase of transport cost, due to their distance from main trading routes, high dependency on imports and low ability to absorb increased prices without significant welfare impacts.

7.36 In addition, a number of delegations emphasized that the findings of the comprehensive impact assessment could potentially lead to adjustments of the measure at the time of its adoption. Delegations further expressed the view that it would be important to keep the possible impacts of the measure on States under review after adoption of the measure, and that these impacts would have to be considered when reviewing the short-term measure, to be completed by 1 January 2026.

7.37 Following consideration, the Committee approved the terms of reference and arrangements for conducting a comprehensive impact assessment of the short-term measure, set out in annex 6, and instructed the Secretariat to initiate the impact assessment in accordance with the approved terms of reference, with a view to the submission of a final report for the consideration of MEPC 76.

7.38 Following approval of the terms of reference, the delegation of Argentina, in referring to the *Procedure for assessing impacts on States of candidate measures* (MEPC.1/Circ.885), which provided that disproportionately negative impacts must be addressed before the measure was considered for adoption, stressed that it would not happen before adoption of the measure; that in their view the expectation was that negative impacts would be identified by the comprehensive impact assessment to be undertaken by UNCTAD so they could be remedied or mitigated; that those impacts, as they also should be avoided (as stated in paragraph 15.3 of the circular), should be an integral part of the review foreseen for 2026; and that the review provided for in the short-term measure should include impacts on States in accordance with the terms of reference, the Initial Strategy and MEPC.1/Circ.885. The delegation of Argentina also referred to paragraph 3.3 of the terms of reference and, in indicating that it had been editorially adjusted, stated that in their understanding, although UNCTAD would not be expected to carry out a specific assessment of the impact of the COVID-19 pandemic on States, such impact, which had been disproportionately negative on developing countries, would be one of the elements to be taken into account in the context of the comprehensive assessment of the combined measure.

7.39 The Committee further instructed the Secretariat to establish a steering committee in accordance with the approved terms of reference so that the work could start as soon as possible.

7.40 In this context, the Committee agreed to relax the deadline for submission of the comprehensive impact assessment to MEPC 76 to the 9-week deadline.

7.41 The Committee noted with appreciation that the delegations of Denmark, France, Germany, the Netherlands and Norway had pledged financial contributions of €10,000, €50,000, €80,000, €10,000 and €60,000, respectively, for the conduct of the comprehensive impact assessment and invited other interested Member States and international organizations to provide financial contributions towards the comprehensive impact assessment so as to ensure its timely delivery.

7.42 The Committee noted an intervention by the delegation of the Cook Islands suggesting that the Committee should invite the Technical Cooperation Committee at its seventieth session to consider how to facilitate mobilizing resources with a view to further assisting developing countries, in particular LDCs and SIDS, with regard to negative impacts, if any, impacting on them resulting from the comprehensive impact assessment of the short-term measure.

7.43 In the ensuing discussion, a number of delegations supported the proposal, with the understanding that the Technical Cooperation Committee would support follow-up actions resulting from the comprehensive impact assessment after adoption of the amendments to MARPOL Annex VI at MEPC 76. A number of other delegations, while seeing value in principle of the involvement of the Technical Cooperation Committee, highlighted that such involvement should not affect the agreed timelines for conducting the comprehensive impact assessment and the adoption of the short-term measure at MEPC 76.

7.44 Following consideration, the Committee agreed to invite TC 70 to initiate discussions on the above-mentioned proposal, notably to consider possible means of resource mobilization for assisting developing countries, in particular LDCs and SIDS, to complement any response if the comprehensive impact assessment of the short-term measure were to find that there were likely to be disproportionately negative impacts on those States.

Development of draft associated guidelines and carbon intensity code and the associated work plan

7.45 The Committee noted the discussion of the Intersessional Working Group on developing draft associated guidelines and a carbon intensity code and the associated work plan.

7.46 In this regard, the Committee noted that ISWG-GHG 7 had agreed on the urgency of finalizing the draft guidelines and that, in order to provide clarity on mandatory requirements and the recommendatory nature of the guidelines, it had agreed on the need to develop a mandatory carbon intensity code (MEPC 75/WP.3, paragraph 59).

Establishment of a correspondence group

7.47 The Committee established a Correspondence Group on the Development of Technical Guidelines on Carbon Intensity Reduction, under the joint coordination of China, Japan and the European Commission,² with the following terms of reference:

- "1 further consider and develop the draft technical guidelines supporting the EEXI framework as set out in annexes to document ISWG-GHG 7/2/7:
 - .1 draft guidelines on the method of calculation of the attained EEXI;
 - .2 draft guidelines on survey and certification of the attained EEXI;
 - .3 draft guidelines on the Shaft/Engine Power Limitation System to comply with the EEXI requirements and use of a power reserve;
- .2 consider and develop technical guidelines supporting the CII framework for voluntary application first until 1 January 2026, using documents ISWG-GHG 7/2/21, ISWG-GHG 7/2/27 and ISWG-GHG 7/2/30 as a basis, and taking into account available data, as follows:
 - .1 draft guidelines on operational carbon intensity indicators and the calculation methods (CII guidelines);
 - .2 draft guidelines on the reference lines for use with operational carbon intensity indicators (CII Reference line guidelines);

²

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- .3 draft guidelines on the operational carbon intensity reduction factors relative to reference lines (CII Reduction factor guidelines);
- .4 draft guidelines on the operational carbon intensity rating of ships (CII Rating guidelines);
- .3 consider and update the *2016 Guidelines for the development of a Ship Energy Efficiency Management Plan (SEEMP)* (resolution MEPC.282(70)), including to incorporate the development of a plan of corrective actions and verification requirements of SEEMP;
- .4 consider the need to update existing guidelines, procedures or guidance, including:
 - .1 *2017 Guidelines for administration verification of ship fuel oil consumption data* (resolution MEPC.292(71)), as appropriate;
 - .2 *2017 Guidelines for the development and management of the IMO Ship Fuel Oil Consumption Database* (resolution MEPC.293(71));
 - .3 procedure on *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.1/Circ.871);
 - .4 *Procedures for port State control, 2019* (resolution A.1138(31));
 - .5 *2013 Guidance on treatment of innovative energy efficiency technologies for calculation and verification of the attained EEDI* (MEPC/1/Circ.815); and
- .5 submit a written report to MEPC 76, to be first considered by ISWG-GHG 8."

7.48 The Committee agreed to forward document ISWG-GHG 7/2/35 (China) to the Correspondence Group on Air Pollution and Energy Efficiency established at this session (see paragraph 5.14).

Draft terms of reference for the eighth meeting of the Intersessional Working Group on Reduction of GHG Emissions from Ships (ISWG-GHG 8)

7.49 Further, the Committee approved the holding of the eighth intersessional meeting of the Working Group on Reduction of GHG Emissions from Ships before MEPC 76, with the following terms of reference:

"The Intersessional Working Group on Reduction of GHG Emissions from Ships is instructed, taking into account documents submitted to ISWG-GHG 8 and the report of the Correspondence Group on the Development of Technical Guidelines on Carbon Intensity Reduction, and relevant documents submitted to ISWG-GHG 6, ISWG-GHG 7 and MEPC 75, to:

- .1 finalize the draft technical guidelines supporting the EEXI framework as set out in the annexes to document ISWG-GHG 7/2/7:
 - .1 draft guidelines on the method of calculation of the attained EEXI;

- .2 draft guidelines on survey and certification of the attained EEXI; and
- .3 draft guidelines on the shaft/engine power limitation system to comply with the EEXI requirements and use of a power reserve;³
- .2 further consider and finalize the main technical guidelines supporting the CII framework for voluntary application first until 1 January 2026, using documents ISWG-GHG 7/2/21, ISWG-GHG 7/2/27 and ISWG-GHG 7/2/30 as a basis, and taking into account available data:
 - .1 draft guidelines on operational carbon intensity indicators and the calculation methods (CII guidelines);
 - .2 draft guidelines on the reference lines for use with operational carbon intensity indicators (CII Reference line guidelines);
 - .3 draft guidelines on the operational carbon intensity reduction factors relative to reference lines (CII Reduction factor guidelines); and
 - .4 draft guidelines on the operational carbon intensity rating of ships (CII Rating guidelines);
- .3 further consider with a view to finalizing the update of the *2016 Guidelines for the development of a Ship Energy Efficiency Management Plan (SEEMP)* (resolution MEPC.282(70)), including to incorporate the development of a plan of corrective actions and verification requirements of SEEMP;
- .4 consider concrete proposals for the update of existing guidelines, procedures and guidance, including:
 - .1 *2017 Guidelines for administration verification of ship fuel oil consumption data*, as appropriate (resolution MEPC.292(71));
 - .2 *2017 Guidelines for the development and management of the IMO Ship Fuel Oil Consumption Database* (resolution MEPC.293(71));
 - .3 *Procedure on 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.1/Circ.871);
 - .4 *Procedures for port State control, 2019* (resolution A.1138(31)); and

³ Taking into account the work of the Correspondence Group on Air Pollution and Energy Efficiency established by MEPC 75, as appropriate.

- .5 *2013 Guidance on treatment of innovative energy efficiency technologies for calculation and verification of the attained EEDI (MEPC/1/Circ.815);*
- .5 identify a preliminary list of technical guidelines supporting chapter 4 of MARPOL Annex VI that could be consolidated into a mandatory carbon intensity code; and
- .6 submit a written report to MEPC 76."

7.50 In considering the draft terms of reference for the Correspondence Group and ISWG-GHG 8, the delegation of France noted that the terms of reference should not prejudge the date of entry into force of a future carbon intensity code, which might enter into force well before 1 January 2026.

7.51 In considering the draft terms of reference for ISWG-GHG 8, a number of delegations recalled that ISWG-GHG 7 had not been able to address the full terms of reference as approved by MEPC 74 (MEPC 74/18, paragraph 7.48), as it had focused on item 1 of those terms of reference, namely the further consideration of draft amendments to MARPOL Annex VI to reduce the carbon intensity of existing ships. Consequently, these delegations emphasized the need to urgently consider the remaining agenda items, in particular the concrete proposals to reduce methane slip and emissions of volatile organic compounds (VOCs) and to encourage the uptake of alternative low-carbon and zero-carbon fuels, including the development of life cycle GHG/carbon intensity guidelines for all relevant types of fuels.

Fourth IMO GHG Study 2020

7.52 The Committee recalled that MEPC 74 had requested the Secretariat to initiate the Fourth IMO GHG Study in accordance with the terms of reference approved at that session, including the establishment of a steering committee to oversee the development of the Study in accordance with the terms of reference, so that the work could begin in autumn 2019.

7.53 The Committee had for its consideration the following documents:

- .1 MEPC 75/7/3 (Secretariat) providing information on the establishment of the Steering Committee and the outcome of its first meeting, held on 23 July 2019, on the outcome of the tendering process, including value for money calculation combining the technical and financial scores (weighted 50%-50%) for each tender, on the attribution of the contract to the consortium led by CE Delft, on the composition of the consortium, and on the progress of the work by the contractor;
- .2 MEPC 75/7/3/Add.1 (Secretariat) providing information on the outcome of the second meeting of the Steering Committee, held on 6 February 2020, which considered an interim report submitted by the contractor, oriented the work of the contractor on specific methodological items and recommendations identified in the interim report, provided feedback to the contractor on the progress of the study, considered the modalities of the external review of quality assurance and quality control (QA/QC) issues to be conducted, and considered the timeline for the final delivery of the Study;
- .3 MEPC 75/7/3/Add.2 providing information on the outcome of the third meeting of the Steering Committee, held on 17 June 2020, and on the finalization of the study submitted to the Committee in document MEPC 75/7/15;

- .4 MEPC 75/7/15 (Secretariat) providing in the annex the final report of the Fourth IMO GHG Study 2020, as well as the "highlights" of the Study and the executive summary;
- .5 MEPC 75/7/16 (SGMF) welcoming the completion and release of the Fourth IMO GHG Study, stating that it made a strong contribution towards collective efforts to decarbonize shipping, and raising specific technical points that in the view of SGMF required some further careful evaluation; and
- .6 MEPC 75/7/17 (Marshall Islands and Solomon Islands) providing comments in relation to findings from the final report of the Fourth IMO GHG Study and highlighting the urgency of initiating work on revising the Initial IMO GHG Strategy, with a view towards increasing the levels of ambition, as well as the need to progress towards debates on mid- and long-term measures, including market-based measures, as soon as possible.

7.54 In the ensuing discussion, all delegations that spoke expressed their appreciation for the consortium, for the Steering Committee that oversaw the development of the Study and for the coordination of the work of the Steering Committee by Mr. Harry Conway (Liberia), and recommended that the Study be approved at this session.

7.55 Many delegations commended the scientific quality of the Fourth IMO GHG Study 2020, stating that it represented a significant improvement in terms of completeness, accuracy and reliability compared to the previous IMO GHG studies and that it would represent an important tool, together with other relevant sources such as the fuel consumption data, to inform future policymaking by the Organization.

7.56 Several delegations pointed out that the Study showed a clear decoupling of the GHG emissions from international shipping from the increased maritime trade volumes as well as a significant improvement of carbon intensity in the period under review, indicating that previously agreed IMO measures had started to have positive effects; and expressed the view that the short-term measure approved by the Organization would provide a solid basis for further emissions reduction and the focus should be on implementing the short-term measure before considering further measures.

7.57 Regardless, many delegations pointed out the limited decrease of GHG emissions from international shipping since 2008, the slowdown in improving carbon intensity since 2012, and the projected further increase of GHG emissions from international shipping as demonstrated in the Study, and consequently expressed the view that further work on mid- and long-term candidate measures as well as the review of the Initial IMO GHG Strategy should be initiated rapidly.

7.58 Some delegations, in supporting the Study in general, expressed concerns that the emission inventory of Black Carbon emissions was solely based on a literature review, and that the updated method to separate domestic and international emissions could lead to inconsistency and confusion in relation to previous IMO GHG Studies and reporting to other UN organizations, in particular UNFCCC, on national GHG emissions. These delegations noted also that the lack of reliable data had sometimes led the consortium to make assumptions, therefore attention should be paid to the uncertainties when quoting the conclusions of the Study and the Organization should be cognizant of these concerns when considering further policy developments.

7.59 Several delegations supported the considerations put forward regarding the calculated rise in methane emissions in document MEPC 75/7/16 (SGMF), in particular that the increase in methane emissions observed in the 2012-2018 period needed to be put in the context of an increasing number of dual-fuel engines installed on board gas carriers, but that the use of LNG as an alternative fuel would still have an overall positive effect on GHG reduction. The text of the statement made by the observer of SGMF in this regard is set out in annex 16.

7.60 The observer from CLIA expressed the view that some of the findings of the Study were not fully representative for the cruise sector and called upon the use of specific proxies to calculate the carbon intensity of cruise ships as proposed in its submission to MEPC 74 (MEPC 74/6/1). The text of the statement made by the observer in this regard is set out in annex 16.

7.61 In considering document MEPC 75/7/17 (Marshall Islands and Solomon Islands) calling for urgent action on initiating discussions on mid- and long-term candidate actions, in particular market-based measures, enhancing the level of ambition in Initial GHG Strategy in line with recent climate science and putting in place robust working arrangements that would enable the Organization to address the findings in the Fourth IMO GHG Study with urgency, a number of delegations supported the proposals put forward by the co-sponsors.

7.62 A number of other delegations did not support document MEPC 75/7/17, stating that the Committee should focus on finalizing technical guidelines supporting the short-term measure and its comprehensive impact assessment to identify possible impacts on States before considering additional measures. Some of these delegations highlighted that the ISWG-GHG provided an appropriate arrangement to discuss GHG-related matters; recalled the timeline of the adoption of the Revised IMO GHG Strategy, foreseen for 2023; and stressed that in their view market-based measures could constitute distortions to trade, affect countries distant from their markets, negatively impact the sustainable development of international maritime trade, and be contrary to the rules of the World Trade Organization.

7.63 As requested, the statements made by the delegations of the Cook Islands and the Russian Federation and the observers from ICS and CSC are set out in annex 16.

7.64 Having considered the information provided by the Steering Committee in documents MEPC 75/7/3, MEPC 75/7/3/Add.1 and MEPC 75/7/3/Add.2 and the additional information provided orally by the coordinator of the Steering Committee, Mr. Harry Conway (Liberia), the Committee expressed its appreciation to the contractor for having conducted the Study and to the coordinator and the other members of the Steering Committee for having supervised its preparation, as well as to the external experts for their contribution to the quality assurance and quality control (QA/QC) process.

7.65 The Committee thanked the Governments of Australia, Canada, Denmark, France, Japan, the Netherlands, Norway, the Republic of Korea, the United Arab Emirates and the United Kingdom for their financial contribution to the Fourth IMO GHG Study 2020.

7.66 The Committee approved the Fourth IMO GHG Study 2020 set out in annex 2 to document MEPC 75/7/15 and requested the Secretariat to publish and disseminate the Study including any editorial corrections that might be identified.

Consideration of the proposal for an international maritime research and development board (IMRB)

7.67 The Committee had for its consideration a proposal co-sponsored by several industry associations for the development of a research and development (R&D) programme to accelerate the introduction of low-carbon and zero-carbon technologies and fuels, as set out in document MEPC 75/7/4 (ICS et al.).

7.68 The Committee noted that the proposed programme would rely on the establishment by the Organization of a non-governmental international maritime research and development board (IMRB) in charge of funding, overseeing and coordinating specific R&D projects, an IMO "supervisory body" reporting to the Committee and an International Maritime Research Fund (IMRF) expected to raise approximately \$5 billion over the 10 to 15 years life of the programme via a mandatory R&D contribution of \$2 per tonne of fuel oil purchased for consumption.

7.69 In this connection, the Committee also noted that document MEPC 75/INF.5 (ICS et al.) provided an analysis entitled *Zero-carbon fuels acceleration*, carried out by Ricardo, on what R&D activities could be undertaken with \$5 billion funding over the life of the IMRB, considering technical issues associated with zero-carbon technologies, explaining the typical R&D process including technology readiness levels (TRLs), providing example R&D case studies of projects which might be required, illustrating the breadth of projects the fund could support and discussing the implications for shipowners and operators.

7.70 The Committee also had for its consideration the following commenting documents:

- .1 MEPC 75/7/11 (Netherlands), welcoming the proposal to establish an IMRB, highlighting that the IMRB could provide a useful impetus to the development of low- and zero-carbon technologies on board ships; suggesting that the IMRB should focus on bunkering, storing and converting fuel or energy systems, instead of focusing on the production process of alternative fuels, strike a balance between incentivizing technology suppliers to develop new technologies and testing them on board, and also focus on technologies for niche sectors, small segments and segments with unpredictable voyage patterns; and proposing that the IMRF could confirm payment of the contribution at any time so that PSC officers could make the payment a condition for entry to or exit from a port in case of detection of non-compliance;
- .2 MEPC 75/7/12 (Vanuatu), supporting in principle this industry-led initiative but, taking into account the various challenges and uncertainties faced by it, suggesting two variations: 1) that the IMRB would form an integral part of the Organization, e.g. under the form of a new IMO maritime research and development department (MRDD); and 2) that the core funding for an IMO R&D trust fund would be provided via a mandatory contribution based on gross tonnage – e.g. a contribution of \$0.5 per gross tonnage – in order to facilitate its collection, and with a small fraction dedicated to the GHG-TC Trust Fund as a means of ensuring the global effectiveness of the initiative;
- .3 MEPC 75/7/13 (Solomon Islands and Tonga), expressing the view that, while the proposed IMRB aligned with the Initial Strategy, in its current form it was not likely to address the specific interests and needs of SIDS and LDCs; and inviting the Committee to consider the IMRB within the context of the broader debate on the architecture and quantum of market-based measures (MBMs) for international shipping, which should be considered before adoption of any

specific proposal; agree that any oversight body established to determine priorities and allocation of funding for R&D must not be dominated by one group and must include representation from SIDS and LDCs; agree that 20% of R&D funding allocated from IMRF should target the shipping needs of SIDS and LDCs; and agree that funding be allocated not only to prototypes but also to deployment, market readiness and commercialization projects; and

- .4 MEPC 75/7/14 (OECD), providing considerations on the establishment of an IMRB, based on lessons learned from a study on maritime subsidies published by OECD in 2019 and highlighting that an IMO GHG R&D programme would need clear objectives, including intended outcomes, which stages of R&D would be included, the scope of the subsidies, the beneficiaries, and the evaluation of the programme; that conditions for funding should be considered such as the additionality of funds, technology transfer and mandatory assessments of effectiveness of the contribution; and that such a programme could also aim at addressing the current unbalanced playing field between fuel oil and alternative fuels, in combination with measures such as carbon pricing.

7.71 In the ensuing discussion, the following views, inter alia, were expressed:

- .1 international shipping's ability to meet the ambitions set out in the Initial IMO GHG Strategy as well as the Paris Agreement's temperature goals would require a fundamental shift to alternative low-carbon and zero-carbon fuels and technologies; therefore, the acceleration of R&D activities to develop alternative low-carbon and zero-carbon fuels should be encouraged;
- .2 the concept of IMRB should be supported in general, and the Committee should immediately initiate the work on developing such a framework, with a view to finalizing the draft amendments to the MARPOL Convention in the short term;
- .3 the concept of IMRB was premature, and it would require more detailed consideration by the Committee as well as an assessment of its impacts on States;
- .4 the establishment of an international R&D board would be a first but necessary step to support innovation and to accelerate the introduction of low-carbon and zero-carbon technologies and fuels for use in the international maritime sector, but would not incentivize behavioural change and therefore could not be categorized as an MBM;
- .5 only a global initiative would give the greatest prospect of meeting the IMO ambitions, while ensuring that international shipping continued to provide the efficient and reliable services that the world's economies relied on; there was also a need to leverage synergies and harness opportunities for collaboration, with global coordination, to accelerate the development of low- and zero-carbon solutions and their supporting infrastructures;
- .6 since many countries had already conducted technological research on new energies such as fuel cells and hydrogen fuel, the establishment of the IMRB could risk a duplication of efforts;

- .7 more partnerships and projects should be established under the IMO umbrella; in this regard Member States were invited to note the new IMO-Republic of Korea GHG SMART Project focusing on supporting SIDS and LDCs in reducing GHG emissions from their shipping sector;
- .8 without a full understanding of the impacts of the proposal on States, the proposal could not be supported;
- .9 the proposed IMRB and its associated fund could provide the necessary support to accelerate the development of measures towards the ambition set out in the Initial IMO GHG Strategy; however, the IMRB's organization, mandates, functions and processes would need to be carefully studied, being mindful of the need to ensure transparency, accountability, ease of operation and timeliness;
- .10 since the proposed IMRB relied on industry funding and was designed to support industry-based research, it would be more appropriate for the industry to develop such a concept outside the IMO regulatory framework;
- .11 the IMRB as proposed may not be the right instrument for stimulating progress in research and development;
- .12 there was no precedent in the Organization to directly support technological research and development and R&D was essentially a commercial activity, so it was unclear how IMO could support this whilst sticking to technology neutrality; rather, the Organization should ensure that all countries equally benefited from technology research and development;
- .13 the proposal could support more R&D, but would need to provide the necessary incentive to increase demand in alternative fuels or pull further necessary investments;
- .14 the proposed governance of the mechanism seemed very complex; therefore, the Committee should rather draw from existing funding structures such as the IOPC funds; and the Secretariat's advice on creating a GHG-related R&D fund with existing mechanisms would be useful;
- .15 the establishment of a new standalone NGO should not be supported; instead, the Committee should consider establishing a new department within the Secretariat and making use of existing funds; to that end the Secretariat should undertake a feasibility study covering legal and administrative aspects of establishing such mechanism within the Organization;
- .16 the proposal entailed significant legal challenges, and the inclusion of requirements not directly related to the protection of the marine environment in the MARPOL Convention would dilute the goals of the Convention, and the choice of legal instrument and governance structure should be further considered;
- .17 among governance issues, the role of IMO Member States should be clarified as a concept and explicitly defined in the IMRB/IMRF charter;
- .18 the proposed governance structure was not very clear: whereas Member States would have a role in the collection of the contributions through flag State and PSC, their role in the governance and allocation of funds seemed to be rather limited;

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- .19 in following the Committees' Methods of Work, such proposal should be properly specified in SMART terms (specific, measurable, achievable, realistic, time-bound);
 - .20 imposing a mandatory financial contribution on shipping alone would make it less competitive compared with other sectors not subject to similar contributions and risk transportation modal shifts;
 - .21 the establishment of a mandatory financial contribution would fall under the fiscal control of States and therefore would entail significant legal challenges;
 - .22 requiring States to impose mandatory fuel consumption levies on ships was not acceptable to some Members States, therefore alternative funding sources should be considered as options;
 - .23 although the proponents indicated that the IMRB was not a market-based measure, the proposed charge would act as a de facto carbon tax thus penalizing export countries far from their destination markets due to the transfer of the increase in fuel costs; and therefore, the idea of having a mandatory contribution could not be supported;
 - .24 the administrative burden on flag States to ensure compliance should be assessed and addressed;
 - .25 any proposed measure should consider the impacts of the context of the COVID-19 pandemic, which, according to UNCTAD, would result in a decrease of international maritime transport of 4.1% in 2020;
 - .26 although the economic impact of the financial contribution was a legitimate concern, it should be recalled that the proposed \$2 per tonne of fuel was within the daily fluctuation of bunker fuel market prices and already fluctuated considerably from one geographic region to another; therefore, the economic impact of the proposal should be marginal;
 - .27 imposing a mandatory contribution on the amount of fuel used would impose a disproportionate burden on shipowners that operated ships on long voyages or in regions where fuel consumption was relatively higher, for example to address adverse weather conditions or ice conditions;
 - .28 research and development, in accordance with part XIV of UNCLOS, was crucial in this respect, and in this regard the question of intellectual property vis-a-vis transfer of technology was not clear in the proposal;
 - .29 a mechanism should be put in place to ensure equitable distribution of funds taking into account the development status of countries and the commitment of the Organization in favour of technology transfer;
 - .30 other funds (e.g. the Green Climate Fund (GCF)) were already available to the maritime sector and the Organization should endeavour to attract such funds into the maritime sector, prior to embarking upon a new standalone fund for the maritime sector;

- .31 a portion of the funds collected should be solely dedicated to SIDS and LDCs for some specific but connected matters, and SIDS and LDCs should be represented on any oversight structure of the fund;
- .32 while this fund could be useful to stimulate some niche areas, as also highlighted in document MEPC 75/7/11 (Netherlands), it would on the other hand come too late for those shipowners that had already invested in technological solutions on board their ships; these shipowners would very much rely on investments in shore-based installations for the production, storage and delivery of fuels; the majority of investments for zero-emission navigation should be invested on land and it was not clear how this aspect had been taken into account, what kind of projects and under what criteria the funds would be awarded and how their effectiveness would be evaluated;
- .33 the provisions on intellectual property rights set out in article 7 of the draft IMRB charter would not guarantee equal access to the results of work;
- .34 the proposal did not indicate who would benefit from the income gained from the licensing of technologies and associated patents; therefore, further discussion and considerations would be needed in this regard;
- .35 the intellectual property rights obtained in line with paragraph 6a of article 7 of the draft IMRB charter should be sufficiently protected in order to ensure sufficient participation of industrial technology developers;
- .36 a global and in-sector mechanism based on levy or payments to be set by IMO should be developed as soon as possible to reduce the competitiveness gap between conventional and carbon neutral energy sources;
- .37 reference could be made to the lessons learned on blended finance, as set out in document MEPC 75/7/5 (Indonesia);
- .38 the Organization should reiterate its position submitted to UNFCCC in 2009 on the need to establish market-based measures to effectively reduce GHG emissions from shipping;
- .39 part of the funds should be dedicated to investments in land-based infrastructure in ports, including bunkering infrastructure of low carbon fuels, as these were essential for enabling the carbon transition;
- .40 the Organization should, in parallel with the establishment of the IMRB, initiate work towards developing an MBM that would trigger the commercial development of zero-carbon fuels, technologies and relevant infrastructure;
- .41 in order to move towards decarbonization of international shipping, the Organization should initiate the discussions on mid- and long-term measures as soon as possible before 2023 and start discussing the review of the Initial GHG Strategy; in order to support this additional workload, MEPC 76 should consider concrete proposals for and agree on the establishment of appropriate working arrangements;
- .42 in order to ensure that Member States could continue to move together on these issues, the IMRB proposal should be linked to the broader discussion on the next possible package of measures along with consideration of their impacts on States; therefore, the Committee should develop a more specific work plan to progress on candidate mid- and long-term measures;

- .43 the IMRB proposal should not be linked to the broader discussion on mid- and long-term measures, as it would make the issue unnecessarily complex;
- .44 until it could be determined whether or not the short-term measures would have a negative impact on remote SIDS and thereafter ways could be determined to mitigate against such impacts, including exemptions and/or compensatory mechanisms, further measures, such as MBMs, should not be considered, as their costs would be passed down the supply chain, placing a further burden on the economy of SIDS;
- .45 the programme of follow-up actions agreed at MEPC 73 identified that the consideration of mid- to long-term measures should have started at MEPC 74 and MEPC 75; therefore, the Committee was already too late and discussion on mid- and long-term measures should be discussed as a matter of urgency at MEPC 76;
- .46 the Initial Strategy set out a review date of 2023, and any anticipation of that date was not the right path, as MEPC 76 needed to focus on the findings of the comprehensive impact assessment and on developing guidelines accompanying the short-term measure;
- .47 although IMO should embark rapidly on a discussion of MBM, efforts should be focused first on establishing the IMRB in the short term; the discussions could be organized and held in parallel;
- .48 the immediate priority of the Committee on GHG-related issues should be to finalize the short-term goal-based measures and the associated consideration of impacts on States; and
- .49 nothing should be decided by the Committee regarding further consideration of the IMRB proposal because there had been no consensus on many issues which lacked clarity, and therefore the Committee should not immediately initiate work on the IMRB; the priority should rather be given to the work on guidelines and the comprehensive impact assessment associated with the approved short-term measure, with a view to finalizing the draft amendments to MARPOL Annex VI at MEPC 76, as agreed in the package delivered by ISWG-GHG 7; the review of the Initial Strategy should not take place before 2023; and linking the IMRB to the discussion on mid- and long-term measures would add an extra layer of unnecessary complexity.

7.72 The delegation of Finland,⁴ supported by some delegations, offered to work informally during the intersessional period with interested delegations, with a view to submitting a proposal on streamlining structuring and organizing the Committee's work, including through a possible proposal for a work plan, under this agenda item. The text of the statement made by the observer of CSC on the inclusion of all stakeholders in the above-mentioned informal processes is set out in annex 16.

7.73 As requested, statements made by the delegations of Brazil, Chile, Germany, Malaysia and the United Arab Emirates are set out in annex 16.

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7.74 Following the discussion, the Committee acknowledged the proposal by the industry organizations to establish an IMRB and noted diverging views and concerns on the proposal contained in document MEPC 75/7/4, in particular with regard to various operational, administrative, legal and governance aspects.

7.75 The Committee also noted that it would require more detailed consideration, taking into account documents submitted and comments made on the proposal at this session, including consideration of its impacts on States, before taking any decisions on the proposal.

7.76 Subsequently, the Committee invited interested Member States and international organizations to submit further commenting documents and other proposals.

PROCEDURAL ISSUES RAISED UNDER THIS AGENDA ITEM

7.77 During the consideration of matters under this agenda item, the Committee received complaints by a number of delegations about using Twitter to issue regular updates on its considerations, in particular the views expressed by individual Member States. In this regard, the Director, Legal Affairs and External Relations Division advised that, pursuant to rule 10(1) of the Committee's rules of procedure, in the absence of a decision to the contrary, meetings of the Committee were held in private. Rule 10(2) allowed media attendance at private meetings, provided accredited media abided by the terms and conditions for media attendance at meetings adopted by the Council at its thirtieth extraordinary session. Those terms and conditions allowed statements of delegations to be quoted. However, the Committee could restrict these terms and conditions in order to maintain an environment which would ensure a free and open exchange of views on subjects on the agenda. In this meeting, the Chair ruled that social media should not be used to tweet out the deliberations of the Committee. This direction applied to Member State delegates, NGOs, pursuant to rule 5 of the Regulations and Guidelines for the Consultative Status for Non-Governmental Organizations adopted by the Assembly at A.32, and accredited media, pursuant to the Council's media terms and conditions as modified by the Chair. The Director also informed the Committee that the tweets that were the subject of the point of order raised by the delegation of Saudi Arabia supported by a number of delegations were not traceable to any particular delegate or member of the accredited media.

7.78 In recalling rule 24 of the Rules of Procedure of the Marine Environment Protection Committee, the delegation of the Russian Federation expressed the concern that due to the limited time available at each daily virtual session, the Committee had repeatedly held proceedings in English only. This delegation stated that in the future MEPC and GHG-related sessions would need to be better planned, especially taking into consideration the virtual nature of the session.

7.79 In discussing the work arrangement for this agenda item, several delegations expressed the view that an extension of the number of working days allocated to the Committee and the Intersessional Working Group on Reduction of GHG Emissions from Ships would be needed to effectively address all GHG-related issues; other delegations supported the establishment of further dedicated workstreams on reduction of GHG emissions from ships; while some other delegations stated that this issue should be addressed more systematically by the Council. The statement made by the delegation of the Cook Islands in this regard is set out in annex 16.

MATTERS DEFERRED TO MEPC 76

7.80 As proposed in document MEPC 75/1/3 (annex 4), the Committee agreed to defer the consideration of documents MEPC 75/7/7 (Norway), MEPC 75/7/10 (FOEI et al.), MEPC 75/INF.25 (FOEI et al.) and MEPC 75/INF.26 (Comoros) to MEPC 76.

8 FOLLOW-UP WORK EMANATING FROM THE ACTION PLAN TO ADDRESS MARINE PLASTIC LITTER FROM SHIPS

8.1 As proposed in document MEPC 75/1/3 (annex 4), the Committee agreed to defer the consideration of documents MEPC 75/8 (Secretariat), MEPC 75/8/1 and MEPC 75/8/2 (FAO), MEPC 75/8/3 (Singapore), MEPC 75/8/4 (Vanuatu), MEPC 75/8/5 (Secretariat), MEPC 75/INF.19 (Secretariat of the Basel Convention) and MEPC 75/INF.23 (Secretariat) to MEPC 76.

9 IDENTIFICATION AND PROTECTION OF SPECIAL AREAS, ECAs AND PSSAs

9.1 The Committee noted that no submissions had been made under this agenda item.

10 POLLUTION PREVENTION AND RESPONSE

MATTERS CONSIDERED BY CORRESPONDENCE PRIOR TO THE VIRTUAL MEETING

10.1 In accordance with the arrangements for the remote session, as outlined in document MEPC 75/1/3 (paragraphs 9 to 12) and its annex 3 (section 6 on agenda item 10) (refer also to relevant corrections in document MEPC 75/1/3/Corr.1 and Corr.2), the Committee considered by correspondence, prior to the virtual meeting, the following documents:

- .1 MEPC 75/10 (Secretariat), setting out the action requested of the Committee in connection with the urgent matters emanating from the seventh session of the PPR Sub-Committee (paragraphs 2.1 to 2.11 only); and
- .2 MEPC 75/10/Add.1 (Secretariat), setting out the action requested of the Committee in connection with the remaining matters emanating from the seventh session of the PPR Sub-Committee (paragraphs 3.1, 3.2 and 3.14 only).

10.2 During the virtual meeting, taking into account the relevant outcome of MSC 102, the Committee reconfirmed the Chair's proposals in annex 3 to document MEPC 75/1/3 as corrected, as set out in the following paragraphs 10.3 to 10.13.

Safety and pollution hazards of chemicals

Revision of GESAMP Reports and Studies No.64

10.3 The Committee noted the finalization of the revision of GESAMP Reports and Studies No.64, which had been published as GESAMP Reports and Studies No.102 (GESAMP Hazard Evaluation Procedure for Chemicals Carried by Ships, 2019) and included a reassigned column E1 and a sub-categorization of column C3 of the GESAMP Hazard Profile table.

10.4 In light of the refinement of column C3 and the reassignment of column E1 of the GESAMP Hazard Profile table, the Committee requested the Secretariat to prepare the draft consequential amendments to appendix I of MARPOL Annex II and submit them to MEPC 76, with a view to approval and subsequent circulation for adoption.

Replacement of International Certificates of Fitness for the Carriage of Dangerous Chemicals in Bulk

10.5 The Committee, having noted that MSC 102 had approved the revised MSC-MEPC.5/Circ.7 on *Guidance on the timing of replacement of existing certificates by revised certificates as a consequence of the entry into force of amendments to chapters 17 and 18 of the IBC Code*, as set out in annex 1 to document PPR 7/22/Add.1, concurrently approved the revised circular for dissemination as MSC-MEPC.5/Circ.7/Rev.1.

Evaluation of products and cleaning additives

10.6 With regard to the categorization of liquid substances, the Committee:

- .1 concurred with the evaluation of products by ESPH 25 and their respective inclusion in lists 1, 3 and 5 of MEPC.2/Circ.25 (issued on 1 December 2019), with validity for all countries and with no expiry date where appropriate;
- .2 concurred with the evaluation of cleaning additives by ESPH 25 and their inclusion in annex 10 of MEPC.2/Circ.25; and
- .3 concurred with the evaluation of products and cleaning additives by the ESPH Working Group at PPR 7 and their inclusion in list 3 and annex 10, respectively, of the next revision of the MEPC.2 circular on *Provisional categorization of liquid substances in accordance with MARPOL Annex II and the IBC Code* (i.e. MEPC.2/Circ.26, to be issued in December 2020), with validity for all countries and with no expiry date where appropriate.

10.7 In this context, the Committee requested the GESAMP/EHS Working Group to provide advice on how to best assess mixtures against the discharge criteria in new paragraph 7.1.4 of regulation 13 of MARPOL Annex II (adopted by resolution MEPC.315(74)).

10.8 Furthermore, the Committee endorsed the addition of a distinguishing qualifier to the product name included in list 1 of the MEPC.2 circular on *Provisional categorization of liquid substances in accordance with MARPOL Annex II and the IBC Code* when products that were already listed in the IBC Code were reassessed.

10.9 The Committee endorsed PPR.1/Circ.9 on *Revised carriage requirements for methyl acrylate and methyl methacrylate*, having noted that the circular had been issued prior to MSC 102 and MEPC 75, in order to notify relevant stakeholders in a timely manner that operational requirements 16.6.1 and 16.6.2 of the IBC Code applied to methyl acrylate and methyl methacrylate. The Committee also noted the same decision by MSC 102.

10.10 In addition, the Committee concurred with the recommendation of the Sub-Committee that chapter 17 of the IBC Code should be amended to include:

- .1 the updated carriage requirements for methyl acrylate and methyl methacrylate; and
- .2 special requirement 16.2.7 in n.o.s. entries for Pollution Category Y, as appropriate.

10.11 The Committee endorsed PPR.1/Circ.10 on *Resubmission of products listed in lists 2 and 3 of the MEPC.2 circular on Provisional categorization of liquid substances in accordance with MARPOL Annex II and the IBC Code*, which set the deadline for evaluating the products to 31 December 2025.

10.12 The Committee endorsed the Sub-Committee's recommendation that the existing entries for the paraffin-like products listed in paragraph 5 of MEPC.1/Circ.886 could be retained on the ship's Certificate of Fitness, even if the renamed and reassessed products were listed in the addendum to the ship's Certificate, since the product names used in the IBC Code and in list 1 of the MEPC.2 circular were different.

Onboard storage period of bunker samples for ships navigating on regular routes

10.13 The Committee noted that the Sub-Committee had considered document MEPC 74/17/1 (Republic of Korea) regarding the onboard storage period of bunker samples for ships navigating on regular routes, and that following the clarification provided during the discussions no further consideration of the document was required.

MATTERS CONSIDERED DURING THE VIRTUAL MEETING

Amendments to the AFS Convention to include controls on cybutryne

10.14 Having noted the report of the Technical Group on Amendments to the AFS Convention, which had been established at PPR 7 (PPR 7/22/Add.1, annex 6), the Committee considered the draft amendments to Annexes 1 and 4 to the AFS Convention, which were set out in annexes 1 and 3 to annex 6 to document PPR 7/22/Add.1.

10.15 In its consideration, the Committee focused particularly on the preferred option for specifying the effective date for ships already bearing an AFS that contained cybutryne, out of the two options shown in square brackets in annex 1 to the report of the Technical Group on Amendments to the AFS Convention. The Committee also noted that, since the next session of MEPC, where the amendments would be expected to be adopted, would be held in June 2021, the draft dates of entry into force of the controls on cybutryne should be amended from 1 July 2022 to 1 January 2023 for new application and from 1 July 2027 to 1 January 2028 for existing application. Therefore, the Committee agreed that the two options in the aforementioned square brackets for specifying the effective date for existing ships should read:

- .1 1 January 2028; or
- .2 at the next scheduled renewal of the anti-fouling system after 1 January 2023, but no later than 60 months following the last application to the ship of an anti-fouling system containing cybutryne.

10.16 Following consideration, the Committee agreed to the second option for specifying the effective date (i.e. "At the next scheduled renewal of the anti-fouling system after 1 January 2023, but no later than 60 months following the last application to the ship of an anti-fouling system containing cybutryne"), as it was in line with article 4(2) of the AFS Convention. In this regard, the Committee noted that, as a consequence, the date field in the International Anti-fouling System Certificate, as shown in square brackets in annex 3 to the report of the Technical Group on Amendments to the AFS Convention (PPR 7/22/Add.1, annex 6), would be left blank for the certificate-issuing authority to fill in.

10.17 The Committee approved the draft amendments to annexes 1 and 4 to the AFS Convention, set out in annex 7, and requested the Secretary-General to circulate them in accordance with article 16(2) of the AFS Convention, with a view to adoption at MEPC 76.

10.18 In this context, the Committee agreed to the two draft operative paragraphs to be included in the requisite resolution on adoption of the amendments to the AFS Convention, set out in annex 7 to document PPR 7/22/Add.1, and requested the Secretariat to include the two operative paragraphs in the draft resolution that would be submitted to MEPC 76 for adoption.

10.19 Moreover, the Committee encouraged Member States to conduct baseline studies prior to the entry into force of controls on cybutryne, in order to allow the subsequent determination of the effectiveness of the controls.

10.20 In addition, the Committee requested the governing bodies of the London Convention and Protocol, at their next meeting, to consider a revision of the *Revised guidance on best management practices for removal of anti-fouling coatings from ships, including TBT hull paints* (LC-LP.1/Circ.31/Rev.1), in light of the introduction of controls on cybutryne under the AFS Convention, with a view to updating the guidance contained in AFS.3/Circ.3/Rev.1, and to inform the Committee of their consideration accordingly.

10.21 Having noted the need to consider an update to the list of items in the Inventory of Hazardous Materials under the Hong Kong Convention to include cybutryne when the respective controls entered into force, the Committee requested the PPR Sub-Committee to advise it on any consequential amendments to appendix 1 of the Hong Kong Convention, taking into account that the Hong Kong Convention had not entered into force.

Sampling of fuel oil

10.22 During consideration of the draft guidelines for onboard sampling of fuel oil intended to be used or carried for use on board a ship, set out in annex 8 to document PPR 7/22/Add.1, the observer from IBIA had the following observations and query with regard to sample handling, specifically in relation to the inclusion of the bunker delivery note details of the fuel oil sampled on the label of the sample (i.e. paragraph 3.1.2 of the draft guidelines):

- .1 the content of a fuel tank on the ship might be a mix of more than one fuel oil delivery as a result of comingling on board the ship or fuel left in the tank when bunkering new fuel; and
- .2 taking into account that the information on the latest bunker delivery note was not relevant to the content of the fuel tank unless one had confidence that the content of the tank was less than 5% at the start of bunkering, it was unclear whether paragraph 3.1.2 of the draft guidelines referred to the details from a specific bunker delivery note or potentially from multiple bunker delivery notes to reflect the content of an onboard fuel oil sample.

10.23 In this context, the observer from IMarEST expressed the view that:

- .1 paragraph 3.1.2 of the draft guidelines implicitly covered the case where more than one set of bunker delivery note details could be included on the label of the sample; and
- .2 taking into account the draft amendments to MARPOL Annex VI considered at this session under agenda item 3 (Consideration and adoption of amendments to mandatory instruments), which stated that the final results obtained from the fuel verification procedure shall be evaluated by the competent authority with respect to how they might be taken forward, the text in paragraph 3.1.2 of the draft guidelines did not need to be changed on the understanding that the bunker note details potentially represented more than one bunker delivery note.

10.24 Having noted the above, the Committee approved MEPC.1/Circ.889 on *2020 Guidelines for onboard sampling of fuel oil intended to be used or carried for use on board a ship*.

Commissioning testing of ballast water management systems

10.25 The Committee approved BWM.2/Circ.70/Rev.1 on *2020 Guidance for the commissioning testing of ballast water management systems*. The delegation of India expressed the view that clarification might be needed on the required number of commissioning tests in certain configurations (e.g. separate port and starboard systems) as the BWM Convention did not capture multiple system installations.

10.26 Furthermore, the Committee instructed the III Sub-Committee, in the context of the next revision of the Survey Guidelines under the Harmonized System of Survey and Certification (HSSC), to amend the paragraphs of HSSC relating to the commissioning testing of ballast water management systems to ensure that there were no references to compliance with regulation D-2.

Ballast water sampling and analysis

10.27 In considering the draft amendments to the *Guidance on ballast water sampling and analysis for trial use in accordance with the BWM Convention and Guidelines (G2)*, set out in annex 5 to document PPR 7/22/Add.1, the Committee noted that, to facilitate the work of the Committee, the Secretariat had prepared the updated draft text of the guidance for the consideration of the Committee, incorporating the amendments agreed by PPR 7 with minor edits as required, set out in the annex to document MEPC 75/10/1.

10.28 Subsequently, the Committee approved BWM.2/Circ.42/Rev.2 on *2020 Guidance on ballast water sampling and analysis for trial use in accordance with the BWM Convention and Guidelines (G2)*.

Heavy fuel oil in Arctic waters

10.29 In considering the draft amendments to MARPOL Annex I to incorporate a prohibition on the use and carriage for use as fuel of heavy fuel oil by ships in Arctic waters, set out in annex 12 to document PPR 7/22/Add.1, the Committee also had for its consideration document MEPC 75/10/7 (FOEI et al.), raising concerns about the impact and effectiveness of the draft prohibition on the use and carriage for use as fuel of heavy fuel oil by ships in Arctic waters and inviting the Committee to consider modifying the proposed draft amendment to MARPOL Annex I by deleting paragraphs 2 and 4 of draft new regulation 43A.

10.30 In the ensuing discussion, the co-sponsors of document MEPC 75/10/7 made statements elaborating their concerns and proposals. As requested, the statements made by the observers from Pacific Environment, WWF, CSC, FOEI and Greenpeace International are set out in annex 16.

10.31 All other delegations that spoke supported the approval of the draft amendments to MARPOL Annex I, as prepared by PPR 7 without changes, recognizing that they represented a delicate compromise which had been reached following careful consideration and negotiations carried out at the PPR Sub-Committee, where the views and concerns of the many stakeholders affected by the amendments had been taken into account. As requested, the statement by the delegation of the Russian Federation is set out in annex 16.

10.32 Following consideration, the Committee approved the draft amendments to MARPOL Annex I on prohibition on the use and carriage for use as fuel of heavy fuel oil by ships in Arctic

waters, as set out in annex 8, and requested the Secretary-General to circulate them in accordance with article 16(2)a of MARPOL, with a view to adoption at MEPC 76.

10.33 In this regard, the observer from IBIA commented on the positive environmental effect of a voluntary shift to distillate oil fuels or other fuels and technology solutions that could significantly reduce Black Carbon emission for ships operating in Arctic waters and expressed confidence that the bunker supply industry could meet the demand stemming from such a shift.

IACS unified interpretations

10.34 The Committee recalled that PPR 7 had noted that IACS UI MPC130 and revision 2 of UI MPC51 would be implemented by IACS Members from 1 July 2020 (PPR 7/22, paragraph 18.8). In this regard, the Committee noted an update provided by the observer from IACS, namely that IACS Members, having considered the comments made at PPR 7, had withdrawn UI MPC130 and revision 2 of UI MPC 51 prior to the intended application date of 1 July 2020. The Committee also noted that IACS continued to work on the issues, taking into account the feedback expressed during PPR 7.

MATTERS DEFERRED TO MEPC 76

10.35 As proposed in document MEPC 75/1/3 (annex 4), the Committee agreed to defer the consideration of documents MEPC 75/10 (Secretariat), paragraphs 2.19 to 2.23, MEPC 75/10/Add.1 (Secretariat), paragraphs 3.4 and 3.6 to 3.13, MEPC 75/10/2 (United States), MEPC 75/10/3 (IACS), MEPC 75/10/4 (IACS), MEPC 75/10/5 (CLIA) and MEPC 75/10/6 (FOEI et al.) to MEPC 76.

10.36 The Committee also recalled that under agenda item 5 (Air pollution prevention) it had agreed to defer detailed consideration of document MEPC 75/5/3 (Republic of Korea) to MEPC 76 in conjunction with the action requested of it by PPR 7 in paragraph 2.20 of document MEPC 75/10.

11 REPORTS OF OTHER SUB-COMMITTEES

MATTERS CONSIDERED BY CORRESPONDENCE PRIOR TO THE VIRTUAL MEETING

11.1 In accordance with the arrangements for the remote session, as outlined in document MEPC 75/1/3 (paragraphs 9 to 12) and its annex 3 (section 7 on agenda item 11) (refer also to relevant corrections in document MEPC 75/1/3/Corr.1 and Corr.2), the Committee considered by correspondence, prior to the virtual meeting, the following documents:

- .1 MEPC 75/11 (Secretariat), setting out the action requested of the Committee in connection with the sixth session of the Sub-Committee on Human Element, Training and Watchkeeping (HTW 6);
- .2 MEPC 75/11/1 (Secretariat), setting out the action requested of the Committee in connection with the sixth session of the Sub-Committee on Implementation of IMO Instruments (III 6) (paragraphs 4.1, 4.2, 4.4, 4.6, and 4.9 to 4.14 only);
- .3 MEPC 75/11/2 (Secretariat), setting out the action requested of the Committee in connection with the sixth session of the Sub-Committee on Carriage of Cargoes and Containers (CCC 6);

- .4 MEPC 75/11/3 (Norway et al.), commenting on the report of III 6 and, in particular, on the draft MSC-MEPC.5 circular on model agreement for the authorization of recognized organizations acting on behalf of the Administration;
- .5 MEPC 75/2/2 (Secretariat), setting out the action requested of the Committee in connection with the outcome of MSC 101;
- .6 MEPC 75/2/6 (Secretariat), setting out the action requested of the Committee in connection with the outcomes of A 31, C/ES.30 and C 123;
- .7 MEPC 74/11 (Secretariat), setting out the action requested of the Committee in connection with the outcome of III 5; and
- .8 A 31/10/2 (Germany et al.), commenting on the process of updating the Survey Guidelines under the Harmonized System of Survey and Certification (HSSC).

11.2 During the virtual meeting, the Committee reconfirmed the Chair's proposals in annex 3 to document MEPC 75/1/3 as corrected, as set out in paragraphs 11.3 to 11.22.

Outcome of HTW 6

11.3 The Committee noted the advice of HTW 6 that a conversion of STCW model courses into e-learning model courses would:

- .1 change the current approach and goal of model courses, as they were not courses ready to be delivered but tools assisting Member States and other stakeholders to develop detailed training programmes; and
- .2 require careful consideration of any accountability implications for the subsequent assessment of competence, training quality and independent evaluations relating to this training material in accordance with the STCW Convention.

11.4 In addition, the Committee concurred with the decision of MSC 102 to request the III Sub-Committee to consider how e-learning training material could assist with the implementation of instruments other than the STCW Convention and advise the Committee accordingly.

11.5 Furthermore, the Committee concurred with the decision of MSC 102 to endorse the systematic use of the Model Course Trust Fund to hire experts for the development and revision of model courses, subject to the Secretariat's contracting process, to be applied to all IMO bodies dealing with model courses, as necessary.

Outcome of III 5

11.6 The Committee recalled that, owing to time constraints, MEPC 74 had deferred the consideration of the action items requested by III 5 (MEPC 74/11), except for action items 3 and 16, to MEPC 75, and, at the same time, had instructed the III Sub-Committee to take necessary actions as per the instruction of MSC 101.

11.7 Having recalled that the Maritime Safety Committee, at its 101st session (5 to 14 June 2019), had considered the outcome of III 5, and had taken action as recorded in paragraphs 10.1 to 10.16 of its report (MSC 101/24), the Committee concurred with the decisions of MSC 101.

11.8 With regard to the MEPC-specific action requested of the Committee by III 5 in paragraph 3.8 of document MEPC 74/11, pertaining to document III 3/7/1 (China), the Committee instructed the PPR Sub-Committee to consider this document and to advise it accordingly.

Outcome of III 6

11.9 The Committee approved the report of III 6 in general and took action as outlined in the following paragraphs 11.10 to 11.14.

11.10 In line with the outcome of MSC 102, the Committee re-affirmed the methodology agreed by III 3 and endorsed by MSC 97 and MEPC 70 (MEPC 70/18, paragraph 10.10) for developing guidelines for port State control (PSC) and amendments thereto, under the coordination of the Sub-Committee, for consolidation within the *Procedures for port State control*, when deciding on the attribution of new tasks to sub-committees.

11.11 The Committee noted that, as authorized by MSC and MEPC, III 6 had prepared draft Assembly resolutions, and that A 31 had subsequently adopted them as listed below:

- .1 *Procedures for port State control, 2019* (resolution A.1138(31));
- .2 *Guidance on communication of information by Member States* (resolution A.1139(31));
- .3 *Survey guidelines under the Harmonized System of Survey and Certification (HSSC), 2019* (resolution A.1140(31)); and
- .4 *2019 Non-exhaustive list of obligations under instruments relevant to the IMO Instruments Implementation Code (III Code)* (resolution A.1141(31)).

11.12 The Committee concurred with the decision by MSC 102 to instruct III 7 to further consider the text only of paragraph 6.5.5 of the draft MSC-MEPC.5 circular on model agreement for the authorization of recognized organizations acting on behalf of the Administration (III 6/15, annex 8), taking into account the amended text proposed in paragraph 10 of document MEPC 75/11/3 (Norway et al.), and in this context to also consider paragraph 5.3.2.4 of the recommendatory part III of the RO Code, with a view to advising the Committees on whether the text of both paragraphs should be aligned.

11.13 Taking into account the postponement of III 7 to 2021, the Committee concurred with the decision of MSC 102 that:

- .1 the correspondence groups established by III 6 should continue their work on the basis of their agreed terms of reference;
- .2 the groups should also take into account, as per the instructions to be received from the Chair of the Sub-Committee in consultation with the chairs of other relevant bodies, any pertinent outcome of the IMO bodies that met since III 6; and
- .3 such additional work should correspond to the regular work of the correspondence groups established at every session in order to progress the work of the Sub-Committee as much as possible, in particular regarding the preparation of draft Assembly resolutions.

11.14 The Committee noted the biennial status report of the III Sub-Committee for the 2018-2019 biennium and concurred with the decision of MSC 102 to approve the III Sub-Committee's biennial agenda and the provisional agenda for III 7, as set out in annexes 25 and 26 to document MSC 102/24, respectively, taking into account that the consideration of two proposals for new outputs by III 6 had been postponed to the next sessions of the Committees and that the Sub-Committee had been instructed to further review the draft model agreement for the authorization of recognized organizations acting on behalf of the Administration.

Outcome of MSC 101 and A 31

Analysis of Consolidated Audit Summary Reports under the IMO Member State Audit Scheme

11.15 The Committee concurred with the decisions made and action taken by MSC 101 with regard to the outcome of the analysis of the first Consolidated Audit Summary Report (CASR) under the IMO Member State Audit Scheme (MEPC 75/2/2, paragraph 2.11; and MSC 101/24, paragraph 10.10).

11.16 Furthermore, the Committee noted the invitation of A 31 for MSC and MEPC to consider the CASRs containing lessons learned from 17 mandatory audits completed in 2017 and 2018 (Circular Letter No.4028) and, in due course, to advise the Council of the outcome of their consideration.

11.17 In this regard, the Committee, having noted that MSC 102 had instructed the III Sub-Committee to consider the CASRs completed in 2017 and 2018 and report to the Committees the outcome of its consideration, concurrently instructed the III Sub-Committee to do so.

Replacement of references to resolutions A.739(18) and A.789(19) in existing IMO instruments with those of the mandatory parts of the RO Code

11.18 The Committee concurred with the decision of MSC 101 that references to resolutions A.739(18) on *Guidelines for the authorization of organizations acting on behalf of the Administration* and A.789(19) on *Specifications on the survey and certification functions of recognized organizations acting on behalf of the Administration* in existing IMO instruments should be replaced with references to the mandatory parts of the RO Code, and that the above-mentioned resolutions should be revoked by the Assembly, as noted by A 31. In addition, the Committee requested the Secretariat to advise it at a future session of any instances of the above-mentioned resolutions in existing IMO instruments under its purview.

Process of updating the Survey Guidelines under the Harmonized System of Survey and Certification

11.19 Having noted that A 31 had invited MSC 102 and MEPC 75 to consider the proposals made in document A 31/10/2 (Germany et al.) on the process of updating the Survey Guidelines under the Harmonized System of Survey and Certification (HSSC), with a view to taking action as appropriate, and in line with the outcome of MSC 102, the Committee agreed to postpone consideration of this matter, including document A 31/10/2, to MEPC 76.

Outcome of CCC 6

11.20 The Committee approved the updated biennial status report of the Sub-Committee for the 2018-2019 biennium as set out in the report of CCC 6 (CCC 6/14), annex 11.

11.21 Furthermore, the Committee noted that MSC 102 had approved changing the target completion year of the existing output on "Amendments to the IGF Code and development of guidelines for low-flashpoint fuels" to "continuous", taking into account the work plan for the next phase of the development of the IGF Code.

11.22 In addition, the Committee concurred with the decision of MSC 102 to approve the CCC Sub-Committee's biennial agenda and the provisional agenda for CCC 7, as set out in annexes 25 and 26 to document MSC 102/24, respectively.

MATTERS CONSIDERED DURING THE VIRTUAL MEETING

Exemption of UNSP barges from survey and certification requirements

11.23 Having considered the draft amendments to MARPOL Annexes I, IV and VI concerning the exemption of unmanned non-self-propelled (UNSP) barges from survey and certification requirements, which had been prepared by III 6 (III 6/15, annex 9), the Committee approved them, as set out in annex 9, and requested the Secretary-General to circulate them in accordance with MARPOL Article 16(2), with a view to adoption at MEPC 76.

11.24 In this connection, the Committee approved, in principle, the draft MEPC.1 circular on guidelines for exemption of unmanned non-self-propelled (UNSP) barges from the survey and certification requirements under the MARPOL Convention, as set out in annex 10 to document III 6/15, with a view to approving the circular at MEPC 76 subject to the associated MARPOL amendments being adopted.

MATTERS DEFERRED TO MEPC 76

11.25 As proposed in document MEPC 75/1/3 (annex 4), the Committee agreed to defer the consideration of document MEPC 75/11/1 (Secretariat), paragraphs 4.3 and 4.5, to MEPC 76.

12 TECHNICAL COOPERATION ACTIVITIES FOR THE PROTECTION OF THE MARINE ENVIRONMENT

12.1 In accordance with the arrangements for the remote session, as outlined in document MEPC 75/1/3 (paragraphs 9 to 12) and its annex 3 (section 8 on agenda item 12), the Committee considered by correspondence, prior to the virtual meeting, the following documents:

- .1 MEPC 75/12 (Secretariat), providing an update on the activities implemented under the IMO Integrated Technical Cooperation Programme (ITCP) from 1 January to 31 December 2019;
- .2 MEPC 75/12/1 (Secretariat), providing an update on major projects from 1 January to 31 December 2019;
- .3 MEPC 75/12/2 (REMPEC), providing an update from REMPEC for the period from 1 January to 31 December 2019;
- .4 MEPC 75/12/3 (Kenya), on the outcomes of an ITCP-funded regional workshop for Eastern and Southern Africa on effective implementation and enforcement of MARPOL, building on IMSAS findings;
- .5 MEPC 75/12/4 (Secretariat), providing an update on the work of the Global Industry Alliance to Support Low Carbon Shipping; and

- .6 MEPC 75/12/5 (Norway), on the importance of technical cooperation in meeting objectives of the IMO framework on environmental protection and climate change.

12.2 During the virtual meeting, the Committee reconfirmed the Chair's proposals in annex 3 to document MEPC 75/1/3, as set out in the following paragraphs 12.3 to 12.5.

Update on activities under ITCP, REMPEC and Major Projects

12.3 The Committee noted the information provided in the following documents:

- .1 MEPC 75/12 (Secretariat), on the Organization's 61 technical cooperation activities related to the protection of the marine environment implemented in 2019 under ITCP, in coordination with the UN Environment Regional Seas Programmes, as well as the activities provided under IMO's Major Projects;
- .2 MEPC 75/12/1 (Secretariat), on the activities carried out under IMO's Major Projects related to the protection of the marine environment that are financed by external sources;
- .3 MEPC 75/12/2 (REMPEC), providing an overview of the main decisions of the twenty-first Ordinary Meeting of the Contracting Parties to the Barcelona Convention, which underpins the work of REMPEC, as well as further details on REMPEC's 10 main areas of work related to the protection of the marine environment in the Mediterranean Sea region in 2019; and
- .4 MEPC 75/12/4 (Secretariat), providing an update on the work of the Global Industry Alliance to Support Low Carbon Shipping, within the framework of the GloMEEP project.

Outcomes of an ITCP-funded regional workshop for Eastern and Southern Africa on effective implementation and enforcement of MARPOL, building on IMSAS findings

12.4 The Committee noted the information provided in document MEPC 75/12/3 (Kenya), highlighting the outcomes of a TC workshop addressing barriers hampering full implementation and enforcement of MARPOL in Eastern and Southern African Member States; and, taking into account relevant IMSAS findings, agreed to consider further technical assistance actions (either through ITCP or specific projects) to support the full implementation and enforcement of the MARPOL Convention and its Annexes.

Importance of technical cooperation in meeting objectives of the IMO framework on environmental protection and climate change

12.5 The Committee noted the information set out in document MEPC 75/12/5 (Norway), providing an overview of environment-related projects funded by Norway, which highlighted the results gained from these projects, and inviting other donors to join in such initiatives. The Committee also noted that external donor contributions were key in complementing the Organization's internal resources dedicated to technical assistance.

13 CAPACITY-BUILDING FOR THE IMPLEMENTATION OF NEW MEASURES

13.1 In accordance with the arrangements for the remote session, as outlined in document MEPC 75/1/3 (paragraphs 9 to 12) and its annex 3 (section 9 on agenda item 13), the Committee considered by correspondence, prior to the virtual meeting, the following documents:

- .1 MEPC 75/13 (Vice-Chair), providing an assessment of capacity-building implications of the amendments to mandatory instruments at MEPC 74; and
- .2 MSC 101/24 (Secretariat), in particular paragraphs 16.5 to 16.7, containing the outcome of MSC 101 with regard to the future assessment of capacity-building implications of amendments to mandatory instruments.

13.2 During the virtual meeting, the Committee reconfirmed the Chair's proposals in annex 3 to document MEPC 75/1/3, as set out in the following paragraphs 13.3 to 13.5.

Assessment of capacity-building implications

13.3 The Committee noted the information in document MEPC 75/13 (Vice-Chair), setting out the assessment of the implications of the draft amendments to mandatory instruments approved at MEPC 74.

13.4 The Committee agreed that it would not be necessary to establish the Ad Hoc Capacity-building Needs Analysis Group (ACAG) at this session.

Future assessment of capacity-building implications of amendments to mandatory instruments

13.5 The Committee noted the decision of MSC 101 (MSC 101/24, paragraphs 16.5 to 16.7), and concurred that, in the future, the assessment of capacity-building implications of amendments to mandatory instruments would be done at the stage of adoption and that the Drafting Group on Amendments to Mandatory Instruments should henceforth carry out the assessment when considering the final text of such amendments.

14 WORK PROGRAMME OF THE COMMITTEE AND SUBSIDIARY BODIES

MATTERS CONSIDERED DURING THE VIRTUAL MEETING

Biennial agendas of the PPR, CCC and III Sub-Committees and provisional agendas for their forthcoming sessions

Sub-Committee on Pollution Prevention and Response (PPR)

Biennial agenda of the PPR Sub-Committee and provisional agenda for PPR 8

14.1 The Committee noted the biennial status report of the Sub-Committee for the 2020-2021 biennium, as set out in annex 19 to document PPR 7/22/Add.1.

14.2 Having considered the proposed reduced provisional agenda for PPR 8 set out in annex 2 to document MEPC 75/WP.4, the Committee:

- .1 noted that PPR 8 had been scheduled to take place from 22 to 26 March 2021;
- .2 approved the reduced provisional agenda for PPR 8, as set out in annex 11; and
- .3 encouraged Member States and international organizations to refrain from submitting documents to PPR 8 that were not directly related to the outcomes of the correspondence and intersessional groups that would report to the

Sub-Committee, or did not concern the development of a standard for verification of ballast water compliance monitoring systems under Any other business.

Sub-Committee on Carriage of Cargoes and Containers (CCC)

Biennial agenda of the CCC Sub-Committee and provisional agenda for CCC 7

14.3 The Committee recalled its decisions regarding the biennial status report and biennial agenda of the CCC Sub-Committee and the provisional agenda for CCC 7 (paragraphs 11.20 to 11.22).

Sub-Committee on Implementation of IMO Instruments (III)

Biennial agenda of the III Sub-Committee and provisional agenda for III 7

14.4 The Committee recalled its decisions regarding the biennial status report and biennial agenda of the III Sub-Committee and the provisional agenda for III 7 (paragraphs 11.12 to 11.14).

Status of outputs of MEPC for the 2020-2021 biennium

14.5 The status of outputs for the 2020-2021 biennium and the post-biennial agenda of MEPC, as prepared by the Secretariat taking into account the outcome of the meeting, are set out in annex 12 and annex 13, respectively.

Items to be included in the Committee's agenda for MEPC 76

14.6 Prior to considering the part of document MEPC 75/WP.4 concerning the items to be included in the agenda for MEPC 76, some delegations expressed concerns with regard to the reduced time that was available for deliberations during 5-day virtual meetings with 3 hours of interpretation on each day, and supported the Committee bringing to the attention of the Council the challenges faced at this session due to time constraints, including the extension of the virtual meeting on some days without interpretation.

14.7 In this context, the delegation of the Cook Islands recalled the proposal it had put forward previously (see paragraph 7.82) for more days to be allocated to future virtual meetings of the Committee and the Intersessional Working Group on Reduction of GHG Emissions from Ships (ISWG-GHG), emphasizing that 5 days of an in-person meeting were equivalent to 8 days of a virtual meeting.

14.8 The Secretariat assured the Committee that the concerns expressed and the proposals made during this session in relation to working arrangements would be taken into account when planning the work for future remote sessions of the Committee and ISWG-GHG, and would also be conveyed to the Council as appropriate.

14.9 In this regard, some delegations expressed the view that the issues surrounding working arrangements should be considered by the Council more broadly, as they were not restricted to MEPC only, with a view to addressing not only the time available during virtual meetings but also, inter alia, the practice of discussing the majority of matters during virtual meetings rather than making effective use of the option of correspondence, taking into account that a remote session had been defined by the Council as one that contained both meetings by correspondence and virtual meetings during the session.

14.10 The delegation of Tuvalu, supported by the delegation of Solomon Islands, recalled that for Pacific States, among others, the virtual meetings of this MEPC session had been taking place between 9 pm and 4 am, depending on the specific time-zone of each State, thus

providing a tangible illustration of the disadvantage that Pacific States systematically faced. In this connection, the delegation of Tuvalu expressed its preference that better working arrangements should include dedicated workstreams on reduction of GHG emissions from ships rather than prolonged MEPC sessions.

14.11 The Committee noted that the Secretariat would use the experience gained from this remote session and from MSC 102 to better facilitate future remote sessions of the Committees and their subsidiary bodies.

14.12 Having agreed that the discussions on working arrangements would be reported to the Council, the Committee proceeded to consider the part of document MEPC 75/WP.4 concerning arrangements for MEPC 76. In this connection, the Committee:

- .1 noted that MEPC 76 had been tentatively scheduled to take place from 10 to 17 June 2021, and that MEPC 77 had been tentatively scheduled to take place from 9 to 12 November 2021;
- .2 approved the items to be included in the agenda for MEPC 76, as set out in annex 1 to document MEPC 75/WP.4;
- .3 agreed that the Chair would issue a document prior to MEPC 76, setting out the proposals by the Chair with regard to arrangements for the session; and
- .4 encouraged Member States and international organizations to take into account the heavy workload of the Committee when considering submitting new documents which were not related to currently considered issues, and to also refrain from submitting proposals for new outputs to MEPC 76.

14.13 The final list of items to be included in the provisional agenda for the Committee's next session, as prepared by the Secretariat in consultation with the Chair, is set out in annex 14.

Correspondence groups and intersessional meetings

Correspondence groups

14.14 The Committee recalled that it had decided under relevant agenda items to establish the following correspondence groups:

- .1 Correspondence Group on Air Pollution and Energy Efficiency; and
- .2 Correspondence Group on the Development of Technical Guidelines on Carbon Intensity Reduction.

14.15 The Committee also noted that the Correspondence Group on Possible Introduction of EEDI Phase 4, established at MEPC 74, was due to present its final report to MEPC 76.

Intersessional meetings

14.16 The Committee approved, subject to endorsement by the Council, the holding of:

- .1 an intersessional meeting of the ESPH Technical Group in 2021; and
- .2 the eighth meeting of the Intersessional Working Group on Reduction of GHG Emissions from Ships from 24 to 28 May 2021.

MATTERS DEFERRED TO MEPC 76

14.17 As proposed in document MEPC 75/1/3 (annex 4), the Committee agreed to defer the consideration of documents MEPC 75/14 (Australia et al.), MEPC 75/14/1 (FOEI et al.), MEPC 75/14/2 (Austria et al.), MEPC 75/14/3 (World Maritime University), MEPC 74/17/2 (Canada and France), MEPC 74/17/3 (FOEI et al.), MEPC 74/INF.14 (CMS), MEPC 74/INF.28 and MEPC 74/INF.36 (Canada), and MEPC 75/WP.2 (Secretariat) to MEPC 76.

15 APPLICATION OF THE COMMITTEES' METHOD OF WORK

15.1 In accordance with the arrangements for the remote session, as outlined in document MEPC 75/1/3 (paragraphs 9 to 12) and its annex 3 (section 10 on agenda item 15), the Committee considered by correspondence, prior to the virtual meeting, document MSC 101/24 (Secretariat), in particular paragraph 20.2, containing the outcome of MSC 101 with regard to the draft revised Committees' method of work.

15.2 During the virtual meeting, the Committee reconfirmed the Chair's proposals in annex 3 to document MEPC 75/1/3 and, having noted that MSC 101 had approved the revised Committees' method of work, as set out in annex 29 to document MSC 101/24/Add.1, subject to concurrent approval by MEPC, approved MSC-MEPC.1/Circ.5/Rev.2 on *Organization and method of work of the Maritime Safety Committee and the Marine Environment Protection Committee and their subsidiary bodies*, incorporating the corrections that had previously been issued as MSC-MEPC.1/Circ.5/Rev.1/Corr.1.

16 ANY OTHER BUSINESS

16.1 In accordance with the arrangements for the remote session, as outlined in document MEPC 75/1/3 (paragraphs 9 to 12) and its annex 3 (section 11 on agenda item 16), the Committee considered by correspondence, prior to the virtual meeting, the following documents:

- .1 MEPC 75/16 (Secretariat), providing an update on recent inter-agency activities;
- .2 MEPC 75/16/1 (Secretariat), providing an update on the intergovernmental conference on marine biodiversity of areas beyond national jurisdiction (BBNJ);
- .3 MEPC 74/17 and Add.1 (Secretariat), providing an update on recent inter-agency activities;
- .4 MEPC 74/INF.15 (Secretariat), providing information on the Global Integrated Shipping Information System (GISIS);
- .5 MEPC 74/INF.16 (Secretariat), on the calculation of recycling capacity for meeting the entry-into-force conditions of the Hong Kong Convention; and
- .6 MEPC 74/INF.29 (Australia et al.), providing information on informal biofouling discussions.

16.2 During the virtual meeting, the Committee reconfirmed the Chair's proposals in annex 3 to document MEPC 75/1/3, as set out in the following paragraphs 16.3 to 16.7.

Inter-agency cooperation activities on issues relating to the protection of the marine environment

16.3 The Committee noted the information contained in documents MEPC 74/17, MEPC 74/17/Add.1, MEPC 75/16 and MEPC 75/16/1 (Secretariat), providing an update on recent work carried out by the Secretariat, in cooperation with other United Nations agencies, on issues relating to the protection of the marine environment; and additional information with respect to the outcome of the second and third sessions of the intergovernmental conference on marine biodiversity of areas beyond national jurisdiction (BBNJ).

16.4 The Committee requested the Secretariat to continue to update it with any significant inter-agency cooperation relating to the work of the Committee.

Status of the Hong Kong Convention

16.5 The Committee noted the information provided in document MEPC 74/INF.16 (Secretariat), outlining the calculation of recycling capacity for meeting the entry-into-force conditions of the Hong Kong Convention; and invited Member States to ratify the Hong Kong Convention if they had not already done so.

Update on information sharing on biofouling

16.6 The Committee noted document MEPC 74/INF.29 (Australia et al.), providing an update on informal discussions and information sharing on biofouling, including a summary of a meeting of interested parties held in the margins of MEPC 73, chaired by Australia and New Zealand.

Enhancements to GISIS

16.7 The Committee noted the information in document MEPC 74/INF.15 (Secretariat), informing the Committee of recent enhancements to GISIS modules relevant to IMO's environmental conventions.

17 ELECTION OF THE CHAIR AND VICE-CHAIR FOR 2021

17.1 The Committee, in accordance with rule 18 of its Rules of Procedure, unanimously re-elected Mr. H. Saito (Japan) as Chair and Mr. H. Conway (Liberia) as Vice-Chair, both for 2021.

18 ACTION REQUESTED OF OTHER IMO ORGANS

18.1 The Council, at its 125th session, is invited to:

- .1 consider the report of the seventy-fifth session of MEPC and, in accordance with Article 21(b) of the IMO Convention, transmit it, with any comments and recommendations, to the thirty-second session of the Assembly;
- .2 note that the Committee adopted amendments to MARPOL Annex VI and the BWM Convention (section 3 and annexes 1 and 2);
- .3 note the action taken by the Committee on issues related to ballast water management, in particular the approval of ballast water management systems that make use of Active Substances (section 4);

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- .4 note the action taken by the Committee on issues related to air pollution and energy efficiency of ships, in particular the adoption of resolution MEPC 326(75) on *2020 Guidelines for monitoring the worldwide average sulphur content of fuel oils supplied for use on board ships* (sections 5 and 6 and annex 3);
 - .5 note the action taken by the Committee on issues related to the reduction of GHG emissions from ships, in particular the adoption of resolution MEPC.327(75) on *Encouragement of Member States to develop and submit voluntary National Action Plans to address GHG emissions from ships*; the approval of the draft amendments to MARPOL Annex VI concerning mandatory goal-based technical and operational measures to reduce carbon intensity of international shipping; the approval of the terms of reference and arrangements for conducting a comprehensive impact assessment of the short-term measure; the approval of the Fourth IMO GHG Study 2020; and the consideration of a proposal co-sponsored by several industry associations for the development of a research and development (R&D) programme to accelerate the introduction of low-carbon and zero-carbon technologies and fuels (section 7 and annexes 4 to 6);
 - .6 note the action taken by the Committee on the outcome of PPR 7, in particular the endorsement of the evaluation of products and cleaning additives by the PPR Sub-Committee and the development of associated guidance; the approval of the draft amendments to annexes 1 and 4 to the AFS Convention; the approval of MEPC.1/Circ.889 on *2020 Guidelines for onboard sampling of fuel oil intended to be used or carried for use on board a ship*; the approval of BWM.2/Circ.70/Rev.1 on *2020 Guidance for the commissioning testing of ballast water management systems*; the approval of BWM.2/Circ.42/Rev.2 on *2020 Guidance on ballast water sampling and analysis for trial use in accordance with the BWM Convention and Guidelines (G2)*; and the approval of the draft amendments to MARPOL Annex I concerning prohibition on the use and carriage for use as fuel of heavy fuel oil by ships in Arctic waters (section 10 and annexes 7 and 8);
 - .7 note that the Committee took a decision concurrent with that of MSC 102 on the outcome of HTW 6 regarding a conversion of STCW model courses into e-learning model courses (paragraph 11.3 to 11.5);
 - .8 note the action taken by the Committee on the outcome of III 5 and III 6, in particular that the Committee took a decision concurrent with that of MSC 102 to instruct the III Sub-Committee to consider the CASRs completed in 2017 and 2018 and to report to the Committees the outcome of its consideration; that the Committee took a decision concurrent with that of MSC 102 concerning replacement of references to resolutions A.739(18) and A.789(19) in existing IMO instruments with those of the mandatory parts of the RO Code; and the approval of draft amendments to MARPOL Annexes I, IV and VI concerning the exemption of unmanned non-self-propelled (UNSP) barges from survey and certification requirements (section 11);
 - .9 note the action taken by the Committee regarding technical cooperation activities for the protection of the marine environment (section 12);
 - .10 note the status report of the outputs of MEPC for the 2020-2021 biennium (paragraph 14.5 and annex 12);

- .11 consider how to better facilitate future remote sessions of the Committees and their subsidiary bodies, taking into account the concerns expressed and the proposals made during MEPC 75 in relation to working arrangements (paragraphs 14.6 to 14.11);
 - .12 note that the Committee approved the items to be included in the provisional agenda of MEPC 76 (paragraph 14.13 and annex 14);
 - .13 endorse the holding of the eighth meeting of the Intersessional Working Group on Reduction of GHG Emissions from Ships, from 24 to 28 May 2021, and an intersessional meeting of the ESPH Working Group in 2021 (paragraph 14.16); and
 - .14 note that the Committee approved MSC-MEPC.1/Circ.5/Rev.2 on *Organization and method of work of the Maritime Safety Committee and the Marine Environment Protection Committee and their subsidiary bodies* (paragraph 15.2).
- 18.2 The Maritime Safety Committee, at its 103rd session, is invited to:
- .1 note that the Committee approved MSC-MEPC.5/Circ.7/Rev.1 on *Guidance on the timing of replacement of existing certificates by revised certificates as a consequence of the entry into force of amendments to chapters 17 and 18 of the IBC Code* (paragraph 10.5);
 - .2 note that the Committee endorsed PPR.1/Circ.9 on *Revised carriage requirements for methyl acrylate and methyl methacrylate* (paragraph 10.9);
 - .3 note that the Committee took a decision concurrent with that of MSC 102 on the outcome of HTW 6 regarding a conversion of STCW model courses into e-learning model courses (paragraph 11.3 to 11.5);
 - .4 note that the Committee concurred with the decisions made and action taken by MSC 101 with regard to the outcome of the analysis of the first Consolidated Audit Summary Report (CASR) under the IMO Member State Audit Scheme (paragraph 11.15);
 - .5 note that the Committee instructed the III Sub-Committee to consider the CASRs completed in 2017 and 2018 and report to the Committees the outcome of its consideration (paragraph 11.17);
 - .6 note that the Committee took a decision concurrent with that of MSC 102 concerning replacement of references to resolutions A.739(18) and A.789(19) in existing IMO instruments with those of the mandatory parts of the RO Code (paragraph 11.18);
 - .7 note that the Committee took a decision concurrent with that of MSC 101 that, in the future, the assessment of capacity-building implications of amendments to mandatory instruments would be done at the stage of adoption and that the Drafting Group on Amendments to Mandatory Instruments should henceforth carry out the assessment when considering the final text of such amendments (paragraph 13.5); and

- .8 note that the Committee approved MSC-MEPC.1/Circ.5/Rev.2 on *Organization and method of work of the Maritime Safety Committee and the Marine Environment Protection Committee and their subsidiary bodies* (paragraph 15.2).

18.3 The Technical Cooperation Committee, at its seventieth session, is invited to:

- .1 note the action taken by the Committee on issues related to the reduction of GHG emissions from ships, in particular the approval of the draft amendments to MARPOL Annex VI concerning mandatory goal-based technical and operational measures to reduce carbon intensity of international shipping; and the approval of the terms of reference and arrangements for conducting a comprehensive impact assessment of the short-term measure (section 7 and annexes 5 and 6);
- .2 invite TC 70 to consider possible means of resource mobilization for assisting developing countries, in particular LDCs and SIDS, to complement any response if the comprehensive impact assessment of the short-term measure were to find that there were likely to be disproportionately negative impacts on those States (paragraph 7.42 to 7.44); and
- .3 note the action taken by the Committee regarding technical cooperation activities for the protection of the marine environment (section 12).

18.4 The Technical Cooperation Committee, at its seventy-first session, is invited to note the action taken by the Committee on the outcome of HTW 6, in particular that the Committee noted the advice of the Sub-Committee regarding a conversion of STCW model courses into e-learning model courses; and took a decision concurrent with that of MSC 102 to request the III Sub-Committee to consider how e-learning training material could assist with the implementation of instruments other than the STCW Convention and to endorse the systematic use of the Model Course Trust Fund to hire experts for the development and revision of model courses, subject to the Secretariat's contracting process, to be applied to all IMO bodies dealing with model courses, as necessary (paragraph 11.3 to 11.5).

18.5 The session was adjourned on 7 December 2020, following the conclusion of the 5-day correspondence period provided in accordance with paragraph 21 of the *Interim guidance to facilitate remote sessions of the Committees during the COVID-19 pandemic* (ALCOM/ES/5/1, annex 1).

(The annexes to this report have been issued as document MEPC 75/18/Add.1)

MARINE ENVIRONMENT PROTECTION
COMMITTEE
75th session
Agenda item 18

MEPC 75/18/Add.1
15 December 2020
Original: ENGLISH

**REPORT OF THE MARINE ENVIRONMENT PROTECTION COMMITTEE
ON ITS SEVENTY-FIFTH SESSION**

Attached are annexes 1 to 16 to the report of the Marine Environment Protection Committee on its seventy-fifth session (MEPC 75/18).

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| ANNEX 1 | RESOLUTION MEPC.324(75) – AMENDMENTS TO MARPOL ANNEX VI (PROCEDURES FOR SAMPLING AND VERIFICATION OF THE SULPHUR CONTENT OF FUEL OIL AND THE EEDI) |
| ANNEX 2 | RESOLUTION MEPC.325(75) – AMENDMENTS TO REGULATION E-1 AND APPENDIX I OF THE INTERNATIONAL CONVENTION FOR THE CONTROL AND MANAGEMENT OF SHIPS' BALLAST WATER AND SEDIMENTS, 2004 |
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ANNEX 1**RESOLUTION MEPC.324(75)
(adopted on 20 November 2020)****AMENDMENTS TO THE ANNEX OF THE PROTOCOL OF 1997 TO AMEND THE
INTERNATIONAL CONVENTION FOR THE PREVENTION OF POLLUTION FROM SHIPS,
1973, AS MODIFIED BY THE PROTOCOL OF 1978 RELATING THERETO****Amendments to MARPOL Annex VI****(Procedures for sampling and verification of the sulphur content of fuel oil and
the Energy Efficiency Design Index (EEDI))**

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 conferred upon it by international conventions for the prevention and control of marine pollution from ships,

RECALLING ALSO article 16 of the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocols of 1978 and 1997 relating thereto (MARPOL), which specifies the amendment procedure and confers upon the appropriate body of the Organization the function of considering amendments thereto for adoption by the Parties,

RECALLING FURTHER that MEPC.1/Circ.882 had requested the Parties to apply the amendments to appendix VI of MARPOL Annex VI related to the verification procedure for a MARPOL Annex VI fuel oil sample (regulation 18.8.2 or regulation 14.8) in advance of their entry into force,

HAVING CONSIDERED, at its seventy-fifth session, proposed amendments to MARPOL Annex VI concerning procedures for sampling and verification of the sulphur content of fuel oil and the Energy Efficiency Design Index (EEDI), which were circulated in accordance with article 16(2)(a) of MARPOL,

1 ADOPTS, in accordance with article 16(2)(d) of MARPOL, amendments to MARPOL Annex VI, the text of which is set out in the annex to the present resolution;

2 DETERMINES, in accordance with article 16(2)(f)(iii) of MARPOL, that the amendments shall be deemed to have been accepted on 1 October 2021 unless prior to that date, not less than one third of the Parties or Parties the combined merchant fleets of which constitute not less than 50% of the gross tonnage of the world's merchant fleet, have communicated to the Organization their objection to the amendments;

3 INVITES the Parties to note that, in accordance with article 16(2)(g)(ii) of MARPOL, the said amendments shall enter into force on 1 April 2022 upon their acceptance in accordance with paragraph 2 above;

4 INVITES ALSO the Parties to consider the early application of the annexed amendments;

5 REQUESTS the Secretary-General, for the purposes of article 16(2)(e) of MARPOL, to transmit certified copies of the present resolution and the text of the amendments contained in the annex to all Parties to MARPOL;

6 REQUESTS ALSO the Secretary-General to transmit copies of the present resolution and its annex to Members of the Organization which are not Parties to MARPOL.

ANNEX

AMENDMENTS TO MARPOL ANNEX VI

(Procedures for sampling and verification of the sulphur content of fuel oil and the Energy Efficiency Design Index (EEDI))

Regulation 1

Application

- 1 The full text of regulation 1 is replaced by the following:

"The provisions of this Annex shall apply to all ships, except where expressly provided otherwise."

Regulation 2

Definitions

- 2 New paragraphs 52 to 56 are inserted after paragraph 51, as follows:

"52 *Sulphur content of fuel oil* means the concentration of sulphur in a fuel oil, measured in % m/m as tested in accordance with a standard acceptable to the Organization.¹

53 *Low-flashpoint fuel* means gaseous or liquid fuel oil having a flashpoint lower than otherwise permitted under paragraph 2.1.1 of regulation 4 of chapter II-2 of the International Convention for the Safety of Life at Sea (SOLAS), 1974, as amended.

54 *MARPOL delivered sample* means the sample of fuel oil delivered in accordance with regulation 18.8.1 of this Annex.

55 *In-use sample* means a sample of fuel oil in use on a ship.

56 *On board sample* means a sample of fuel oil intended to be used or carried for use on board that ship."

Regulation 14

Sulphur oxides (SO_x) and particulate matter

- 3 New paragraphs 8 to 13 and associated headings are inserted after existing paragraph 7 as follows:

"In-use and onboard fuel oil sampling and testing

8 If the competent authority of a Party requires the in-use or onboard sample to be analysed, it shall be done in accordance with the verification procedure set forth in appendix VI to this Annex to determine whether the fuel oil being used or carried for use on board meets the requirements in paragraph 1 or paragraph 4 of this regulation. The in-use sample shall be drawn taking into account the guidelines

¹ Refer to ISO 8754:2003 Petroleum products – Determination of sulphur content – Energy-dispersive X-ray fluorescence spectrometry.

developed by the Organization.² The onboard sample shall be drawn taking into account the guidelines developed by the Organization.³

9 The sample shall be sealed by the representative of the competent authority with a unique means of identification installed in the presence of the ship's representative. The ship shall be given the option of retaining a duplicate sample.

In-use fuel oil sampling point

10 For each ship subject to regulations 5 and 6 of this Annex, sampling point(s) shall be fitted or designated for the purpose of taking representative samples of the fuel oil being used on board the ship taking into account the guidelines developed by the Organization.²

11 For a ship constructed before 1 April 2022, the sampling point(s) referred to in paragraph 10 shall be fitted or designated not later than the first renewal survey as identified in regulation 5.1.2 of this Annex on or after 1 April 2023.

12 The requirements of paragraphs 10 and 11 above are not applicable to a fuel oil service system for a low-flashpoint fuel for combustion purposes for propulsion or operation on board the ship.

13 The competent authority of a Party shall, as appropriate, utilize the sampling point(s) which is(are) fitted or designated for the purpose of taking representative sample(s) of the fuel oil being used on board in order to verify that the fuel oil complies with this regulation. Taking fuel oil samples by the competent authority of the Party shall be performed as expeditiously as possible without causing the ship to be unduly delayed."

Regulation 18

Fuel oil availability and quality

4 Paragraph 8.2 is replaced by the following:

"8.2 If a Party requires the representative sample to be analysed, it shall be done in accordance with the verification procedure set forth in appendix VI to this Annex to determine whether the fuel oil meets the requirements of this Annex."

Regulation 20

Attained Energy Efficiency Design Index (attained EEDI)

5 A new paragraph 3 is added after existing paragraph 2, as follows:

"3 For each ship subject to regulation 21 of this Annex, the Administration or any organization duly authorized by it shall report to the Organization the required and attained EEDI values and relevant information, taking into account the guidelines developed by the Organization,⁴ via electronic communication:

² Refer to the *2019 Guidelines for on board sampling for the verification of the sulphur content of the fuel oil used on board ships* (MEPC.1/Circ.864/Rev.1).

³ Refer to the *2020 Guidelines for on board sampling of fuel oil intended to be used or carried for use on board a ship* (MEPC.1/Circ.889).

⁴ Refer 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 by the Organization.

- .1 within 7 months of completing the survey required under regulation 5.4 of this Annex; or
- .2 within 7 months following 1 April 2022 for a ship delivered prior to 1 April 2022."

Regulation 21
Required EEDI

6 The existing table 1 (Reduction factors (in percentage) for the EEDI relative to the EEDI reference line) and the associated footnotes are replaced by the following:

"

| Ship Type | Size | Phase 0 1 Jan 2013 – 31 Dec 2014 | Phase 1 1 Jan 2015 – 31 Dec 2019 | Phase 2 1 Jan 2020 – 31 Mar 2022 | Phase 2 1 Jan 2020 – 31 Dec 2024 | Phase 3 1 Apr 2022 and onwards | Phase 3 1 Jan 2025 and onwards |
|---------------|---|--|--|--|--|---|---|
| Bulk carrier | 20,000 DWT and above | 0 | 10 | | 20 | | 30 |
| | 10,000 and above but less than 20,000 DWT | n/a | 0-10* | | 0-20* | | 0-30* |
| Gas carrier | 15,000 DWT and above | 0 | 10 | 20 | | 30 | |
| | 10,000 and above but less than 15,000 DWT | 0 | 10 | | 20 | | 30 |
| | 2,000 and above but less than 10,000 DWT | n/a | 0-10* | | 0-20* | | 0-30* |
| Tanker | 20,000 DWT and above | 0 | 10 | | 20 | | 30 |
| | 4,000 and above but less than 20,000 DWT | n/a | 0-10* | | 0-20* | | 0-30* |
| Containership | 200,000 DWT and above | 0 | 10 | 20 | | 50 | |
| | 120,000 and above but less than 200,000 DWT | 0 | 10 | 20 | | 45 | |
| | 80,000 and above but less than 120,000 DWT | 0 | 10 | 20 | | 40 | |
| | 40,000 and above but less than 80,000 DWT | 0 | 10 | 20 | | 35 | |
| | 15,000 and above but less than 40,000 DWT | 0 | 10 | 20 | | 30 | |

| Ship Type | Size | Phase 0 1 Jan 2013 – 31 Dec 2014 | Phase 1 1 Jan 2015 – 31 Dec 2019 | Phase 2 1 Jan 2020 – 31 Mar 2022 | Phase 2 1 Jan 2020 – 31 Dec 2024 | Phase 3 1 Apr 2022 and onwards | Phase 3 1 Jan 2025 and onwards |
|---|---|--|--|--|--|---|---|
| | 10,000 and above but less than 15,000 DWT | n/a | 0-10* | 0-20* | | 15-30* | |
| General Cargo ships | 15,000 DWT and above | 0 | 10 | 15 | | 30 | |
| | 3,000 and above but less than 15,000 DWT | n/a | 0-10* | 0-15* | | 0-30* | |
| Refrigerated cargo carrier | 5,000 DWT and above | 0 | 10 | | 15 | | 30 |
| | 3,000 and above but less than 5,000 DWT | n/a | 0-10* | | 0-15* | | 0-30* |
| Combination carrier | 20,000 DWT and above | 0 | 10 | | 20 | | 30 |
| | 4,000 and above but less than 20,000 DWT | n/a | 0-10* | | 0-20* | | 0-30* |
| LNG carrier*** | 10,000 DWT and above | n/a | 10** | 20 | | 30 | |
| Ro-ro cargo ship (vehicle carrier)*** | 10,000 DWT and above | n/a | 5** | | 15 | | 30 |
| Ro-ro cargo ship*** | 2,000 DWT and above | n/a | 5** | | 20 | | 30 |
| | 1,000 and above but less than 2,000 DWT | n/a | 0-5*, ** | | 0-20* | | 0-30* |
| Ro-ro passenger ship*** | 1,000 DWT and above | n/a | 5** | | 20 | | 30 |
| | 250 and above but less than 1,000 DWT | n/a | 0-5*, ** | | 0-20* | | 0-30* |
| Cruise passenger ship*** having non-conventional propulsion | 85,000 GT and above | n/a | 5** | 20 | | 30 | |
| | 25,000 and above but less than 85,000 GT | n/a | 0-5*, ** | 0-20* | | 0-30* | |

* Reduction factor to be linearly interpolated between the two values dependent upon ship size. The lower value of the reduction factor is to be applied to the smaller ship size.

** Phase 1 commences for those ships on 1 September 2015.

*** Reduction factor applies to those ships delivered on or after 1 September 2019, as defined in paragraph 43 of regulation 2.

Note: n/a means that no required EEDI applies."

7 In table 2 (Parameters for determination of reference values for the different ship types), the first row corresponding to Ship type defined in regulation 2.25 is replaced by the following:

| | | | |
|--------------------|--------|---|--------|
| "2.25 Bulk carrier | 961.79 | DWT of the ship where $DWT \leq 279,000$ 279,000 where $DWT > 279,000$ | 0.477" |
|--------------------|--------|---|--------|

Appendix I

Form of International Air Pollution Prevention (IAPP) Certificate (Regulation 8)

Supplement to International Air Pollution Prevention Certificate (IAPP Certificate) Record of construction and equipment

8 New paragraphs 2.3.4 and 2.3.5 are inserted after paragraph 2.3.3 as follows:

"2.3.4 The ship is fitted with designated sampling point(s) in accordance with regulation 14.10 or 14.11.....☐

2.3.5 In accordance with regulation 14.12, the requirement for fitting or designating sampling point(s) in accordance with regulation 14.10 or 14.11 is not applicable for a fuel oil service system for a low-flashpoint fuel for combustion purposes for propulsion or operation on board the ship
.....☐

Appendix VI

Fuel verification procedure for MARPOL Annex VI fuel oil samples (regulation 18.8.2)

9 The full text of appendix VI is replaced by the following:

"Verification procedures for a MARPOL Annex VI fuel oil sample (regulation 18.8.2 or regulation 14.8)

The following relevant verification procedure shall be used to determine whether the fuel oil delivered to, in use or carried for use on board a ship has met the applicable sulphur limit of regulation 14 of this Annex.

This appendix refers to the following representative MARPOL Annex VI fuel oil samples:

Part 1 – sample of fuel oil delivered⁵ in accordance with regulation 18.8.1, hereafter referred to as the "MARPOL delivered sample" as defined in regulation 2.54.

⁵ Samples taken in accordance with the 2009 Guidelines for the sampling of fuel oil for determination of compliance with the revised MARPOL Annex VI (resolution MEPC.182(59)).

Part 2 – sample of fuel oil in use,⁶ intended to be used or carried for use on board in accordance with regulation 14.8, hereafter referred to as the "in-use sample" as defined in regulation 2.55 and "onboard sample"⁷ as defined in regulation 2.56.

Part 1 – MARPOL delivered sample

1 General Requirements

1.1 The representative sample of the fuel oil, which is required by regulation 18.8.1 (the MARPOL delivered sample) shall be used to verify the sulphur content of the fuel oil delivered to a ship.

1.2 A Party, through its competent authority, shall manage the verification procedure.

1.3 A laboratory undertaking the sulphur testing procedure given in this appendix shall have valid accreditation⁸ in respect of the test method to be used.

2 Verification Procedure Part 1

2.1 The MARPOL delivered sample shall be conveyed by the competent authority to the laboratory.

2.2 The laboratory shall:

- .1 record the details of the seal number and the sample label on the test record;
- .2 record the condition of the seal of the sample as received on the test record; and
- .3 reject any sample where the seal has been broken prior to receipt and record that rejection on the test record.

2.3 If the seal of the sample as received has not been broken, the laboratory shall proceed with the verification procedure and shall:

- .1 unseal the sample;
- .2 ensure that the sample is thoroughly homogenized;
- .3 draw two subsamples from the sample; and
- .4 reseal the sample and record the new reseal details on the test record.

⁶ Samples taken in accordance with the 2019 *Guidelines for on board sampling for the verification of the sulphur content of the fuel oil used on board ships* (MEPC.1/Circ.864/Rev.1).

⁷ Refer to the 2020 *Guidelines for on board sampling of fuel oil intended to be used or carried for use on board a ship* (MEPC.1/Circ.889).

⁸ The laboratory is to be accredited to ISO/IEC 17025:2017 or an equivalent standard for the performance of the given sulphur content test ISO 8754:2003.

2.4 The two subsamples shall be tested in succession, in accordance with the specified test method referred to in regulation 2.52 of this Annex. For the purposes of this Part 1 verification procedure, the results of the test analysis shall be referred to as '1A' and '1B':

- .1 results '1A' and '1B' shall be recorded on the test record in accordance with the requirements of the test method; and
- .2 if the results of '1A' and '1B' are within the repeatability (r)⁹ of the test method, the results shall be considered valid; or
- .3 if the results '1A' and '1B' are not within the repeatability (r) of the test method, both results shall be rejected and two new subsamples shall be taken by the laboratory and tested. The sample bottle shall be resealed in accordance with paragraph 2.3.4 after the new subsamples have been taken.
- .4 in the case of two failures to achieve repeatability between '1A' and '1B', the cause of that failure shall be investigated by the laboratory and resolved before further testing of the sample is undertaken. On resolution of that repeatability issue, two new subsamples shall be taken in accordance with paragraph 2.3. The sample shall be resealed in accordance with paragraph 2.3.4 after the new subsamples have been taken.

2.5 If the test results of '1A' and '1B' are valid, an average of these two results shall be calculated. The average value shall be referred to as 'X' and shall be recorded on the test record:

- .1 if the result 'X' is equal to or less than the applicable limit required by regulation 14, the fuel oil shall be considered to have met the requirement; or
- .2 if the result 'X' is greater than the applicable limit required by regulation 14, the fuel oil shall be considered to have not met the requirement.

Table 1: Summary of Part 1 MARPOL delivered sample procedure

| On the basis of the test method referred to in regulation 2.52 of this Annex | | |
|--|---|-------------------------|
| Applicable limit % m/m: V | Result 2.5.1: $X \leq V$ | Result 2.5.2: $X > V$ |
| 0.10 | Met the requirement | Not met the requirement |
| 0.50 | | |
| | Result 'X' reported to 2 decimal places | |

2.6 The final results obtained from this verification procedure shall be evaluated by the competent authority.

⁹ Repeatability (r) calculation in accordance with ISO 4259:2017-2 and as defined in the test method used.

2.7 The laboratory shall provide a copy of the test record to the competent authority managing the verification procedure.

Part 2 – In-use and onboard samples

3 General Requirements

3.1 The in-use or onboard sample, as appropriate, shall be used to verify the sulphur content of the fuel oil as represented by that sample of fuel oil at the point of sampling.

3.2 A Party, through its competent authority, shall manage the verification procedure.

3.3 A laboratory undertaking the sulphur testing procedure given in this appendix shall have valid accreditation¹⁰ in respect of the test method to be used.

4 Verification Procedure Part 2

4.1 The in-use or onboard sample shall be conveyed by the competent authority to the laboratory.

4.2 The laboratory shall:

- .1 record the details of the seal number and the sample label on the test record;
- .2 record the condition of the seal of the sample as received on the test record; and
- .3 reject any sample where the seal has been broken prior to receipt and record that rejection on the test record.

4.3 If the seal of the sample as received has not been broken, the laboratory shall proceed with the verification procedure and shall:

- .1 unseal the sample;
- .2 ensure that the sample is thoroughly homogenized;
- .3 draw two subsamples from the sample; and
- .4 reseal the sample and record the new reseal details on the test record.

4.4 The two subsamples shall be tested in succession, in accordance with the specified test method referred to in regulation 2.52 of this Annex. For the purposes of this Part 2 verification procedure, the results obtained shall be referred to as '2A' and '2B':

¹⁰ The laboratory is to be accredited to ISO/IEC 17025:2017 or an equivalent standard for the performance of the given sulphur content test ISO 8754:2003.

- .1 results '2A' and '2B' shall be recorded on the test record in accordance with requirements of the test method; and
 - .2 if the results of '2A' and '2B' are within the repeatability (r)¹¹ of the test method, the results shall be considered valid; or
 - .3 if the results of '2A' and '2B' are not within the repeatability (r) of the test method, both results shall be rejected and two new subsamples shall be taken by the laboratory and tested. The sample bottle shall be resealed in accordance with paragraph 4.3.4 after the new subsamples have been taken; and
 - .4 in the case of two failures to achieve repeatability between '2A' and '2B', the cause of that failure shall be investigated by the laboratory and resolved before further testing of the sample is undertaken. On resolution of that repeatability issue, two new subsamples shall be taken in accordance with paragraph 4.3. The sample shall be resealed in accordance with paragraph 4.3.4 after the new subsamples have been taken.
- 4.5 If the test results of '2A' and '2B' are valid, an average of these two results shall be calculated. That average value shall be referred to as 'Z' and shall be recorded on the test record:
- .1 if 'Z' is equal to or less than the applicable limit required by regulation 14, the sulphur content of the fuel oil as represented by the tested sample shall be considered to have met the requirement;
 - .2 if 'Z' is greater than the applicable limit required by regulation 14 but less than or equal to that applicable limit + 0.59R (where R is the reproducibility of the test method),¹² the sulphur content of the fuel oil as represented by the tested sample shall be considered to have met the requirement; or
 - .3 if 'Z' is greater than the applicable limit required by regulation 14 + 0.59R, the sulphur content of the fuel oil as represented by the tested sample shall be considered to have not met the requirement.

Table 2: Summary of in-use or onboard sample procedure¹³

| On the basis of the test method referred to in regulation 2.52 of this Annex | | | | |
|--|----------------------------|---|-------------------------------|----------------------------|
| Applicable limit %m/m: V | Test margin value: W | Result 4.5.1: Z ≤ V | Result 4.5.2: V < Z ≤ W | Result 4.5.3: Z > W |
| 0.10 | 0.11 | Met the requirement | Met the requirement | Not met the requirement |
| 0.50 | 0.53 | | | |
| | | Result 'Z' reported to 2 decimal places | | |

¹¹ Repeatability (r) calculation in accordance with ISO 4259:2017-2 and as defined in the test method used.

¹² Reproducibility (R) calculation in accordance with ISO 4259:2017-2 and as defined in the test method used.

¹³ Results of testing undertaken by the Company or other entities are outside the MARPOL process and hence should be considered within the approach given by ISO 4259:2017-2 regarding recipient drawn samples.

4.6 The final results obtained from this verification procedure shall be evaluated by the competent authority.

4.7 The laboratory shall provide a copy of the test record to the competent authority managing the verification procedure."

ANNEX 2**RESOLUTION MEPC.325(75)
(adopted on 20 November 2020)****AMENDMENTS TO THE INTERNATIONAL CONVENTION FOR THE CONTROL AND
MANAGEMENT OF SHIPS' BALLAST WATER AND SEDIMENTS, 2004****Amendments to regulation E-1 and appendix I****(Commissioning testing of ballast water management systems and
form of the International Ballast Water Management Certificate)**

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 conferred upon it by international conventions for the prevention and control of marine pollution from ships,

RECALLING ALSO article 19 of the International Convention for the Control and Management of Ships' Ballast Water and Sediments, 2004 (the BWM Convention), which specifies the amendment procedure and confers upon the Marine Environment Protection Committee of the Organization the function of considering amendments thereto for adoption by the Parties,

HAVING CONSIDERED, at its seventy-fifth session, proposed amendments to the BWM Convention regarding commissioning testing of ballast water management systems and the form of the International Ballast Water Management Certificate,

1 ADOPTS, in accordance with article 19(2)(c) of the BWM Convention, amendments to regulation E-1 and appendix I;

2 DETERMINES, in accordance with article 19(2)(e)(ii) of the BWM Convention, that the amendments shall be deemed to have been accepted on 1 December 2021 unless, prior to that date, more than one third of the Parties have notified the Secretary-General that they object to the amendments;

3 INVITES the Parties to note that, in accordance with article 19(2)(f)(ii) of the BWM Convention, the said amendments shall enter into force on 1 June 2022 upon their acceptance in accordance with paragraph 2 above;

4 INVITES ALSO the Parties to consider the application of the amendments to regulation E-1 with regard to commissioning testing as soon as possible to ships entitled to fly their flag, taking into account the *Guidance for the commissioning testing of ballast water management systems* (BWM.2/Circ.70/Rev.1), as may be amended;

5 RESOLVES that the analysis undertaken in the context of commissioning testing should be indicative;

6 REQUESTS the Secretary-General, for the purposes of article 19(2)(d) of the BWM Convention, to transmit certified copies of the present resolution and the text of the amendments contained in the annex to all Parties to the BWM Convention;

7 REQUESTS ALSO the Secretary-General to transmit copies of the present resolution and its annex to Members of the Organization which are not Parties to the BWM Convention;

8 REQUESTS FURTHER the Secretary-General to prepare a consolidated certified text of the BWM Convention.

ANNEX

**AMENDMENTS TO THE INTERNATIONAL CONVENTION FOR THE CONTROL AND
MANAGEMENT OF SHIPS' BALLAST WATER AND SEDIMENTS**

Regulation E-1

Surveys

1 Paragraph 1.1 is replaced by the following:

"1 An initial survey before the ship is put in service or before the Certificate required under regulation E-2 or E-3 is issued for the first time. This survey shall verify that the ballast water management plan required by regulation B-1 and any associated structure, equipment, systems, fitting, arrangements and material or processes comply fully with the requirements of this Convention. This survey shall confirm that a commissioning test has been conducted to validate the installation of any ballast water management system by demonstrating that its mechanical, physical, chemical and biological processes are working properly, taking into account the guidelines developed by the Organization.*"

2 Paragraph 1.5 is replaced by the following:

".5 An additional survey, either general or partial, according to the circumstances, shall be made after a change, replacement, or significant repair of the structure, equipment, systems, fittings, arrangements and material necessary to achieve full compliance with this Convention. The survey shall be such as to ensure that any such change, replacement or significant repair has been effectively made, so that the ship complies with the requirements of this Convention. When an additional survey is undertaken for the installation of any ballast water management system, this survey shall confirm that a commissioning test has been conducted to validate the installation of the system by demonstrating that its mechanical, physical, chemical and biological processes are working properly, taking into account the guidelines developed by the Organization.*"

* Refer to the *2020 Guidance for the commissioning testing of ballast water management systems* (BWM.2/Circ.70/Rev.1), as may be amended.

Appendix I

Form of International Ballast Water Management Certificate

3 The footnote of "IMO Number" under the item "Particulars of ship" is replaced by the following:

"IMO Ship Identification Number Scheme adopted by the Organization by resolution A.1117(30), as may be amended."

4 The text under the title "Details of ballast water management method(s) used" is replaced by the following:

"Method of ballast water management used
Date installed (if applicable) (dd/mm/yyyy)
Name of manufacturer (if applicable)"

The principal ballast water management method(s) employed on this ship is/are:

- ☐ in accordance with regulation D-1
- ☐ in accordance with regulation D-2
(describe)
- ☐ the ship is subject to regulation D-4
- ☐ other approach in accordance with regulation"

ANNEX 3

**RESOLUTION MEPC.326(75)
(adopted on 20 November 2020)**

**2020 GUIDELINES FOR MONITORING THE WORLDWIDE AVERAGE SULPHUR
CONTENT OF FUEL OILS SUPPLIED FOR USE ON BOARD SHIPS**

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 (hereafter "the Committee") conferred upon it by international conventions for the prevention and control of marine pollution from ships,

RECALLING ALSO that at its sixty-first session, the Committee adopted the *2010 Guidelines for monitoring the worldwide average sulphur content of fuel oils supplied for use on board ships* by resolution MEPC.192(61), which were subsequently amended by resolution MEPC.273(69),

RECALLING FURTHER that, at its seventieth session, the Committee adopted resolution MEPC.280(70), *Effective date of implementation of the fuel oil standard in regulation 14.1.3 of MARPOL Annex VI*, confirming "1 January 2020" as the effective date of implementation for ships to comply with global 0.50% m/m sulphur content of fuel oil requirement,

RECOGNIZING the need to revise the *2010 Guidelines for monitoring the worldwide average sulphur content of fuel oils supplied for use on board ships* resulting from the entry into force of the 0.50% m/m sulphur content limit on 1 January 2020 and the potential types of fuel oils which would be used to comply with this limit,

NOTING that regulation 14.2 of MARPOL Annex VI requires that the worldwide average sulphur content of residual fuel oil supplied for use on board ships shall be monitored taking into account guidelines developed by the Organization,

HAVING CONSIDERED, at its seventy-fifth session, the recommendation made by the Secretariat,

- 1 ADOPTS the *2020 Guidelines for monitoring the worldwide average sulphur content of fuel oils supplied for use on board ships*, as set out in the annex to the present resolution;
- 2 URGES Member Governments and interested organizations to make available the resources and expertise necessary for the implementation of the Guidelines;
- 3 INSTRUCTS the Secretariat to use the method set out in these Guidelines when monitoring the annual worldwide average sulphur content of fuel oils supplied for use on board ships; and
- 4 REVOKES the Guidelines adopted by resolution MEPC.192(61) as amended, as from this date.

ANNEX

2020 GUIDELINES FOR MONITORING THE WORLDWIDE AVERAGE SULPHUR CONTENT OF FUEL OILS SUPPLIED FOR USE ON BOARD SHIPS

Preface

1 The primary objective of the Guidelines is to establish an agreed method to monitor the average sulphur contents of fuel oils supplied for use on board ships taking into account the sulphur limit as required by regulation 14 of MARPOL Annex VI.

Introduction

2 The basis for these Guidelines is provided in regulation 14.2 of MARPOL Annex VI. While regulation 14.2 of MARPOL Annex VI only refers to residual fuel, it was agreed to also monitor the average sulphur content of distillate fuel.

3 Following the entry into force of the 0.50% m/m sulphur content limit on 1 January 2020, MEPC 74 recognized that some of the compliant fuel oils may fall within the residual fuel category whereas other compliant fuel oils may fall within the distillate fuel category, thus agreed that the worldwide average sulphur content should be monitored as a consequence of the sulphur limits required by regulation 14 of MARPOL Annex VI.

4 In view of the above, the three following categories should be used for monitoring the worldwide average sulphur contents of fuel oil:

- .1 fuel oil not exceeding 0.10%;
- .2 fuel oil not exceeding 0.50%, but above 0.10%; and
- .3 fuel oil exceeding 0.50%.

Definitions

5 For the purpose of these Guidelines the following definitions should apply:

.1 *Residual fuel:*

Fuel oil for combustion purposes delivered to and used on board ships with a kinematic viscosity at 40°C greater than 11.00 centistokes¹ (mm²/s).

.2 *Distillate fuel:*

Fuel oil for combustion purposes delivered to and used on board ships with a kinematic viscosity at 40°C lower than or equal to 11.00 centistokes¹ (mm²/s).

.3 *Provider of sampling and testing services:*

A company that, on a commercial basis, provides testing and sampling services of bunker fuels delivered to ships for the purpose of assessing quality parameters of these fuels, including the sulphur content.

.4 *Reference value A_{ws_ECA} :*

¹ Reference is made to ISO 8217:2012.

The value of the worldwide average sulphur content for the total fuel oil (distillate and residual) with a sulphur content not exceeding 0.10% supplied for use on board ships, based on the first 3 years of data collected and as determined on the basis of paragraphs 6 to 12 of these Guidelines.

.5 *Reference value $A_{ws_Non-ECA}$:*

The value of the worldwide average sulphur content for the total fuel oil (distillate and residual) with a sulphur content not exceeding 0.50%, but above 0.10%, supplied for use on board ships, based on the first 3 years of data collected and as determined on the basis of paragraphs 6 to 12 of these Guidelines.

.6 *Reference value $A_{ws_regulation4}$:*

The value of the worldwide average sulphur content for the total fuel oil (distillate and residual) with a sulphur content exceeding 0.50% supplied for use on board ships, based on the first 3 years of data collected and as determined on the basis of paragraphs 6 to 12 of these Guidelines.

Monitoring and calculation of yearly and 3-year rolling averages

Monitoring

6 Monitoring should be based on calculation of average sulphur content of combined residual and distillate fuels on the basis of sampling and testing by independent testing services. Restarting for year 2020 the average sulphur content of the three categories given in paragraph 4 should be calculated. After 3 years the reference values for monitoring will be set as described in paragraph 12.

Calculation of yearly averages

7 The basis of monitoring is the calculation, on an annual basis, of the average sulphur content of residual fuel and distillate fuel in each of the three categories in paragraph 4.

8 The calculation of the average sulphur content is executed as follows:

For a certain calendar year, the sulphur contents of the samples analysed ² (one sample for each delivery of which the sulphur content is determined by fuel oil analysis) are recorded. The sulphur contents of the fuel oil samples analysed are multiplied by their corresponding mass, then summed, and then divided by the total mass of fuel oil analysed within each category as given in paragraph 4.

9 The mathematical formula for the method of calculation described is given in the appendix to these Guidelines.

10 As a basis for well-informed decisions, a graphical representation of the distribution of the global sulphur content plotted against the quantity of fuel oils associated with each incremental sulphur content range should be made available each year:

- .1 residual and distillate fuels for sulphur content below or equal to 1.00%: in terms of the % sulphur in increments of 0.10%; and

² Reference is made to ISO 8754:2003.

- .2 residual and distillate fuels for sulphur content above 1.00%: in terms of the % sulphur in increments of 0.50%.

Three-year rolling average

11 The 3-year rolling averages should be calculated as follows:

$$A_{cr} = (A_{c1} + A_{c2} + A_{c3})/3$$

in which:

A_{cr} = rolling average S-content of all deliveries tested over a 3-year period

A_{c1}, A_{c2}, A_{c3} = individual average S-contents of all deliveries tested for each year under consideration

A_{cr} is to be recalculated each year by adding the latest figure for A_c and deleting the oldest.

For the calculation of yearly average, all fuel oils less than 0.05% of sulphur should be calculated as 0.03%.

Setting of the reference values

12 The reference values of the worldwide average sulphur content for each category of fuel oil given in paragraph 4 supplied for use on board ships should be A_{wx} , where $x = ws_ECA, ws_Non-ECA, ws_regulation4$ and $A_{wx} = A_{cr}$ as calculated in January of the year following the first 3 years in which data were collected on the basis of these Guidelines. A_w should be expressed as a percentage.

Providers of sampling and testing services

13 There are presently three providers of sampling and testing services under these Guidelines.

14 Any additional providers of sampling and testing services will be approved by MEPC in accordance with the following criteria:

- .1 be subject to the approval of MEPC, which should apply these criteria;
- .2 be provided with a technical and managerial staff of qualified professionals providing adequate geographical coverage and local representation to ensure quality services in a timely manner;
- .3 provide services governed by a documented Code of Ethics;
- .4 be independent as regards commercial interest in the outcome of monitoring;
- .5 implement and maintain an internationally recognized quality system, certified by an independent auditing body, which ensures reproducibility and repeatability of services which are internally audited, monitored and carried out under controlled conditions; and

- .6 take a significant number of samples on an annual basis for the purpose of globally monitoring average sulphur content of residual and distillate fuels.

Standardized method of calculation

15 Each of the providers of sampling and testing services should, before 31 January of the following year, provide the necessary information for the calculation of the average sulphur content of the residual and distillate fuels to the Secretariat of IMO or another agreed third party on the basis of a mutually agreed format, approved by MEPC. This party will process the information and will provide the outcome in the agreed format to MEPC. From the viewpoint of competitive positions, the information involved should be considered sensitive.

APPENDIX

CALCULATION OF AVERAGE SULPHUR CONTENT BASED ON QUANTITY

Note: wherever "all deliveries" are mentioned, this is meant to refer to all deliveries sampled and tested for sulphur and being taken into account for the purpose of monitoring.

Calculation weighted for quantity

$$A_{cj} = \frac{\sum_{i=1}^{i=N_j} a_i \cdot m_i}{\sum_{i=1}^{i=N_j} m_i}$$

in which:

A_{cj} = the average sulphur content of all deliveries sampled worldwide in year j

a_i = the sulphur content of individual sample for delivery i

N_j = total number of samples taken in year j

m_i = the mass of fuel oils with a sulphur content of a_i .

ANNEX 4**RESOLUTION MEPC.327(75)
(adopted on 20 November 2020)****ENCOURAGEMENT OF MEMBER STATES TO DEVELOP AND SUBMIT VOLUNTARY
NATIONAL ACTION PLANS TO ADDRESS GHG EMISSIONS FROM SHIPS**

THE MARINE ENVIRONMENT PROTECTION COMMITTEE,

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

HAVING ADOPTED resolution MEPC.304(72) on *Initial IMO Strategy on reduction of GHG emissions from ships* (the Initial Strategy),

NOTING that the Initial Strategy includes, inter alia, a candidate short-term measure to encourage the development and update of national action plans to develop policies and strategies to address GHG emissions from international shipping in accordance with guidelines to be developed by the Organization, taking into account the need to avoid regional or unilateral measures,

NOTING ALSO the role of Member States in extending the emission reduction efforts to all shipping-related sectors which are not necessarily covered by the Organization's conventions,

NOTING FURTHER resolution MEPC.323(74) on *Invitation to Member States to encourage voluntary cooperation between the port and shipping sectors to contribute to reducing GHG emissions from ships*,

RECOGNIZING that many Member States are already taking actions at national level to facilitate the reduction of GHG emissions from ships,

COMMENDS those Member States that have already prepared National Actions Plans and encourages them to share their experiences with the Organization,

RECOGNIZING that IMO has, in 2015, launched the Global Maritime Energy Efficiency Partnership (GloMEEP) Project, with 10 developing countries as Lead Pilot Countries (LPCs). Under the project, by offering several generic guide documents, the Organization has successfully assisted LPCs to develop national strategies to address emissions from ships,

RECOGNIZING ALSO the value of mobilizing national resources, promoting experience and information sharing and cooperation for all national stakeholders,

HAVING CONSIDERED the recommendation of the sixth session of the Intersessional Meeting of the Working Group on Reduction of GHG emissions from ships (ISWG-GHG 6),

1 INVITES Member States to voluntarily submit their National Action Plans to the Organization, outlining respective policies and actions, as soon as possible, and provide updates, as relevant, thereafter;

2 SUGGESTS the National Action Plans could include but are not limited to: (a) improving domestic institutional and legislative arrangements for the effective implementation of existing IMO instruments, (b) developing activities to further enhance the energy efficiency of ships, (c) initiating research and advancing the uptake of alternative low-carbon and zero-carbon fuels, (d) accelerating port emission reduction activities, consistent with resolution MEPC.323(74), (e) fostering capacity-building, awareness-raising and regional cooperation and (f) facilitating the development of infrastructure for green shipping;

3 INVITES ALSO Member States to elaborate on those arrangements (legal, policy, institutional, etc.) that they put in place or plan to do so to support emission reduction from ships, in accordance with their national conditions, circumstances and priorities;

4 ENCOURAGES those Member States to initiate early actions to facilitate the reduction of GHG emissions from ships without awaiting the entry into force of measures in the IMO context;

5 REQUESTS the Secretariat to continue to provide guidance and any further action which may be taken (e.g. through the GloMEEP, GMN and Green Voyage 2050 projects) to assist Member States including developing countries, in particular SIDS and LDCs, for the development of National Action Plans;

6 REQUESTS ALSO the Secretariat to facilitate the sharing of relevant information provided in the submitted National Action Plans;

7 REQUESTS FURTHER the Member States to bring this resolution to the attention of all stakeholders on a national scale, including Administrations, ports, ship designers, engine manufacturers, fuel suppliers, seafarers and other interested groups.

ANNEX 5

DRAFT AMENDMENTS TO MARPOL ANNEX VI

(Mandatory goal-based technical and operational measures to reduce carbon intensity of international shipping)

CHAPTER 1 – GENERAL

Regulation 2

Definitions

- 1 Sub-paragraph 5 of paragraph 24 is replaced by the following:
 - "5 which substantially alters the energy efficiency of the ship and includes any modifications that could cause the ship to exceed the applicable required EEDI as set out in regulation 21 or applicable required EEXI as set out in regulation 21A of this Annex."
- 2 New paragraphs 58 to 61 are added after paragraph 57, as follows:
 - "58 *Attained EEXI* is the EEXI value achieved by an individual ship in accordance with regulation 20A of this Annex.
 - 59 *Attained annual operational CII* is the operational carbon intensity indicator value achieved by an individual ship in accordance with regulations 22 and 22B of this Annex.
 - 60 *Required EEXI* is the maximum value of attained EEXI that is allowed by regulation 21A of this Annex for the specific ship type and size.
 - 61 *Required annual operational CII* is the target value of attained annual operational CII in accordance with regulations 22 and 22B of this Annex for the specific ship type and size."

CHAPTER 2 – SURVEY, CERTIFICATION AND MEANS OF CONTROL

Regulation 5

Surveys

- 3 The chapeau of paragraph 4 is replaced by the following:
 - "4 Ships to which chapter 4 of this Annex applies shall also be subject to the surveys specified below, taking into account guidelines adopted by the Organization:¹"

¹ Refer to the 2014 *Guidelines on survey and certification of the Energy Efficiency Design Index* (resolution MEPC.254(67), as amended by resolutions MEPC.261(68) and MEPC.309(73); consolidated text: MEPC.1/Circ.855/Rev.2), as may be further amended.

- 4 New sub-paragraphs 6, 7 and 8 are inserted at the end of paragraph 4, as follows:
- .6 The Administration shall ensure that for each ship to which regulation 22B applies, the SEEMP complies with regulation 22.3 of this Annex. This shall be done prior to 1 January 2023. Confirmation of compliance shall be provided to and retained on board the ship.
 - .7 The verification that the ship's attained EEXI is in accordance with the requirements in regulations 20A and 21A of this Annex 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].
 - .8 Notwithstanding paragraph 4.7 of this regulation, a general or partial survey, according to the circumstances, after a major conversion of a ship to which regulation 20A applies. The survey shall ensure that the attained EEXI is recalculated as necessary and meets the requirement of regulation 21A of this Annex."

Regulation 6

Issue or endorsement of Certificates and Statements of Compliance related to fuel oil consumption reporting

- 5 The title of regulation 6 is replaced by the following:
- "Issue or endorsement of Certificates and Statements of Compliance related to fuel oil consumption reporting and operational carbon intensity rating".*
- 6 Paragraphs 6 and 7 and their associated title are replaced by the following:
- "Statement of Compliance related to fuel oil consumption reporting and operational carbon intensity rating*
- 6 Upon receipt of reported data pursuant to regulation 22A.3 of this Annex and attained annual operational CII pursuant to regulation 22B.2 of this Annex, the Administration or any organization duly authorized by it shall:
- .1 determine whether the data has been reported in accordance with regulation 22A of this Annex;
 - .2 verify the attained annual operational CII reported is based on the data submitted in accordance with regulation 22A of this Annex;
 - .3 based on the verified attained annual operational CII, determine the operational carbon intensity rating of the ship in accordance with regulation 22B.6; and
 - .4 issue a Statement of Compliance related to fuel oil consumption reporting and annual operational carbon intensity rating to the ship no later than 5 months from the beginning of the calendar year. In every case, the Administration assumes full responsibility for this Statement of Compliance.

7 Upon receipt of reported data pursuant to regulations 22A.4, 22A.5 or 22A.6 of this Annex, the Administration or any organization duly authorized by it² shall promptly determine whether the data has been reported in accordance with regulation 22A and, if so, issue a Statement of Compliance related to fuel oil consumption reporting and annual operational carbon intensity rating CII to the ship. In every case, the Administration assumes full responsibility for this Statement of Compliance."

7 New paragraph 8 is inserted after paragraph 7, as follows:

"8 Notwithstanding paragraphs 6 and 7 of this regulation, a ship rated as D for 3 consecutive years or rated as E in accordance with regulation 22B of this Annex shall not be issued a Statement of Compliance unless a plan of corrective actions is duly developed and reflected in the SEEMP, and verified by the Administration or any organization duly authorized by it in accordance with regulation 22B.7 of this Annex. The plan of corrective actions shall be submitted to the Administration, or any organization duly authorized by it for verification within 1 month after reporting of the attained annual operational CII."

Regulation 8

Form of Certificates and Statements of Compliance related to fuel oil consumption reporting

8 The title of regulation 8 is replaced by the following:

"Form of Certificates and Statements of Compliance related to fuel oil consumption reporting and operational carbon intensity rating".

9 The title of paragraph 3 is replaced by the following:

"Statement of Compliance related to fuel oil Consumption Reporting and operational carbon intensity rating".

Regulation 9

Duration and Validity of Certificates and Statements of Compliance related to fuel oil consumption reporting

10 The title of regulation 9 is replaced by the following:

"Duration and Validity of Certificates and Statements of Compliance-related to fuel oil consumption reporting and operational carbon intensity rating".

11 A new sub-paragraph 3 is inserted at the end of paragraph 11, as follows:

".3 if the ship's equipment, systems, fittings, arrangements, or material covered by the survey was changed without the express approval of the Administration in accordance with regulation 5.5 of this Annex, unless regulation 3 of this Annex applies."

² Refer to the Code for recognized organizations (RO Code) (resolution MEPC.237(65), as may be amended).

- 12 Paragraph 12 and its associated title are replaced by the following:

"Statement of Compliance related to fuel oil consumption reporting and operational carbon intensity rating

12 The Statement of Compliance pursuant to regulation 6.6 of this Annex shall be valid for the calendar year in which it is issued and for the first 5 months of the following calendar year. The Statement of Compliance pursuant to regulation 6.7 of this Annex shall be valid for the calendar year in which it is issued, for the following calendar year, and for the first 5 months of the subsequent calendar year. All Statements of Compliance shall be kept on board for at least 5 years."

Regulation 10

Port State control on operational requirements

- 13 Paragraph 5 is replaced by the following:

"5 In relation to chapter 4 of this Annex, any port State inspection may verify, when appropriate, that there is a valid Statement of Compliance related to fuel oil consumption reporting and operational carbon intensity rating, an International Energy Efficiency Certificate and Ship Energy Efficiency Management Plan on board, in accordance with article 5 of the Convention."

- 14 New paragraph 6 is added after paragraph 5, as follows:

"6 Notwithstanding the requirements in paragraph 5 of this regulation, any port State inspection may inspect whether the Ship Energy Efficiency Management Plan is duly implemented by the ship in accordance with regulation 22B of this Annex."

CHAPTER 4 – REGULATIONS ON ENERGY EFFICIENCY FOR SHIPS

- 15 The title of chapter 4 is replaced by the following:

"CHAPTER 4 – REGULATIONS ON THE CARBON INTENSITY OF INTERNATIONAL SHIPPING"

Regulation 19

Application

- 16 Paragraph 3 is replaced by the following:

"3 Regulations 20, 20A, 21 and 21A of this Annex shall not apply to ships which have non-conventional propulsion, except that regulations 20 and 21 shall apply to cruise passenger ships having non-conventional propulsion and LNG carriers having conventional or non-conventional propulsion, delivered on or after 1 September 2019, as defined in paragraph 43 of regulation 2 and regulations 20A and 21A shall apply to cruise passenger ships having non-conventional propulsion and LNG carriers having conventional or non-conventional propulsion. Regulations 20, 20A, 21, 21A and 22B shall not apply to category A ships as defined in the Polar Code."

17 New regulations 19A and 19B are inserted after existing regulation 19 and before existing regulation 20, as follows:

"Regulation 19A

Goal

The goal of this chapter is to reduce the carbon intensity of international shipping, working towards the levels of ambition set out in the *Initial IMO Strategy on reduction of GHG emissions from ships*.³

Regulation 19B

Functional requirements

In order to achieve the goal set out in regulation 19A of this Annex, a ship to which this chapter applies shall comply, as applicable, with the following functional requirements to reduce its carbon intensity:

- .1 the technical carbon intensity requirements in accordance with regulations 20, 20A, 21 and 21A of this Annex; and
- .2 the operational carbon intensity requirements in accordance with regulations 22, 22A and 22B of this Annex."

18 New regulation 20A is inserted after existing regulation 20 and before existing regulation 21, as follows:

"Regulation 20A

Attained Energy Efficiency Existing Ship Index (EEXI)

1 The attained EEXI shall be calculated for:

- .1 each ship; and
- .2 each ship which has undergone a major conversion,

which falls into one or more of the categories in regulations 2.25 to 2.31, 2.33 to 2.35, 2.38 and 2.39 of this Annex. The attained EEXI shall be specific to each ship and shall indicate the estimated performance of the ship in terms of energy efficiency, and be accompanied by the EEXI technical file that contains the information necessary for the calculation of the attained EEXI and that shows the process of the calculation. The attained EEXI shall be verified, based on the EEXI technical file, either by the Administration or by any organization duly authorized by it.⁴

2 The attained EEXI shall be calculated taking into account guidelines⁵ developed by the Organization.

3 Notwithstanding regulation 20A.1, for each ship to which regulation 20 of this Annex applies, the attained EEDI verified by the Administration or by any organization

³ Resolution MEPC.304(72).

⁴ Refer to the Code for recognized organizations (RO Code) (resolution MEPC.237(65), as may be amended).

⁵ Guidelines on the method of calculation of the Energy Efficiency Existing Ship Index to be developed by the Organization.

duly authorized by it in accordance with regulation 20.1 of this Annex may be taken as the attained EEXI if the value of the attained EEDI is equal to or less than that of the required EEXI required by regulation 21A of this Annex. In this case, the attained EEXI shall be verified based on the EEDI Technical File."

19 New regulation 21A is inserted after existing regulation 21 and before existing regulation 22, as follows:

"Regulation 21A

Required EEXI

1 For:

.1 each ship; and

.2 each ship which has undergone a major conversion,

which falls into one of the categories in regulations 2.25 to 2.31, 2.33 to 2.35, 2.38 and 2.39 and to which this chapter is applicable, the attained EEXI shall be as follows:

$$\text{Attained EEXI} \leq \text{Required EEXI} = (1 - Y/100) \times \text{EEDI Reference line value}$$

where Y is the reduction factor specified in Table 3 for the required EEXI compared to the EEDI reference line.

Table 3. Reduction factors (in percentage) for the EEXI relative to the EEDI reference line

| Ship type | Size | Reduction factor |
|---------------|---|------------------|
| Bulk carrier | 200,000 DWT and above | 15 |
| | 20,000 and above but less than 200,000 DWT | 20 |
| | 10,000 and above but less than 20,000 DWT | 0-20* |
| Gas carrier | 15,000 DWT and above | 30 |
| | 10,000 and above but less than 15,000 DWT | 20 |
| | 2,000 and above but less than 10,000 DWT | 0-20* |
| Tanker | 200,000 DWT and above | 15 |
| | 20,000 and above but less than 200,000 DWT | 20 |
| | 4,000 and above but less than 20,000 DWT | 0-20* |
| Containership | 200,000 DWT and above | 50 |
| | 120,000 and above but less than 200,000 DWT | 45 |
| | 80,000 and above but less than 120,000 DWT | 35 |

| Ship type | Size | Reduction factor |
|--|---|------------------|
| | 40,000 and above but less than 80,000 DWT | 30 |
| | 15,000 and above but less than 40,000 DWT | 20 |
| | 10,000 and above but less than 15,000 DWT | 0-20* |
| General cargo ship | 15,000 DWT and above | 30 |
| | 3,000 and above but less than 15,000 DWT | 0-30* |
| Refrigerated cargo carrier | 5,000 DWT and above | 15 |
| | 3,000 and above but less than 5,000 DWT | 0-15* |
| Combination carrier | 20,000 DWT and above | 20 |
| | 4,000 and above but less than 20,000 DWT | 0-20* |
| LNG carrier | 10,000 DWT and above | 30 |
| Ro-ro cargo ship (vehicle carrier) | 10,000 DWT and above | 15 |
| Ro-ro cargo ship | 2,000 DWT and above | 5 |
| | 1,000 and above but less than 2,000 DWT | 0-5* |
| Ro-ro passenger ship | 1,000 DWT and above | 5 |
| | 250 and above but less than 1,000 DWT | 0-5* |
| Cruise passenger ship having non-conventional propulsion | 85,000 GT and above | 30 |
| | 25,000 and above but less than 85,000 GT | 0-30* |

* Reduction factor to be linearly interpolated between the two values dependent upon ship size. The lower value of the reduction factor is to be applied to the smaller ship size.

2 The EEDI reference line values shall be calculated in accordance with regulations 21.3 and 21.4 of this Annex. For ro-ro cargo ships and ro-ro passenger ships, the reference line value to be used from phase 2 and thereafter under regulation 21.3 of this Annex shall be referred.

3 A review shall be completed by 1 January 2026 by the Organization to assess the effectiveness of this regulation taking into account any Guidelines developed by the Organization. If, based on the review, the Parties decide to adopt amendments to this regulation, such amendments shall be adopted and enter into force in accordance with the procedures contained in article 16 of the present Convention."

20 Regulation 22 is replaced by the following:

"Regulation 22

Ship Energy Efficiency Management Plan (SEEMP)

1 Each ship shall keep on board a ship specific Ship Energy Efficiency Management Plan (SEEMP). This may form part of the ship's Safety Management System (SMS). The SEEMP shall be developed and reviewed, taking into account Guidelines adopted by the Organization.

2 On or before 31 December 2018, in the case of a ship of 5,000 gross tonnage and above, SEEMP shall include a description of the methodology that will be used to collect the data required by regulation 22A.1 of this Annex and the processes that will be used to report the data to the ship's Administration.

3 On or before 1 January 2023, in case of a ship of 5,000 gross tonnage and above, the SEEMP shall include:

- .1 a description of the methodology that will be used to calculate the ship's attained annual operational CII required by regulation 22B of this Annex and the processes that will be used to report this value to the ship's Administration;
- .2 required annual operational CII for the next 3 years, as specified in regulation 22B of this Annex;
- .3 an implementation plan documenting how the required annual operational CII will be achieved during the next 3 years; and
- .4 a procedure for self-evaluation and improvement.

4 For ships rated as D for 3 consecutive years or rated as E in accordance with regulation 22B of this Annex, the SEEMP shall be reviewed to include a plan of corrective actions to achieve the required annual operational CII in accordance with regulation 22B.8 of this Annex.

5 The SEEMP shall be subject to verification and company audits taking into account Guidelines adopted by the Organization."

21 New regulation 22B is inserted after existing regulation 22A and before existing regulation 23, as follows:

"Regulation 22B

Operational carbon intensity

Attained annual operational carbon intensity indicator (CII)

1 After the end of each calendar year, each ship of 5,000 gross tonnage and above, which falls into one or more of the categories in regulations 2.25 to 2.31, 2.33 to 2.35, 2.38 and 2.39 of this Annex, shall calculate the attained annual operational CII over a 12-month period from 1 January to 31 December in that calendar year, using the data collected in accordance with regulation 22A of this Annex, taking into account guidelines developed by the Organization.⁶

2 Within 3 months after the end of each calendar year, the ship shall report to its

⁶ Refer to the 2016 Guidelines for the development of a Ship Energy Efficiency Management Plan (SEEMP) (resolution MEPC.282(70), as may be amended).

Administration or any organization duly authorized by it, the attained annual operational CII, via electronic communication and using a standardized format to be developed by the Organization.

3 In the event of any transfer of a ship addressed in regulations 22A.4, 22A.5 or 22A.6 completed after 1 January 2023, the annual operational carbon intensity rating of the ship for the reporting period immediately preceding the transfer and verified in accordance with regulation 6.6 of this Annex shall be taken as the annual operational carbon intensity rating of the ship after transfer and until the next verification of the attained annual carbon intensity indicator of the ship required by regulation 6.6 of this Annex. Nothing in regulation relieves any Company of their reporting obligations under regulation 22A or 22B of this Annex.

Required annual operational carbon intensity indicator (CII)

4 For each ship of 5,000 gross tonnage and above, which falls into one or more of the categories in regulations 2.25 to 2.31, 2.33 to 2.35, 2.38 and 2.39 of this Annex, the required annual operational CII shall be determined as follows:

$$\text{Required annual operational CII} = (1 - Z/100) \times \text{CII}_R$$

where,

Z is the annual reduction factor to ensure continuous improvement of the ship's operational carbon intensity within a specific rating level; and

CII_R is the reference value.

5 The annual reduction factor Z⁷ and the reference value CII_R shall be the values defined taking into account the guidelines to be developed by the Organization.

Operational carbon intensity rating

6 *Attained annual operational CII* shall be documented and verified against the required annual operational CII to determine operational carbon intensity rating A, B, C, D or E, indicating a major superior, minor superior, moderate, minor inferior, or inferior performance level, either by the Administration or by any organization duly authorized by it, taking into account guidelines developed by the Organization. The middle point of rating level C shall be the value equivalent to the required annual operational CII set out in paragraph 4 of this regulation.

Corrective actions and incentives

7 A ship rated D for 3 consecutive years or rated as E, shall develop a plan of corrective actions to achieve the required annual operational CII.

8 The SEEMP shall be reviewed to include the plan of corrective actions accordingly, taking into account guidelines developed by the Organization. The revised SEEMP shall be submitted to the Administration or any organization duly authorized by it for verification within 1 month after reporting the attained annual operational CII in accordance with paragraph 2 of this regulation.

⁷ The annual reduction factor is specific to each category of ship and is a function of the size of the ship. This factor is defined to increase progressively to meet the objectives of the Initial IMO Strategy.

9 A ship rated as D for 3 consecutive years or rated as E shall duly undertake the planned corrective actions in accordance with the updated SEEMP.

10 Administrations, port authorities and other stakeholders as appropriate, are encouraged to provide incentives to ships rated as A or B.

Review

11 A review shall be completed by 1 January 2026 by the Organization to assess:

- .1 the effectiveness of this regulation in reducing the carbon intensity of international shipping;
- .2 the need for reinforced corrective actions or other means of remedy, including possible additional EEXI requirements;
- .3 the need for enhancement of the enforcement mechanism;
- .4 the need for enhancement of the data collection system; and
- .5 revision of the Z factor and CII_R values.

If based on the review, the Parties decide to adopt amendments to this regulation, such amendments shall be adopted and enter into force in accordance with the procedures contained in article 16 of the present Convention."

Appendices

22 Existing appendix VIII is replaced by the following:

"

APPENDIX VIII

Form of International Energy Efficiency (IEE) Certificate

INTERNATIONAL ENERGY EFFICIENCY CERTIFICATE

Issued under the provisions of the Protocol of 1997, as amended, to amend the International Convention for the Prevention of Pollution by Ships, 1973, as modified by the Protocol of 1978 related thereto (hereinafter referred to as "the Convention") under the authority of the Government of:

.....
(full designation of the Party)

by
(full designation of the competent person or organization
authorized under the provisions of the Convention)

Particulars of ship⁸

Name of ship

Distinctive number or letters

Port of registry

Gross tonnage

IMO Number⁹

THIS IS TO CERTIFY:

- 1 That the ship has been surveyed in accordance with regulation 5.4 of Annex VI of the Convention; and
- 2 That the survey shows that the ship complies with the applicable requirements in regulation 20, regulation 20A, regulation 21, regulation 21A and regulation 22.

Completion date of survey on which this Certificate is based: (dd/mm/yyyy)

Issued at
(place of issue of Certificate)

(dd/mm/yyyy):
(date of issue)

.....
(signature of duly authorized official
issuing the Certificate)

(seal or stamp of the authority, as appropriate)

⁸ Alternatively, the particulars of the ship may be placed horizontally in boxes.

⁹ In accordance with the *IMO Ship Identification Number Scheme* (resolution A.1117(30)).

**Supplement to the International Energy Efficiency Certificate
(IEE Certificate)**

**RECORD OF CONSTRUCTION RELATING TO ENERGY
EFFICIENCY**

Notes:

- 1 This Record shall be permanently attached to the IEE Certificate. The IEE Certificate shall be available on board the ship at all times.
- 2 The Record shall be at least in English, French or Spanish. If an official language of the issuing Party is also used, this shall prevail in case of a dispute or discrepancy.
- 3 Entries in boxes shall be made by inserting either: a cross (x) for the answers "yes" and "applicable"; or a dash (-) for the answers "no" and "not applicable", as appropriate.
- 4 Unless otherwise stated, regulations mentioned in this Record refer to regulations in Annex VI of the Convention, and resolutions or circulars refer to those adopted by the International Maritime Organization.

1 Particulars of ship

- 1.1 Name of ship
- 1.2 IMO number
- 1.3 Date of building contract
- 1.4 Gross tonnage
- 1.5 Deadweight
- 1.6 Type of ship¹⁰

2 Propulsion system

- 2.1 Diesel propulsion ☐
- 2.2 Diesel-electric propulsion ☐
- 2.3 Turbine propulsion ☐
- 2.4 Hybrid propulsion ☐
- 2.5 Propulsion system other than any of the above ☐

¹⁰ Insert ship type in accordance with definitions specified in regulation 2. Ships falling into more than one of the ship types defined in regulation 2 should be considered as being the ship type with the most stringent (the lowest) required EEDI. If ship does not fall into the ship types defined in regulation 2, insert "Ship other than any of the ship type defined in regulation 2".

3 Attained Energy Efficiency Design Index (EEDI)

- 3.1 The attained EEDI in accordance with regulation 20.1 is calculated based on the information contained in the EEDI technical file which also shows the process of calculating the attained EEDI..... ☐

The attained EEDI is: grams-CO₂/tonne-mile

- 3.2 The attained EEDI is not calculated as:

- 3.2.1 the ship is exempt under regulation 20.1 as it is not a new ship as defined in regulation 2.23 ☐

- 3.2.2 the type of propulsion system is exempt in accordance with regulation 19.3 ☐

- 3.2.3 the requirement of regulation 20 is waived by the ship's Administration in accordance with regulation 19.4 ☐

- 3.2.4 the type of ship is exempt in accordance with regulation 20.1 ☐

4 Required EEDI

- 4.1 Required EEDI is: grams-CO₂/tonne-mile

- 4.2 The required EEDI is not applicable as:

- 4.2.1 the ship is exempt under regulation 21.1 as it is not a new ship as defined in regulation 2.23 ☐

- 4.2.2 the type of propulsion system is exempt in accordance with regulation 19.3..... ☐

- 4.2.3 the requirement of regulation 21 is waived by the ship's Administration in accordance with regulation 19.4 ☐

- 4.2.4 the type of ship is exempt in accordance with regulation 21.1 ☐

- 4.2.5 the ship's capacity is below the minimum capacity threshold in table 1 of regulation 21.2..... ☐

5 Attained Energy Efficiency Existing Ship Index (EEXI)

- 5.1 The attained EEXI in accordance with regulation 20A.1 is calculated taking into account guidelines¹¹ developed by the Organization..... ☐

The attained EEXI is:.....grams-CO₂/tonne-mile

- 5.2 The attained EEXI is not calculated as:

- 5.2.1 the type of propulsion system is exempt in accordance with regulation 19.3..... ☐

- 5.2.2 the type of ship is exempt in accordance with regulation 20A.1..... ☐

¹¹ Guidelines on the method of calculation of the Energy Efficiency Existing Ship Index to be developed by the Organization.

6 Required EEXI

6.1 Required EEXI is:.....grams-CO₂/tonne-mile in accordance with regulation 21A

6.2 The required EEXI is not applicable as:

6.2.1 the type of propulsion system is exempt in accordance with regulation 19.3..... ☐

6.2.2 the type of ship is exempt in accordance with regulation 21A.1..... ☐

6.2.3 the ship's capacity is below the minimum capacity threshold in table 3 of regulation 21A.1..... ☐

7 Ship Energy Efficiency Management Plan

7.1 The ship is provided with a Ship Energy Efficiency Management Plan (SEEMP) in compliance with regulation 22..... ☐

8 EEDI technical file

8.1 The IEE Certificate is accompanied by the EEDI technical file in compliance with regulation 20.1..... ☐

8.1.1 The EEDI technical file identification/verification number.....

8.1.2 The EEDI technical file verification date.....

9 EEXI technical file

9.1 The IEE Certificate is accompanied by the EEXI technical file in compliance with regulation 20A.1..... ☐

9.1.1 The EEXI technical file identification/verification number.....

9.1.2 The EEXI technical file verification date.....

9.2 The IEE Certificate is not accompanied by the EEXI technical file as the attained EEDI is used as an alternative to the attained EEXI..... ☐

THIS IS TO CERTIFY that this Record is correct in all respects.

Issued at
(place of issue of the Record)

(dd/mm/yyyy):
(date of issue) (signature of duly authorized official
issuing the Record)

(seal or stamp of the authority, as appropriate)

23 Existing appendix X is replaced by the following:

" APPENDIX X

Form of Statement of Compliance – Fuel Oil Consumption Reporting and Operational Carbon Intensity rating

STATEMENT OF COMPLIANCE – FUEL OIL CONSUMPTION REPORTING AND OPERATIONAL CARBON INTENSITY RATING

Issued under the provisions of the Protocol of 1997, as amended, to amend the International Convention for the Prevention of Pollution by Ships, 1973, as modified by the Protocol of 1978 related thereto (hereinafter referred to as "the Convention") under the authority of the Government of:

.....
(full designation of the Party)

by.....
(full designation of the competent person or organization authorized under the provisions of the Convention)

Particulars of ship¹²

Name of ship.....

Distinctive number or letters.....

IMO Number¹³.....

Port of registry.....

Gross tonnage.....

Deadweight.....

Type of ship.....

THIS IS TO DECLARE:

- 1 That the ship has submitted to this Administration the data required by regulation 22A of Annex VI of the Convention, covering ship operations from (dd/mm/yyyy) through (dd/mm/yyyy);
- 2 The data was collected and reported in accordance with the methodology and processes set out in the ship's SEEMP that was in effect over the period from (dd/mm/yyyy) through (dd/mm/yyyy);
- 3 The attained annual operational CII of the ship from (dd/mm/yyyy) through (dd/mm/yyyy) was:;

¹² Alternatively, the particulars of the ship may be placed horizontally in boxes.

¹³ In accordance with the *IMO Ship Identification Number Scheme* (resolution A.1117(30)).

- 4 The operational carbon intensity of the ship in this period is rated as
 ☐A ☐B ☐C ☐D ☐E,
 in accordance with regulation 22B of Annex VI of the Convention, for ships to which
 regulation 22B applies; and
- 5 A corrective action plan has been developed and included in the SEEMP (for ships to
 which regulation 22B applies, rated as D for 3 consecutive years or rated as E).

This Statement of Compliance is valid until (dd/mm/yyyy)

Issued at.....

(place of issue of the Statement)

(dd/mm/yyyy):

(date of issue)

.....
*(signature of duly authorized official
issuing the Statement)*

(seal or stamp of the authority, as appropriate)"

ANNEX 6

TERMS OF REFERENCE AND ARRANGEMENTS FOR THE CONDUCT OF A COMPREHENSIVE IMPACT ASSESSMENT OF THE SHORT-TERM MEASURE BEFORE MEPC 76

1 In accordance with the *Initial IMO Strategy on reduction of GHG emissions from ships* (resolution MEPC.304(72)), the impacts on States of a measure should be assessed and taken into account as appropriate before adoption of the measure. A comprehensive impact assessment of the short-term measure should be conducted as set out in the *Procedure for assessing impacts on States of candidate measures* (MEPC.1/Circ.885).

2 The comprehensive impact assessment should assess the impacts on States of the short-term measure, including developing countries, in particular on least developed countries (LDCs) and small island developing States (SIDS), and take into account, as appropriate:

- .1 initial and detailed impacts assessments of individual elements forming part of the proposed combined measure including a detailed description of the method and sources of data utilized;¹
- .2 relevant available information from the IMO ship fuel oil consumption database and the *Fourth IMO GHG Study 2020*;
- .3 documents submitted to ISWG-GHG 7 on assessing the impacts on States, in particular documents ISWG-GHG 7/2/10 (Mexico, Solomon Islands and Tonga) (ISWG-GHG 7/2/11 (Solomon Islands and Tonga); ISWG-GHG 7/2/34 (Argentina et al.), ISWG-GHG 7/2/36 (Secretariat), the Review of the comprehensiveness of the impact assessments submitted to the seventh session of the International Maritime Organization's Intersessional Working Group on the Reduction of GHG Emissions from Ships and any other relevant document submitted to ISWG-GHG 7; and
- .4 any relevant information for assessing the impacts on States provided by interested Member States and international organizations.²

3 The comprehensive impact assessment of the short-term measure should be commensurate to its complexity and nature, and include the elements identified in MEPC.1/Circ.885, in particular paragraphs 8 and 15, and take into account the following:

- .1 a review of peer-reviewed literature, including ex-post analysis;
- .2 a statistically relevant number of case studies, to be possibly complemented by a number of illustrative case studies representative of broader trade conditions that might be shared across developing countries, including SIDS, LDCs and countries remote from their import/export markets;
- .3 to the extent already possible, the disproportionate impacts on States, including developing countries, in particular LDCs and SIDS, of the measure, in the context of the COVID-19 pandemic, and consider potential additional impacts of the measure on projected economic scenarios;

¹ Whenever such disclosure is possible.

² Member States and international organizations are invited to submit relevant information to the Secretariat (ghg@imo.org) at their earliest convenience; a deadline will be set up by the Steering Committee at its first meeting.

- .4 the identification of areas of missing data;
- .5 an assessment of possible impacts on States arising from the resulting changes and performance of the global fleet as indicated in paragraph 4.11 of the Initial Strategy;³
- .6 any basic stakeholder analysis (SHA) undertaken by Member States to understand the amount of speed reduction-based delay acceptable to various commodities to avoid any disproportionately negative impacts; and
- .7 an assessment of whether the measure is likely to result in disproportionately negative impacts on States, including developing countries, in particular on LDCs and SIDs.

4 The comprehensive impact assessment should be policy neutral.

Steering Committee

5 In line with the practice for the conduct of IMO GHG studies, a Steering Committee of Member States should be established following an agreement by the Committee at its seventy-fifth session. The Steering Committee should be geographically balanced (e.g. with reference to the five United Nations regions), and appropriately represent developing and developed countries. Relevant stakeholders should also be represented.

6 The Steering Committee should be of a manageable size. Taking into account the importance of the comprehensive impact assessment and the need for the Steering Committee to be established in a transparent, open and fair manner, the Secretary-General should as soon as possible invite nominations from all Member States by issuance of a circular letter. Depending on the number of nominations to be received, the size and members of the Steering Committee should be decided and announced by the Secretary-General accordingly. The Steering Committee should be coordinated by the Vice-Chair of the Marine Environment Protection Committee, in line with the practice for the Ad hoc Capacity-building Needs Analysis Group (ACAG).

7 The Steering Committee should:

- .1 act as a focal point for the Committee;
- .2 consider and agree on the outline of the comprehensive impact assessment and associated timeline;
- .3 review and monitor the progress of the comprehensive impact assessment, including providing feedback on the main methods, databases and data sources to be used, in line with agreed timelines; and
- .4 confirm that the comprehensive impact assessment meets the terms of reference set out in paragraphs 2 to 4.

³ With the focus on ships' safety, operation and transport cost, as well as the extent to which ships will be able to meet the requirements of the short-term measure, retrofitting and commercial behaviour, substitution effects for a sample of relevant commodities and trade flows, additional administrative burden of implementation and cost-effectiveness of the measure and potential disproportionately negative impacts on States, including developing countries, in particular on SIDS and LDCs.

8 The Steering Committee should provide recommendations to the Committee. It should, as much as possible, work by consensus, make all efforts to ensure timely completion of the comprehensive impact assessment, aim at assisting the Committee to make evidence-based decisions, and undertake its work using modern communication methods, e.g. by email and teleconferencing.

Contract and implementation

9 The Secretariat will be responsible for initiating and facilitating the process of conducting the comprehensive impact assessment.

10 The Secretariat is invited to involve UNCTAD in the conduct of the comprehensive impact assessment. Other UN agencies, UN regional commissions and relevant stakeholders may be consulted.

11 The Secretariat should organize an expert workshop/webinar on the draft final comprehensive impact assessment ahead of MEPC 76.

12 Interested Member States and international organizations are invited to provide relevant information that may inform the comprehensive impact assessment through the Secretariat.

13 Member States and international organizations are invited to financially contribute to the comprehensive impact assessment by means of a donation to the GHG-TC Trust Fund.

Delivery of the comprehensive impact assessment

14 The final comprehensive impact assessment of the short-term measure should be submitted to the seventy-sixth session of the Marine Environment Protection Committee to be held in spring 2021 for its consideration and analysis of measures to be implemented to address, as appropriate, any identified disproportionate impacts on developing States, including SIDS, LDCs and countries remote from their export markets.

15 On the basis of the comprehensive impact assessment, a framework for reviewing impacts on States including developing countries, in particular on LDCs and SIDS and countries remote from their export markets of the measure adopted, and addressing disproportionately negative impacts on States, as appropriate, should be considered.

16 The Committee will consider experience gained from the impact assessment in the development of future comprehensive impact assessments, as well as in preparing for the review of the measure, to be completed by 1 January 2026.

ANNEX 7

DRAFT AMENDMENTS TO THE AFS CONVENTION (ANNEXES 1 AND 4)

Annex 1

Controls on anti-fouling systems

1 The following rows are added to the table in Annex 1 to the AFS Convention:

| Anti-fouling system | Control measures | Application | Effective date |
|---------------------------------|---|---|--|
| Cybutryne CAS No. 28159-98-0 | Ships shall not apply or reapply anti-fouling systems containing this substance | All ships | 1 January 2023 |
| Cybutryne CAS No. 28159-98-0 | Ships bearing an anti-fouling system that contains this substance in the external coating layer of their hulls or external parts or surfaces on 1 January 2023 shall either: (1) remove the anti-fouling system; or (2) apply a coating that forms a barrier to this substance leaching from the underlying non-compliant anti-fouling system | All ships (except: (1) fixed and floating platforms, FSUs, and FPSOs that have been constructed prior to 1 January 2023 and that have not been in dry-dock on or after 1 January 2023; (2) ships not engaged in international voyages; and (3) ships of less than 400 gross tonnage engaged in international voyages, if accepted by the coastal State(s)) | At the next scheduled renewal of the anti-fouling system after 1 January 2023, but no later than 60 months following the last application to the ship of an anti-fouling system containing cybutryne |

Annex 4

Surveys and certification requirements for anti-fouling systems

2 Regulation 2(3) is replaced by the following:

"(3) For ships bearing an anti-fouling system controlled under Annex 1 that was applied before the date of entry into force of a control for such a system, the Administration shall issue a Certificate in accordance with paragraphs (1) and (2) of this regulation not later than 2 years after entry into force of that control. This paragraph shall not affect any requirement for ships to comply with Annex 1."

Appendix 1 to Annex 4

Model form of International Anti-fouling System Certificate

3 The section of the model form of the International Anti-fouling System Certificate (appendix 1) listing the compliance options for controlled anti-fouling systems on the ship is replaced by the following:

"An anti-fouling system controlled under Annex 1 containing:

| | has not been applied during or after construction of this ship | has been applied on this ship previously, but has been removed by | has been applied on this ship previously, but has been covered with a sealer coat applied by | was applied on this ship prior to |
|---|--|--|--|--|
| organotin compounds which act as biocides | <input type="checkbox"/> | (insert name of the facility) on (date) <input type="checkbox"/> | (insert name of the facility) on (date) <input type="checkbox"/> | No longer applicable |
| cybutryne | <input type="checkbox"/> | (insert name of the facility) on (date) <input type="checkbox"/> | (insert name of the facility) on (date) <input type="checkbox"/> | 1 January 2023, but must be removed or covered with a sealer coat prior to <input type="checkbox"/> |

"

ANNEX 8**DRAFT AMENDMENTS TO MARPOL ANNEX I****(Prohibition on the use and carriage for use as fuel of heavy fuel oil by ships in Arctic waters)**

- 1 The title of chapter 9 is amended as follows:

"Chapter 9 – Special requirements for the use or carriage of oils in polar waters"

- 2 A new regulation 43A is added in chapter 9 after existing regulation 43, as follows:

"Regulation 43A

Special requirements for the use and carriage of oils as fuel in Arctic waters

1 With the exception of ships engaged in securing the safety of ships or in search and rescue operations, and ships dedicated to oil spill preparedness and response, the use and carriage of oils identified in paragraph 1.2 of regulation 43 as fuel by ships shall be prohibited in Arctic waters, as defined in regulation 46.2 of this Annex, on and after 1 July 2024.

2 Notwithstanding the provisions of paragraph 1 of this regulation, for ships to which regulation 12A of this Annex or regulation 1.2.1 of chapter 1 of part II-A of the Polar Code apply, the use and carriage of oils identified in paragraph 1.2 of regulation 43 as fuel by ships shall be prohibited in Arctic waters, on and after 1 July 2029.

3 When prior operations have included the use and carriage of oils listed in paragraph 1.2 of regulation 43 as fuel, the cleaning or flushing of tanks or pipelines is not required.

4 Notwithstanding the provisions of paragraphs 1 and 2 of this regulation, the Administration of a Party to the present Convention, the coastline of which borders on Arctic waters, may temporarily waive the requirements of paragraph 1 of this regulation for ships flying the flag of the Party while operating in waters subject to the sovereignty or jurisdiction of that Party, taking into account the guidelines to be developed by the Organization. No waivers issued under this paragraph shall apply on and after 1 July 2029.

5 The Administration of a Party to the present Convention which allows application of paragraph 4 of this regulation shall communicate to the Organization for circulation to the Parties particulars thereof, for their information and appropriate action, if any."

ANNEX 9**DRAFT AMENDMENTS TO MARPOL ANNEXES I, IV AND VI****(Exemption of UNSP barges from survey and certification requirements)****MARPOL ANNEX I****REGULATIONS FOR THE PREVENTION OF POLLUTION BY OIL****Regulation 1***Definitions*

- 1 The following new paragraph 40 is added after the existing paragraph 39:

"40 *Unmanned non-self-propelled (UNSP) barge* means a barge that:

- .1 is not propelled by mechanical means;
- .2 carries no oil (as defined in regulation 1.1 of this Annex);
- .3 has no machinery fitted that may use oil or generate oil residues;
- .4 has no fuel oil tank, lubricating oil tank and bilge/oil residues tank;
and
- .5 has neither persons nor living animals on board."

Regulation 3*Exemption and waivers*

- 2 The existing paragraph 2 is replaced with the following:

"2 Particulars of any such exemption, except those under paragraph 7 of this regulation, granted by the Administration shall be indicated in the Certificate referred to in regulation 7 of this Annex."

- 3 The following new paragraph 7 is added after the existing paragraph 6:

"7 The Administration may exempt an unmanned non-self-propelled (UNSP) barge¹ from the requirements of regulations 6.1 and 7.1 of this Annex, by an International Oil Pollution Prevention Exemption Certificate for Unmanned Non-self-propelled Barges, for a period not exceeding 5 years provided that the barge has undergone a survey to confirm that conditions referred to in regulations 1.39.1 to 1.39.5 of this Annex are met."

¹ Refer to the *Guidelines for exemption of unmanned non-self-propelled barges from the survey and certification requirements under the MARPOL Convention* (MEPC.1/Circ.[...]).

Regulation 9

Form of certificate

4 The existing paragraph is numbered as paragraph 1 and the following new paragraph 2 is added after paragraph 1:

"2 The International Oil Pollution Exemption Certificate for Unmanned Non-self-propelled Barges shall be drawn up in the form corresponding to the model given in appendix IV to this Annex and shall be at least in English, French or Spanish. If an official language of the issuing country is also used, this shall prevail in the event of a dispute or discrepancy."

Appendices

5 New appendix IV is added after the existing appendix III, as follows:

"

APPENDIX IV

Form of Exemption Certificate for UNSP Barges

INTERNATIONAL OIL POLLUTION PREVENTION EXEMPTION CERTIFICATE FOR UNMANNED NON-SELF-PROPELLED BARGES

Issued under the provisions of the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto, as amended, (hereinafter referred to as "the Convention") under the authority of the Government of:

.....
(full designation of the country)

by
(full designation of the competent person or organization
authorized under the provisions of the Convention)

Particulars of ship²

Name of ship
Distinctive number or letters
Port of registry
Gross tonnage

THIS IS TO CERTIFY:

1 that the unmanned non-self-propelled barge has been surveyed in accordance with regulation 3.7 of Annex I to the Convention;

2 that the survey shows that the unmanned non-self-propelled barge:

- .1 is not propelled by mechanical means;
- .2 carries no oil (as defined in regulation 1.1 of MARPOL Annex I);
- .3 has no machinery fitted that may use oil or generate oil residues;
- .4 has no fuel oil tank, lubricating oil tank and bilge/oil residues tank; and
- .5 has neither persons nor living animals on board.

3 That the ship is exempted, under regulation 3.7 of Annex I to the Convention, from the certification and related survey requirements of regulations 6.1 and 7.1.

² Alternatively, the particulars of the ship may be placed horizontally in boxes.

This Certificate is valid until (dd/mm/yyyy).....

subject to the exemption conditions being maintained.

Completion date of the survey on which this certificate is based (dd/mm/yyyy).....

Issued at

(place of issue of Certificate)

(dd/mm/yyyy):

(date of issue)

.....

*(signature of duly authorized official
issuing the Certificate)*

(seal or stamp of the issuing authority, as appropriate)"

MARPOL ANNEX IV

REGULATIONS FOR THE PREVENTION OF POLLUTION BY SEWAGE FROM SHIPS

Regulation 1

Definitions

6 The following new paragraph 16 is added after the existing paragraph 15:

- "16 *Unmanned non-self-propelled (UNSP) barge* means a barge that:
- .1 is not propelled by mechanical means;
 - .2 has neither persons nor living animals on board;
 - .3 is not used for holding sewage during transport; and
 - .4 has no arrangements that could produce sewage as defined in regulation 1.3."

Regulation 3

Exceptions

7 The title of the regulation is replaced by the following:

"Exceptions and Exemptions"

8 The following new paragraph 2 is added after the existing paragraph 1:

"2 The Administration may exempt an unmanned non-self-propelled (UNSP) barge³ from the requirements of regulations 4.1 and 5.1 of this Annex, by an International Sewage Prevention Exemption Certificate for Unmanned Non-self-propelled Barges, for a period not exceeding 5 years provided that the barge has undergone a survey to confirm that conditions referred to in regulations 1.16.1 to 1.16.4 of this Annex are met."

Regulation 7

Form of certificate

9 The existing paragraph is numbered as paragraph 1 and the following new paragraph 2 is added after paragraph 1:

"2 The International Sewage Prevention Exemption Certificate for Unmanned Non-self-propelled Barges shall be drawn up in the form corresponding to the model given in appendix II to this Annex and shall be at least in English, French or Spanish. If an official language of the issuing country is also used, this shall prevail in the event of a dispute or discrepancy."

Appendices

10 The existing appendix is numbered as appendix I and a new appendix II is added after appendix I, as follows:

³ Refer to the *Guidelines for exemption of unmanned non-self-propelled barges from the survey and certification requirements under the MARPOL Convention* (MEPC.1/Circ.[...]).

"

APPENDIX II

Form of Exemption Certificate for UNSP Barges

INTERNATIONAL SEWAGE POLLUTION PREVENTION EXEMPTION CERTIFICATE FOR UNMANNED NON-SELF-PROPELLED BARGES

Issued under the provisions of the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto, as amended, (hereinafter referred to as "the Convention") under the authority of the Government of:

.....
(full designation of the country)

by
(full designation of the competent person or organization
authorized under the provisions of the Convention)

Particulars of ship⁴

Name of ship
Distinctive number or letters
Port of registry
Gross tonnage

THIS IS TO CERTIFY:

- 1 that the unmanned non-self-propelled barge has been surveyed in accordance with regulation 3.2 of Annex IV to the Convention;
- 2 that the survey shows that the unmanned non-self-propelled barge:
 - .1 is not propelled by mechanical means;
 - .2 has neither persons nor living animals on board;
 - .3 is not used for holding sewage during transport; and
 - .4 has no arrangements that could produce sewage as defined in regulation 1.3 of MARPOL Annex IV.
- 3 that the ship is exempted, under regulation 3.2 of Annex IV to the Convention, from the certification and related survey requirements of regulations 4.1 and 5.1.

⁴ Alternatively, the particulars of the ship may be placed horizontally in boxes.

This Certificate is valid until (dd/mm/yyyy).....

subject to the exemption conditions being maintained.

Completion date of the survey on which this certificate is based (dd/mm/yyyy).....

Issued at
(place of issue of Certificate)

(dd/mm/yyyy):
(date of issue)

.....
(signature of duly authorized official
issuing the Certificate)

(seal or stamp of the issuing authority, as appropriate)"

MARPOL ANNEX VI

REGULATIONS FOR THE PREVENTION OF AIR POLLUTION FROM SHIPS

Regulation 2

Definitions

- 1 New paragraphs 57 is added after existing paragraph 56, as follows:

"57 *Unmanned non-self-propelled (UNSP) barge* means a barge that:

- .1 is not propelled by mechanical means;
- .2 has no system, equipment and/or machinery fitted that may generate emissions regulated by this Annex; and
- .3 has neither persons nor living animals on board."

Regulation 3

Exceptions and Exemptions

- 2 New paragraph 4 is added after existing paragraph 3.2, as follows:

"Unmanned non-self-propelled (UNSP) barges

4 The Administration may exempt an unmanned, non-self-propelled (UNSP) barge⁵ from the requirements of regulations 5.1 and 6.1 of this Annex, by an International Air Pollution Prevention Exemption Certificate for Unmanned Non-self-propelled Barges, for a period not exceeding 5 years provided that the barge has undergone a survey to confirm that conditions referred to in regulations 2.57.1 to 2.57.3 of this Annex are met."

Regulation 8

Form of Certificates and Statements of Compliance related to fuel oil consumption reporting

- 3 New paragraph 4 and associated title are added after paragraph 3, as follows:

"International Air Pollution Exemption Certificate for Unmanned Non-self-propelled Barges

4 In accordance with regulation 3.4 of this Annex, the International Air Pollution Exemption Certificate for Unmanned Non-self-propelled Barges shall be drawn up in the form corresponding to the model given in appendix XI to this Annex and shall be at least in English, French or Spanish. If an official language of the issuing country is also used, this shall prevail in the event of a dispute or discrepancy."

⁵ Refer to the *Guidelines for exemption of unmanned non-self-propelled barges from the survey and certification requirements under the MARPOL Convention* (MEPC.1/Circ.[...]).

Appendices

4 New appendix XI is added after appendix X, as follows:

" APPENDIX XI

Form of Exemption Certificate for UNSP Barges

INTERNATIONAL AIR POLLUTION PREVENTION EXEMPTION CERTIFICATE FOR UNMANNED NON-SELF-PROPELLED BARGES

Issued under the provisions of the Protocol of 1997, as amended, to amend the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto, (hereinafter referred to as "the Convention") under the authority of the Government of:

.....
(full designation of the country)

by
(full designation of the competent person or organization
authorized under the provisions of the Convention)

Particulars of ship⁶

Name of ship.....
Distinctive number or letters
Port of registry
Gross tonnage

THIS IS TO CERTIFY:

- 1 that the unmanned non-self-propelled barge has been surveyed in accordance with regulation 3.4 of Annex VI of the Convention;
- 2 that the survey shows, the unmanned non-self-propelled:
 - .1 is not propelled by mechanical means;
 - .2 has no system, equipment and/or machinery fitted that may generate emissions controlled by MARPOL Annex VI; and
 - .3 has neither persons nor living animals on board;
- 3 that the ship is exempted, under regulation 3.4 of Annex VI of the Convention from the certification and related survey requirements of regulations 5.1 and 6.1.

⁶ Alternatively, the particulars of the ship may be placed horizontally in boxes.

This Certificate is valid until (dd/mm/yyyy)

subject to the exemption conditions being maintained.

Completion date of the survey on which this certificate is based (dd/mm/yyyy)

Issued at
(place of issue of Certificate)

(dd/mm/yyyy):
(date of issue)

.....
(signature of duly authorized official
issuing the Certificate)

(seal or stamp of the issuing authority, as appropriate)"

ANNEX 10

BIENNIAL STATUS REPORT OF THE PPR SUB-COMMITTEE

| Reference to SD, if applicable | Output number | Description ¹ | Target completion year | Parent organ(s) | Associated organ(s) | Coordinating organ | Status of output for Year 1 | Status of output for Year 2 | References |
|--------------------------------|---------------|--|------------------------|-----------------|-----------------------------------|--------------------|-----------------------------|-----------------------------|---|
| 1. Improve implementation | 1.3 | Validated model training courses | Continuous | MSC / MEPC | III / PPR/ CCC / SDC / SSE / NCSR | HTW | No work requested | | |
| 1. Improve implementation | 1.11 | Measures to harmonize port State control (PSC) activities and procedures worldwide | Continuous | MSC / MEPC | HTW / PPR / NCSR | III | Ongoing | | MEPC 74/18, paragraphs 5.118, 5.120 and annex 15; and PPR 7/22, section 21 |
| 1. Improve implementation | 1.12 | Review of the 2015 Guidelines for exhaust gas cleaning systems (resolution MEPC.259(68)) | 2020 | MEPC | PPR | | Postponed | | MEPC 69/21, paragraphs 19.4 and 19.5; PPR 5/24, section 11; PPR 6/20, section 11; PPR 7/22, section 11; and MEPC 75/18, paragraphs 10.35 and 14.2.2 |
| 1. Improve implementation | 1.14 | Revised guidance on ballast water sampling and analysis | 2021 | MEPC | PPR | | Complete | | MEPC 68/21, paragraphs 7.14 and 17.26; MEPC 70/18, paragraph 4.47; |

¹ Outputs printed in bold have been selected for the draft provisional agenda for PPR 8.

| Reference to SD, if applicable | Output number | Description ¹ | Target completion year | Parent organ(s) | Associated organ(s) | Coordinating organ | Status of output for Year 1 | Status of output for Year 2 | References |
|--------------------------------|---------------|---|------------------------|-----------------|---------------------|--------------------|-----------------------------|-----------------------------|---|
| | | | | | | | | | MEPC 71/17, paragraph 4.45; PPR 6/20, section 4; MEPC 74/14, paragraph 4.36; PPR 7/22, section 4; and MEPC 75/18, paragraph 10.28 |
| 1. Improve implementation | 1.15 | Revised guidance on methodologies that may be used for enumerating viable organisms | 2021 | MEPC | PPR | | In progress | | MEPC 71/17, paragraph 4.54; PPR 5/24, section 6; PPR 6/20, section 5; PPR 7/22, section 5; and MEPC 75/18, paragraph 14.2.2 |
| 1. Improve implementation | 1.17 | Development of guidelines for onboard sampling of fuel oil not in use by the ship | 2020 | MEPC | PPR | | Complete | | MEPC 74/18, paragraphs 5.57 to 5.59; PPR 7/22, section 9; and MEPC 75/18, paragraph 10.24 |
| 1.Improve implementation | 1.21 | Review of the 2011 Guidelines for the control and management of ships' biofouling to minimize the transfer of invasive aquatic species (resolution MEPC.207(62)) | 2021 | MEPC | PPR | | In progress | | MEPC 72/17, para.15.8; and PPR 7/22, section 7 |

| Reference to SD, if applicable | Output number | Description ¹ | Target completion year | Parent organ(s) | Associated organ(s) | Coordinating organ | Status of output for Year 1 | Status of output for Year 2 | References |
|---|---------------|---|------------------------|-----------------|-----------------------|--------------------|-----------------------------|-----------------------------|--|
| 1. Improve implementation | 1.23 | Evaluation and harmonization of rules and guidance on the discharge of liquid effluents from EGCS into waters, including conditions and areas | 2021 | MEPC | PPR | | In progress | | MEPC 74/18, paragraph 14.11; PPR 7/22, section 12; and MEPC 75/18, paragraphs 10.35 and 14.2.2 |
| 1. Improve implementation | 1.26 | Revision of MARPOL Annex IV and associated guidelines to introduce provisions for record-keeping and measures to confirm the lifetime performance of sewage treatment plants | 2021 | MEPC | III / HTW | PPR | In progress | | MEPC 74/18, paras 14.2 to 14.7; and PPR 7/22, section 16 |
| 2. Integrate new and advancing technologies in the regulatory framework | 2.3 | Amendments to the IGF Code and development of guidelines for low-flashpoint fuels | Continuous | MSC | HTW / PPR / SDC / SSE | CCC | No work requested | | MSC 94/21, paragraphs 18.5 and 18.6; MSC 96/25, paragraphs 10.1 to 10.3; and MSC 102/24, paragraph 21.4 |
| 2. Integrate new and advancing technologies in the regulatory framework | 2.13 | Review of the IBTS Guidelines and amendments to the IOPP Certificate and Oil Record Book | 2020 | MEPC | PPR | | Postponed | | MEPC 70/18, paragraph 15.12; PPR 5/24, section 12; PPR 6/20, section 13; PPR 7/22, section 15; and MEPC 75/18, paragraph 10.35 |

| Reference to SD, if applicable | Output number | Description ¹ | Target completion year | Parent organ(s) | Associated organ(s) | Coordinating organ | Status of output for Year 1 | Status of output for Year 2 | References |
|---|---------------|---|------------------------|-----------------|---------------------|--------------------|-----------------------------|-----------------------------|---|
| 2. Integrate new and advancing technologies in the regulatory framework | 2.15 | Development of amendments to MARPOL Annex VI and the NO _x Technical Code on the use of multiple engine operational profiles for a marine diesel engine | 2021 | MEPC | PPR | | In progress | | MEPC 73/19, paragraph 15.18; PPR 7/22, section 13; and MEPC 75/18, paragraph 14.2.2 |
| 2. Integrate new and advancing technologies in the regulatory framework | 2.18 | Standards for shipboard gasification of waste systems and associated amendments to regulation 16 of MARPOL Annex VI | 2020 | MEPC | PPR | | Extended | | MEPC 70/17, paragraph 15.17; PPR 5/24, section 8; MEPC 72/17, paragraph 15.10; PPR 6/20, section 10; PPR 7/22, section 10; and MEPC 75/18, paragraphs 14.1 and 14.2.2 |
| Note: The Sub-Committee requested MEPC to extend the target completion year of output 2.18 to 2021. | | | | | | | | | |
| 2. Integrate new and advancing technologies in the regulatory framework | 2.19 | Amendment of Annex 1 to the AFS Convention to include controls on cybutryne, and consequential revision of relevant guidelines | 2020 | MEPC | PPR | | Extended | | MEPC 71/17, paragraph 14.3; PPR 5/24, section 19 and paragraph 24.2.25; MEPC 73/19, paragraphs 15.12 to 15.15; PPR 6/20, section 6; MEPC 74/18, paragraphs 10.19 and 10.20; |

| Reference to SD, if applicable | Output number | Description ¹ | Target completion year | Parent organ(s) | Associated organ(s) | Coordinating organ | Status of output for Year 1 | Status of output for Year 2 | References |
|--|-------------------|---|------------------------|-----------------|---------------------|--------------------|-----------------------------|-----------------------------|---|
| | | | | | | | | | PPR 7/22, section 6; and MEPC 75/18, paragraphs 14.1 and 14.2.2 |
| Note: The Sub-Committee requested MEPC to extend the target completion year of output 2.19 to 2022 and approve the change of title of the output to "Revision of guidelines associated with the AFS Convention as a consequence of the introduction of controls on cybutryne". | | | | | | | | | |
| 2. Integrate new and advancing technologies in the regulatory framework | 2... ² | Development of an operational guide on the response to spills of Hazardous and Noxious Substances (HNS) | 2022 | MEPC | PPR | | In progress | | MEPC 74/18, paragraph 14.20; and MEPC 75/18, paragraphs 14.1 and 14.2.2 |
| Note: The Sub-Committee requested MEPC to note that this above output has been moved to the provisional agenda of PPR 8 and that the target completion year has been set to 2022, taking into account that the Committee agreed that two sessions would be required to complete the work. However, MEPC 75 approved a reduced provisional agenda for PPR 8, which does not include this output. Consequently, the Sub-Committee during PPR 8 will consider including the output in its provisional agenda for PPR 9 and adjust the target completion year accordingly. | | | | | | | | | |
| 3. Respond to climate change | 3.3 | Reduction of the impact on the Arctic of Black Carbon emissions from international shipping | 2021 | MEPC | PPR | | In progress | | MEPC 71/17, paragraph 5.3; PPR 5/24, section 7 and paragraph 24.2.7; MEPC 73/19, paragraph 5.3; PPR 6/20, section 7; MEPC 74/18, paragraph 5.67; PPR 7/22, section 8; and |

² Included from the post-biennial agenda.

| Reference to SD, if applicable | Output number | Description ¹ | Target completion year | Parent organ(s) | Associated organ(s) | Coordinating organ | Status of output for Year 1 | Status of output for Year 2 | References |
|------------------------------------|---------------|--|------------------------|-----------------|------------------------------------|--------------------|-----------------------------|-----------------------------|--|
| | | | | | | | | | MEPC 75/18, paragraph 10.35 |
| 4. Engage in ocean governance | 4.3 | Follow-up work emanating from the Action Plan to address marine plastic litter from ships | 2021 | MEPC | PPR / III / HTW | | In progress | | MEPC 72/17, paragraphs 15.2 to 15.6; MEPC 73/19, section 8 and annex 10; MEPC 74/18, paragraph 8.37.1; PPR 7/22, section 17; and MEPC 75/18, paragraph 10.35 |
| 6. Ensure regulatory effectiveness | 6.1 | Unified interpretation of provisions of IMO safety, security, and environment-related conventions | Continuous | MSC / MEPC | III / PPR / CCC / SDC / SSE / NCSR | | Ongoing | | PPR 7/22, section 18 |
| 6. Ensure regulatory effectiveness | 6.3 | Safety and pollution hazards of chemicals and preparation of consequential amendments to the IBC Code | Continuous | MEPC | PPR | | Ongoing | | PPR 7/22, section 3; and MEPC 75/18, paragraphs 10.3 to 10.12 |
| 6. Ensure regulatory effectiveness | 6.11 | Development of measures to reduce risks of use and carriage of heavy fuel oil as fuel by ships in Arctic waters | 2020 | MEPC | PPR | | Extended | | MEPC 71/17, paragraph 14.13; MEPC 72/17, section 11; MEPC 73/19, section 9; MEPC 74/18, paragraphs 10.22 to 10.25; |

| Reference to SD, if applicable | Output number | Description ¹ | Target completion year | Parent organ(s) | Associated organ(s) | Coordinating organ | Status of output for Year 1 | Status of output for Year 2 | References |
|---|---------------|---------------------------|------------------------|-----------------|------------------------------------|--------------------|-----------------------------|-----------------------------|--|
| | | | | | | | | | PPR 7/22, section 14; and MEPC 75/18, paragraphs 10.29 to 10.33, 14.1 and 14.1.2 |
| Note: The Sub-Committee requested MEPC to extend the target completion year of output 6.11 to 2021. | | | | | | | | | |
| 6. Ensure regulatory effectiveness | 6.15 | Role of the human element | Continuous | MSC / MEPC | III / PPR / CCC / SDC / SSE / NCSR | HTW | No work requested | | |

ANNEX 11

PROVISIONAL AGENDA FOR PPR 8

- Opening of the session
- 1 Adoption of the agenda
 - 2 Decisions of other IMO bodies
 - 3 Safety and pollution hazards of chemicals and preparation of consequential amendments to the IBC Code (6.3)
 - 4 *Review of the 2011 Guidelines for the control and management of ships' biofouling to minimize the transfer of invasive aquatic species (resolution MEPC.207(62)) (1.21)*
 - 5 Reduction of the impact on the Arctic of emissions of Black Carbon from international shipping (3.3)
 - 6 Development of measures to reduce risks of use and carriage of heavy fuel oil as fuel by ships in Arctic waters (6.11)
 - 7 Revision of MARPOL Annex IV and associated guidelines to introduce provisions for record-keeping and measures to confirm the lifetime performance of sewage treatment plants (1.26)
 - 8 Follow-up work emanating from the Action Plan to address marine plastic litter from ships (4.3)
 - 9 Biennial status report and provisional agenda for PPR 9
 - 10 Election of Chair and Vice-Chair for 2022
 - 11 Any other business
 - 12 Report to the Marine Environment Protection Committee

ANNEX 12

STATUS REPORT OF THE OUTPUTS OF MEPC FOR THE 2020-2021 BIENNIUM

| MARINE ENVIRONMENT PROTECTION COMMITTEE (MEPC) | | | | | | | | | |
|--|---------------|--|------------------------|-----------------|------------------------------------|--------------------|-----------------------------|-----------------------------|----------------------------------|
| Reference to SD, if applicable | Output number | Description | Target completion year | Parent organ(s) | Associated organ(s) | Coordinating organ | Status of output for Year 1 | Status of output for Year 2 | References |
| 1. Improve implementation | 1.2 | Input on identifying emerging needs of developing countries, in particular SIDS and LDCs, to be included in the ITCP | Continuous | TCC | MSC / MEPC / FAL / LEG | | Ongoing | | MEPC 75/18, section 12 |
| 1. Improve implementation | 1.3 | Validated model training courses | Continuous | MSC / MEPC | III / PPR / CCC / SDC / SSE / NCSR | HTW | Ongoing | | MEPC 75/18, paras.11.3 to 11.5 |
| 1. Improve implementation | 1.4 | Analysis of consolidated audit summary reports | Annual | Assembly | MSC / MEPC / LEG / TCC / III | Council | Completed | | MEPC 75/18, paras.11.15 to 11.17 |
| 1. Improve implementation | 1.5 | Non-exhaustive list of obligations under instruments relevant to the IMO Instruments Implementation Code (III Code) | Annual | MSC / MEPC | III | | Completed | | MEPC 75/18, para. 11.11 |
| 1. Improve implementation | 1.7 | Identify thematic priorities within the area of maritime safety and security, marine environmental protection, facilitation of maritime traffic and maritime legislation | Annual | TCC | MSC / MEPC / FAL / LEG | | Completed | | MEPC 75/18, section 12 |
| 1. Improve implementation | 1.9 | Report on activities within the ITCP related to the OPRC Convention and the OPRC-HNS Protocol | Annual | TCC | MEPC | | Completed | | MEPC 75/18, section 12 |

| MARINE ENVIRONMENT PROTECTION COMMITTEE (MEPC) | | | | | | | | | |
|---|---------------|---|------------------------|-----------------|---------------------|--------------------|-----------------------------|-----------------------------|--|
| Reference to SD, if applicable | Output number | Description | Target completion year | Parent organ(s) | Associated organ(s) | Coordinating organ | Status of output for Year 1 | Status of output for Year 2 | References |
| 1. Improve implementation | 1.11 | Measures to harmonize port State control (PSC) activities and procedures worldwide | Continuous | MSC / MEPC | HTW / PPR / NCSR | III | Ongoing | | MEPC 75/18, paras. 11.10 and 11.11 |
| 1. Improve implementation | 1.12 | Review of the 2015 Guidelines for exhaust gas cleaning systems (resolution MEPC.259(68)) | 2020 | MEPC | PPR | | Postponed | | PPR 7/22, section 11; MEPC 75/18, para. 10.35 |
| Note: PPR 7 had agreed the draft MEPC resolution and MEPC 75 agreed to defer the consideration of the draft MEPC resolution to MEPC 76 with a view to adoption, thus extending the TCY to 2021. | | | | | | | | | |
| 1. Improve implementation | 1.13 | Review of mandatory requirements in the SOLAS, MARPOL and Load Line Conventions and the IBC and IGC Codes regarding watertight doors on cargo ships | 2021 | MSC / MEPC | CCC | SDC | In progress | | MSC 102/24, para. 17.28 |
| 1. Improve implementation | 1.14 | Revised guidance on ballast water sampling and analysis | 2021 | MEPC | PPR | | Completed | | MEPC 74/18, para. 4.36; PPR 7/22, section 5; and MEPC 75/18, paras. 10.27 to 10.28 |
| 1. Improve implementation | 1.15 | Revised guidance on methodologies that may be used for enumerating viable organisms | 2021 | MEPC | PPR | | In progress | | MEPC 74/17, para. 14.25; PPR 7/22, section 5; and MEPC 75.18, para 14.2.2 |

| MARINE ENVIRONMENT PROTECTION COMMITTEE (MEPC) | | | | | | | | | |
|---|---------------|--|------------------------|-----------------|---------------------|--------------------|-----------------------------|-----------------------------|---|
| Reference to SD, if applicable | Output number | Description | Target completion year | Parent organ(s) | Associated organ(s) | Coordinating organ | Status of output for Year 1 | Status of output for Year 2 | References |
| 1. Improve implementation | 1.17 | Development of guidelines for onboard sampling of fuel oil not in-use by the ship | 2020 | MEPC | PPR | | Completed | | MEPC 74/18, paras. 5.57 to 5.59; PPR 7/22, section 9; and MEPC 75/18, paras. 10.22 to 10.24 |
| Note: PPR 7 agreed to change the title of the Guidelines to "Guidelines for onboard sampling of fuel oil intended to be used or carried for use on board a ship" (PPR 7/22, para. 9.8), which was further approved by MEPC 75. | | | | | | | | | |
| 1. Improve implementation | 1.18 | Measures to ensure quality of fuel oil for use on board ships | 2021 | MEPC | | | In progress | | MEPC 74/18, section 5; and MEPC 75/18, section 5 |
| 1. Improve implementation | 1.21 | Review of the 2011 Guidelines for the control and management of ships' biofouling to minimize the transfer of invasive aquatic species (resolution MEPC.207(62)) | 2021 | MEPC | | | In progress | | MEPC 72/17, para. 15.8; and PPR 7/22, section 7 |
| 1. Improve implementation | 1.23 | Evaluation and harmonization of rules and guidance on the discharge of liquid effluents from EGCS into waters, including conditions and areas | 2021 | MEPC | | | In progress | | MEPC 74/18, para. 14.11; PPR 7/22, section 12; and MEPC 75/18, para. 10.35 |
| Note: PPR 7 agreed to revise the title to "Evaluation and harmonization of rules and guidance on the discharge of discharge water from EGCS into the aquatic environment", subject to approval by MEPC 76 (PPR 7/22, paras. 12.12 and 22.21). | | | | | | | | | |

| MARINE ENVIRONMENT PROTECTION COMMITTEE (MEPC) | | | | | | | | | |
|--|---------------|--|------------------------|-----------------|---------------------|--------------------|-----------------------------|-----------------------------|--|
| Reference to SD, if applicable | Output number | Description | Target completion year | Parent organ(s) | Associated organ(s) | Coordinating organ | Status of output for Year 1 | Status of output for Year 2 | References |
| 1. Improve implementation | 1.24 | Review of the BWM Convention based on data gathered in the experience-building phase | 2023 | MEPC | | | In progress | | MEPC 74/18, paras. 4.2 to 4.6 and 4.52 |
| 1. Improve implementation | 1.25 | Urgent measures emanating from issues identified during the experience-building phase of the BWM Convention | 2023 | MEPC | | | In progress | | MEPC 74/18, paras. 4.27 and 4.60; and MEPC 75/18, para. 4.19 |
| 1. Improve implementation | 1.26 | Revision of MARPOL Annex IV and associated guidelines to introduce provisions for record-keeping and measures to confirm the lifetime performance of sewage treatment plants | 2021 | MEPC | III / HTW | PPR | In progress | | MEPC 74/18, paras 14.2 to 14.7; and PPR 7/22, section 16 |
| 1. Improve implementation | 1.33 | Development of training provisions for seafarers related to the BWM Convention | 2021 | MEPC | HTW | | In progress | | MEPC 73/19, para. 15.10.1 |
| 1. Improve implementation | 1.35 | Review the Model Agreement for the authorization of recognized organizations acting on behalf of the Administration | 2021 | MSC / MEPC | III | | In progress | | MSC 102/24, para. 14.8; and MEPC 75/18, paras. 11.12 and 11.14 |

| MARINE ENVIRONMENT PROTECTION COMMITTEE (MEPC) | | | | | | | | | |
|---|---------------|---|------------------------|-----------------|---------------------|--------------------|-----------------------------|-----------------------------|---|
| Reference to SD, if applicable | Output number | Description | Target completion year | Parent organ(s) | Associated organ(s) | Coordinating organ | Status of output for Year 1 | Status of output for Year 2 | References |
| 1. Improve implementation | 1... | Review of the Model Agreement for the authorization of recognized organizations acting on behalf of the Administration | 2020 | MSC / MEPC | III | | Postponed | | MSC 102/24, paras. 21.2 and 21.3 |
| Note: The above output had the number OW 38. However, MSC 102 agreed to relocate it to Strategic Direction 1 and invited the Council to endorse this decision. | | | | | | | | | |
| 2. Integrate new and advancing technologies in the regulatory framework | 2.2 | Approved ballast water management systems which make use of Active Substances, taking into account recommendations of GESAMP-BWWG | Annual | MEPC | | | Completed | | MEPC 75/18, section 4 |
| 2. Integrate new and advancing technologies in the regulatory framework | 2.13 | Review of the IBTS Guidelines and amendments to the IOPP Certificate and Oil Record Book | 2020 | MEPC | PPR | | Postponed | | MEPC 74/18, par. 14.25; PPR 7/22, section 16; and MEPC 75/18, para. 10.35 |
| Note: MEPC 75 agreed to defer consideration of the two draft MEPC circulars and the draft amendments (PPR 7/22/Add.1, annexes 13, 14 and 15) to MEPC 76, thus the TCY being extended to 2021. | | | | | | | | | |
| 2. Integrate new and advancing technologies in the regulatory framework | 2.14 | Amendments to regulation 14 of MARPOL Annex VI to require a dedicated sampling point for fuel oil | 2020 | MEPC | | | Completed | | MEPC 75/18, sections 3 and 5 |

| MARINE ENVIRONMENT PROTECTION COMMITTEE (MEPC) | | | | | | | | | |
|---|---------------|---|------------------------|-----------------|---------------------|--------------------|-----------------------------|-----------------------------|--|
| Reference to SD, if applicable | Output number | Description | Target completion year | Parent organ(s) | Associated organ(s) | Coordinating organ | Status of output for Year 1 | Status of output for Year 2 | References |
| 2. Integrate new and advancing technologies in the regulatory framework | 2.15 | Development of amendments to MARPOL Annex VI and the NO _x Technical Code on the use of multiple engine operational profiles for a marine diesel engine | 2021 | MEPC | PPR | | In progress | | PPR 7/22, section 13; and MEPC 75/18, para 14.2.2 |
| 2. Integrate new and advancing technologies in the regulatory framework | 2.17 | Consideration of development of goal-based ship construction standards for all ship types | 2021 | MSC / MEPC | | | No work requested by MSC | | MSC 102/24, section 7 |
| 2. Integrate new and advancing technologies in the regulatory framework | 2.18 | Standards for shipboard gasification of waste systems and associated amendments to regulation 16 of MARPOL Annex VI | 2020 | MEPC | PPR | | Extended | | MEPC 70/17, para. 15.17; PPR 5/24, section 8; MEPC 72/17, para. 15; PPR 7/22, section 10; and MEPC 75/18, para. 14.1 |
| Note: MEPC 75 agreed to extend the TCY of output 2.18 to 2021, as requested by PPR 7. | | | | | | | | | |
| 2. Integrate new and advancing technologies in the regulatory framework | 2.19 | Amendment of Annex 1 to the AFS Convention to include controls on cybutryne, and consequential revision of relevant guidelines | 2020 | MEPC | PPR | | Extended | | MEPC 71/17, paragraph 14.3; PPR 5/24, section 19 and para. 24.2.25; MEPC 73/19, paras. 15.12 to 15.15; |

| MARINE ENVIRONMENT PROTECTION COMMITTEE (MEPC) | | | | | | | | | |
|--|---------------|--|------------------------|-----------------|---------------------|--------------------|-----------------------------|-----------------------------|--|
| Reference to SD, if applicable | Output number | Description | Target completion year | Parent organ(s) | Associated organ(s) | Coordinating organ | Status of output for Year 1 | Status of output for Year 2 | References |
| | | | | | | | | | PPR 6/20, section 6; MEPC 74/18, paras. 10.19 and 10.20; PPR 7/22, section 6; and MEPC 75/18, paras. 10.14 to 10.21 and 14.1 |
| Note: MEPC 75 agreed to extend the target completion year of output 2.19 to 2022 and approve the change of title of the output to "Revision of guidelines associated with the AFS Convention as a consequence of the introduction of controls on cybutryne", as requested by PPR 7. | | | | | | | | | |
| 2. Integrate new and advancing technologies in the regulatory framework | 2... | Development of an operational guide on the response to spills of Hazardous and Noxious Substances (HNS) | 2022 | MEPC | PPR | | In progress | | MEPC 74/18, para. 14.20 and MEPC 75/18, paras. 14.1 and 14.2.2 |
| Note: MEPC 75 agreed to move the above output from the post-biennial agenda of MEPC to the biennial agenda of PPR with a TCY of 2022, as requested by PPR 7. However, MEPC 75 approved a reduced provisional agenda for PPR 8, which does not include this output. Consequently, PPR 8 will consider including the output in its provisional agenda for PPR 9 and adjust the target completion year accordingly. | | | | | | | | | |
| 3. Respond to climate change | 3.1 | Treatment of ozone-depleting substances used by ships | Annual | MEPC | | | Completed | | MEPC 74/18, paras. 5.75 and 5.76 |
| 3. Respond to climate change | 3.2 | Further development of mechanisms needed to achieve the limitation or reduction of CO ₂ emissions from international shipping | Annual | MEPC | | | Completed | | MEPC 74/18, sections 6 and 7; and MEPC 75/18, sections 6 and 7 |

| MARINE ENVIRONMENT PROTECTION COMMITTEE (MEPC) | | | | | | | | | |
|--|---------------|---|------------------------|-----------------|---------------------|--------------------|-----------------------------|-----------------------------|---|
| Reference to SD, if applicable | Output number | Description | Target completion year | Parent organ(s) | Associated organ(s) | Coordinating organ | Status of output for Year 1 | Status of output for Year 2 | References |
| 3. Respond to climate change | 3.3 | Reduction of the impact on the Arctic of emissions of black carbon from international shipping | 2021 | MEPC | PPR | | In progress | | MEPC 71/17, paragraph 5.3; PPR 5/24, section 7 and para. 24.2.7; MEPC 73/19, paragraph 5.3; PPR 6/20, section 7; MEPC 74/18, para. 5.67; PPR 7/22, section 8; and MEPC 75/18, para. 10.35 |
| 3. Respond to climate change | 3.4 | Promotion of technical cooperation and transfer of technology relating to the improvement of energy efficiency of ships | 2021 | MEPC | | | In progress | | MEPC 74/18, sections 7 and 12; and MEPC 75/18, sections 7 and 12 |
| 3. Respond to climate change | 3.5 | Revision of guidelines concerning EEDI and SEEMP | 2021 | MEPC | | | In progress | | MEPC 75/18, sections 6 and 7 |
| 3. Respond to climate change | 3.6 | EEDI reviews required under regulation 21.6 of MARPOL Annex VI | 2021 | MEPC | | | In progress | | MEPC 75/18, section 3 and para. 6.4 |
| 3. Respond to climate change | 3.7 | Further technical and operational measures for enhancing the energy efficiency of international shipping | 2021 | MEPC | | | In progress | | MEPC 75/18, sections 3 and 6 |

| MARINE ENVIRONMENT PROTECTION COMMITTEE (MEPC) | | | | | | | | | |
|--|---------------|---|------------------------|------------------------|------------------------------------|--------------------|-----------------------------|-----------------------------|--|
| Reference to SD, if applicable | Output number | Description | Target completion year | Parent organ(s) | Associated organ(s) | Coordinating organ | Status of output for Year 1 | Status of output for Year 2 | References |
| 4. Engage in ocean governance | 4.1 | Identification and protection of Special Areas, ECAs and PSSAs | Continuous | MEPC | NCSR | | Ongoing | | MEPC 75/18, section 9 |
| 4. Engage in ocean governance | 4.2 | Input to the ITCP on emerging issues relating to sustainable development and achievement of the SDGs | Continuous | TCC | MSC / MEPC / FAL / LEG | | Ongoing | | MEPC 75/18, section 12 |
| 4. Engage in ocean governance | 4.3 | Follow-up work emanating from the Action Plan to address marine plastic litter from ships | 2021 | MEPC | PPR / III / HTW | | In progress | | MEPC 72/17, paragraphs 15.2 to 15.6; MEPC 73/19, section 8 and annex 10; MEPC 74/18, paragraph 8.37.1; PPR 7/22, section 17; and MEPC 75/18, section 8 |
| 6. Ensure regulatory effectiveness | 6.1 | Unified interpretation of provisions of IMO safety, security, environment, facilitation, liability and compensation-related conventions | Continuous | MSC / MEPC / FAL / LEG | III / PPR / CCC / SDC / SSE / NCSR | | Ongoing | | PPR 7/22 section 18; and MEPC 75/18, paras. 10.34 and 10.35 |
| 6. Ensure regulatory effectiveness | 6.3 | Safety and pollution hazards of chemicals and preparation of consequential amendments to the IBC Code | Continuous | MEPC | PPR | | Ongoing | | PPR 7/22, section 3; and MEPC 75/18, paras. 10.3 to 10.12 |

| MARINE ENVIRONMENT PROTECTION COMMITTEE (MEPC) | | | | | | | | | |
|---|---------------|---|------------------------|-----------------|------------------------------------|--------------------|-----------------------------|-----------------------------|---|
| Reference to SD, if applicable | Output number | Description | Target completion year | Parent organ(s) | Associated organ(s) | Coordinating organ | Status of output for Year 1 | Status of output for Year 2 | References |
| 6. Ensure regulatory effectiveness | 6.4 | Lessons learned and safety issues identified from the analysis of marine safety investigation reports | Annual | MSC / MEPC | III | | Completed | | III 6/15, section 4 |
| 6. Ensure regulatory effectiveness | 6.5 | Identified issues relating to the implementation of IMO instruments from the analysis of PSC data | Annual | MSC / MEPC | III | | Completed | | III 6/15, section 6 |
| 6. Ensure regulatory effectiveness | 6.7 | Consideration and analysis of reports on alleged inadequacy of port reception facilities | Annual | MEPC | III | | Completed | | III 6/15, section 3 |
| 6. Ensure regulatory effectiveness | 6.8 | Monitoring the worldwide average sulphur content of fuel oils supplied for use on board ships | Annual | MEPC | | | Completed | | MEPC 74/18, paras. 5.52 to 5.56; and MEPC 75/18, paras. 5.1 to 5.5 |
| 6. Ensure regulatory effectiveness | 6.11 | Development of measures to reduce risks of use and carriage of heavy fuel oil as fuel by ships in Arctic waters | 2020 | PPR | | | Extended | | MEPC 74/18, paragraphs 10.22 to 10.25; PPR 7/22, section 14; and MEPC 75/18, paras. 10.29 to 10.33 and 14.1 |
| Note: MEPC 75 approved the draft amendments to MARPOL Annex I (prohibition on the use and carriage for use as fuel of heavy fuel oil by ships in Arctic waters), with a view to adoption by MEPC 76, and the extension of the TCY of this output to 2021. | | | | | | | | | |
| 6. Ensure regulatory effectiveness | 6.15 | Role of the human element | Continuous | MSC / MEPC | III / PPR / CCC / SDC / SSE / NCSR | HTW | No work requested | | |

| MARINE ENVIRONMENT PROTECTION COMMITTEE (MEPC) | | | | | | | | | |
|--|---------------|---|------------------------|-----------------|------------------------------|--------------------|-----------------------------|-----------------------------|--|
| Reference to SD, if applicable | Output number | Description | Target completion year | Parent organ(s) | Associated organ(s) | Coordinating organ | Status of output for Year 1 | Status of output for Year 2 | References |
| 6. Ensure regulatory effectiveness | 6.30 | Updated Survey Guidelines under the Harmonized System of Survey and Certification (HSSC) | Annual | MSC / MEPC | III | | Completed | | III 6/15, section 8; and MEPC 75/18, paras. 10.26, 11.11 and 11.19 |
| 6. Ensure regulatory effectiveness | 6.31 | Consideration of reports of incidents involving dangerous goods or marine pollutants in packaged form on board ships or in port areas | Annual | MSC / MEPC | III | CCC | Completed | | CCC 6/14, section 9 |
| 6. Ensure regulatory effectiveness | 6... | Consideration of reports of incidents involving dangerous goods or marine pollutants in packaged form on board ships or in port areas | Annual | MSC / MEPC | III | CCC | No work requested | | MSC 102/24, paras. 21.2 and 21.3 |
| Note: The above output had the number OW 19. However, MSC 102 agreed to relocate it to strategic direction 7 and invited the Council to endorse this decision. | | | | | | | | | |
| 7. Ensure organizational effectiveness | 7.1 | Endorsed proposals for the development, maintenance and enhancement of information systems and related guidance (GISIS, websites, etc.) | Continuous | Council | MSC / MEPC / FAL / LEG / TCC | | Ongoing | | MEPC 75/18, para. 16.7 |
| 7. Ensure organizational effectiveness | 7.3 | Analysis and consideration of reports on partnership arrangements for, and implementation of, environmental programmes | Annual | TCC | MEPC | | Completed | | MEPC 75/18, section 12 |
| 7. Ensure organizational effectiveness | 7.9 | Revised documents on organization and method of work, as appropriate | 2021 | Council | MSC / FAL / LEG / TCC / MEPC | | In progress | | MEPC 75/18, section 15 |

| MARINE ENVIRONMENT PROTECTION COMMITTEE (MEPC) | | | | | | | | | |
|--|---------------|---|------------------------|-----------------|------------------------------|--------------------|-----------------------------|-----------------------------|-------------------------------------|
| Reference to SD, if applicable | Output number | Description | Target completion year | Parent organ(s) | Associated organ(s) | Coordinating organ | Status of output for Year 1 | Status of output for Year 2 | References |
| OW. Other work | OW.13 | Endorsed proposals for new outputs for the 2020-2021 biennium as accepted by the Committees | Annual | Council | MSC / MEPC / FAL / LEG / TCC | | Postponed | | MEPC 75/18, section 14.11 |
| OW. Other work | OW.23 | Cooperate with the United Nations on matters of mutual interest, as well as provide relevant input/guidance | 2021 | Assembly | MSC / MEPC / FAL / LEG / TCC | Council | In progress | | MEPC 75/18, paras. 7.3, 7.4 and 8.1 |
| OW. Other work | OW.24 | Cooperate with other international bodies on matters of mutual interest, as well as provide relevant input/guidance | 2021 | Assembly | MSC / MEPC / FAL / LEG / TCC | Council | In progress | | MEPC 75/18, sections 7 and 12 |

ANNEX 13

POST-BIENNIAL AGENDA OF MEPC

| MARINE ENVIRONMENT PROTECTION COMMITTEE (MEPC) | | | | | | | | |
|--|-----------|---|--|-----------------|---------------------|--------------------|------------|-------------------------|
| ACCEPTED POST-BIENNIAL OUTPUTS | | | | Parent organ(s) | Associated organ(s) | Coordinating organ | Timescale | Reference |
| No. | Biennium* | Reference to strategic direction, if applicable | Description | | | | | |
| 1 | 2016-2017 | 6. Ensure regulatory effectiveness | Development of amendments to regulation 19 of MARPOL Annex VI and development of an associated Exemption Certificate for the exemption of ships not normally engaged on international voyages | MEPC | III | | 2 sessions | MEPC 71/17, par.14.15 |
| 2 | 2018-2019 | 6. Ensure regulatory effectiveness | Development of necessary amendments to MARPOL Annexes I, II, IV, V and VI to allow States with ports in the Arctic region to enter into regional arrangements for port reception facilities (PRFs) | MEPC | PPR | | 2 sessions | MEPC 74/18, para. 14.18 |
| 3 | 2012-2013 | Other work | Recommendations related to navigational sonar on crude oil tankers | MSC / MEPC | SDC | | 1 session | MSC 91/22, para. 19.23 |

* Biennium when the output was placed on the post-biennial agenda.

ANNEX 14

ITEMS TO BE INCLUDED IN THE AGENDA OF MEPC 76

| No.* | Item |
|-------------|---|
| 1 | Adoption of the agenda |
| 2 | Decisions of other bodies |
| 3 | Consideration and adoption of amendments to mandatory instruments (DG) |
| 4 | Harmful aquatic organisms in ballast water |
| 5 | Air pollution prevention |
| 6 | Energy efficiency of ships |
| 7 | Reduction of GHG emissions from ships |
| 8 | Follow-up work emanating from the Action Plan to Address Marine Plastic Litter from Ships |
| 9 | Pollution prevention and response |
| 10 | Reports of other sub-committees |
| 11 | Technical cooperation activities for the protection of the marine environment |
| 12 | Work programme of the Committee and subsidiary bodies |
| 13 | Any other business |
| 14 | Consideration of the report of the Committee |

* The numbering may not correspond to the number of the agenda item in the forthcoming session.

ANNEX 15**SECRETARY-GENERAL'S REMARKS ON THE FSO SAFER UNDER AGENDA ITEM 1
AND ON THE APPROVAL OF THE DRAFT AMENDMENTS TO MARPOL ANNEX VI
UNDER AGENDA ITEM 7****ITEM 1****Secretary-General's remarks on the FSO SAFER**

"Thank you, Mr. Chair,

With respect to FSO Safer, first of all, I would like to thank the distinguished delegates for their interventions and for highlighting the issue to this Committee. I will introduce briefly actions taken by IMO to date on the issue:

- 1) The Secretariat has been fully engaged in this issue since last year, focusing on contingency planning in case of a spill from **FSO SAFER**, while collaborating with other UN Agencies, the Authorities in Yemen, the Regional Organization for the Conservation of the Environment of the Red Sea & Gulf of Aden (PERSGA) and the neighbouring littoral Countries, regarding measures to prevent potential catastrophic environmental damage in the event of a spill or explosion from the FSO.
- 2) UN Secretary General Guterres, in August 2020, organized an Inter-agency strategic meeting on the issue, where all related elements including safety, oil pollution and communication were considered. I myself attended the meeting and expressed possible concerns and suggestions on specific matters related to safety and environmental protection.
- 3) In recognition of the importance of this issue, I have established an IMO Inter-Divisional Task Force that has been considering the full breadth of elements related to FSO SAFER, including safety, operations response, legal analysis and financial matters.
- 4) IMO also plans to organize a series of technical cooperation activities to support the relevant Authorities and personnel concerned.
- 5) I have listened to your interventions and requests, there are considerable issues to be further deliberated upon. As you might recognise, the **FSO Safer** situation is complex going beyond technical measures and there are key policy aspects including the scope of IMO's engagement within the UN system. I will make a separate comprehensive presentation on the issue in the near future and seek advice from you on further actions to be taken by this Organization.

Thank you."

ITEM 7

**Secretary-General's remarks on the approval of the draft amendments
to MARPOL Annex VI**

"Thank you, Mr. Chair,

Allow me to congratulate the Committee on the approval of the short-term measures, which will ensure that IMO remains firmly on track with the implementation of our Initial IMO GHG Strategy, despite the considerable challenges posed by the COVID-19 pandemic.

The approval of these measures by the Committee represents your collective commitment to reducing carbon intensity of ships by at least 40% by 2030, compared to 2008, in line with the Initial Strategy.

The goal of the measures is clear, and the combination of the goal-based technical and operational approach allows for flexibility for Member States and ship owners to choose how they wish to achieve the carbon intensity reduction targets.

The EEXI will largely align the energy efficiency requirements for existing ships with the EEDI standards for new build ships, whilst the carbon intensity indicator with the rating mechanism is a promising new concept.

Considerable further work on the implementation of the short-term measure is still ahead of us, but I am confident that, as you have demonstrated IMO's spirit of cooperation during the past months, swift progress with the development of technical guidelines and a Carbon Intensity Code can be made. The essential further work on the comprehensive assessment of impacts of the measures on developing countries, SIDs and LDCs will also be carried out to complement the measures.

Distinguished delegates,

I understand that the set of amendments to MARPOL Annex VI approved today represents a compromise that was the outcome of long and challenging discussions.

But let us remain united in working towards a truly global regulatory framework that implements the Initial GHG Strategy. The approved amendments provide important building blocks. Without this, future discussions on mid- and long-term measures cannot be possible. We need collective efforts to decarbonize international maritime transport.

I am proud of the accomplishment of our IMO family. While international shipping emits about 2% of the global green-house gases, shipping carries more than 80% of goods globally, which makes shipping the most efficient transport mode. Today we approved mandatory measures to ensure a 40% reduction of carbon intensity by 2030, as we promised two years ago. Congratulations to us all.

Thank you."

ANNEX 16**STATEMENTS BY DELEGATIONS AND OBSERVERS*****ITEM 1****Statement by the delegation of France**

"Chair,

France, Germany, the Netherlands, Saudi Arabia and the United Kingdom wish to make the following declaration:

The deteriorating condition of the FSO Safer oil storage and offloading unit, which has been anchored off Ras Issa, Yemen, since 2015 with a cargo of more than one million barrels of crude oil on board, is a threat to the environment, and to the health and livelihoods of millions of people in a country already suffering from a large-scale humanitarian disaster. The members of the United Nations Security Council expressed their unanimous concern on July 15. The dilapidated condition of the FSO Safer presents a risk of an oil spill on an unprecedented scale. Every effort should therefore be made to enable the deployment of the UN mandated inspection mission, which depends on the agreement of the Houthis, to avoid the ecological and humanitarian disaster feared by the current condition of the FSO Safer.

We therefore call on IMO member states to take action to prevent such a disaster. We also invite the Secretariat to use its expertise to advise the States and the various United Nations agencies involved in this matter. All useful means must be identified to assess the situation, secure the oil installation, and prepare the operations to eliminate this danger once and for all.

Thank you, Chair."

ITEM 3**Statement by the observer from IBIA**

"IBIA has some observations and experiences to share with regards to the draft amendments to appendix VI on Verification procedures for a MARPOL Annex VI fuel oil sample which the committee is invited to consider and adopt this week.

The concept of test precision can be hard to grasp. Many find it hard to understand that a test result of 0.53% sulphur does not conclusively prove that the fuel fails to meet the 0.50% sulphur limit. However, all test methods have limitations with regards to their accuracy, with specific reproducibility and Repeatability values calculated in accordance with ISO 4259. For sulphur, the accuracy of the test method, known as 95% confidence, means that fuel oil with a true value of 0.50% sulphur may give a test result of up to 0.53% in a laboratory.

These statistically sound test precision principles have been taken into account for verifying if samples of fuel oil in use, and samples of fuel oil carried for use on board a ship, meet the relevant sulphur limits of regulation 14. This is reflected in the amendment to appendix VI under the Verification Procedure Part 2 for in-use and onboard samples. We support this

* Statements have been included in this annex as provided by delegations/observers, in the order in which they were given, sorted by agenda item, and in the language of submission (including translation into any other language if such translation was provided). Statements are accessible in all official languages on audio file at: <http://docs.imo.org/Meetings/Media.aspx>

wholeheartedly. We remain concerned, however, that the same principles are not recognised for the MARPOL delivered sample, which will significantly increase the risk that a fuel oil that is actually compliant with MARPOL sulphur limits can, on the basis of testing by one laboratory, be deemed as having failed to meet the requirement. These concerns were laid out in detail in MEPC 74/10/11 by IPIECA and IBIA.

We have always feared that the complexity in having different approaches to sulphur verification for MARPOL delivered samples versus in-use and onboard samples would cause unintended confusion and conflict. Experience so far suggests that this is indeed the case.

Since the 0.50% sulphur limit took effect, there have been cases of ships that have received a test result on their own bunker manifold inlet sample indicating a sulphur content above 0.50%, but not above 0.53%. Ships may have documented such test results as indicative of a potential non-compliance through a notification to its flag administration. Copies of the notification may also be sent to authorities at its next port of call, and the Administration under whose jurisdiction the bunker supplier is located, and to the bunker supplier.

We have heard from our members that some flag states have been advising ships to not use the fuel if the ship has a test result from its own sample indicating potential non-compliance, e.g. 0.51% to 0.53% sulphur. There are also fears that port State authorities will not take 95% confidence into account for in-use and on-board samples. This has created a lot of problems and uncertainty for the shipping and fuel oil supply industries, including demands to debunker fuels which have not been proven as non-compliant by the appropriate verification procedures stipulated under MARPOL Annex VI. Debunking is not a trivial matter. Apart from substantial financial costs, it also carries an environmental cost through extra CO₂ emissions, and represents safety and environmental risks.

IMO guidelines for consistent implementation of the 0.50% sulphur limit, and the revision of appendix VI of MARPOL Annex VI, make it absolutely clear that the 95% confidence principle for test precision should be applied to in-use and onboard samples. This principle was sufficiently important to prompt this committee to agree, at MEPC 74, to issue a circular, MEPC.1/Circ.882, inviting Member Governments to apply approved amendments to MARPOL Annex VI related to the verification procedure for a MARPOL Annex VI fuel oil sample in advance of their entry into force, in order to "ensure a consistent approach to verifying the sulphur limit of the fuel oil delivered to, in-use or carried for use on board a ship until the entry into force of the approved amendments."

A consistent approach does not appear to be happening. It really, really needs to happen.

Let me be very clear about the expectations on suppliers: no fuel should be put on the market if it has tested above the limit even by a fraction prior to delivery, and the blend target to meet the 0.50% sulphur limit during production should be no more than 0.47%, in line with best practice guidance.

However, when it comes to sulphur verification under appendix VI of MARPOL Annex VI, having two different procedures will inevitably cause confusion in how the regulation is understood and applied. The signals are confusing. We all know the meaning of green and red traffic lights, but yellow seems to mean "keep going" for one type of samples and "stop" for another.

We need to make sure everybody understands that as far as the ship is concerned, a yellow signal means "keep going". We believe this is enshrined in the amendments to appendix VI that are up for adoption and as such urge Member States to apply these amendments prior to entry into force.

Furthermore, we would recommend making the following principles clear: If an authority decides to test the MARPOL delivered sample, it will determine whether the fuel as delivered meets the relevant requirement. If the fuel tests above 0.50% sulphur and as such has not met the requirement as delivered, it should nevertheless be considered as having met the requirement for the ship to use, or carry for use, unless the test result exceeds 0.53% sulphur. This would be in line with the MARPOL Annex VI sulphur verification procedure for in-use and onboard samples.

We believe these issues needed to be brought to the Committee's attention, and that they demonstrate the need for further IMO guidance to bring clarity on how to determine compliance for all parties concerned."

ITEM 5

Statement by the observer from ICOMIA

"Document MEPC 75/INF.27 submitted by ICOMIA in January 2020, ahead of the originally planned MEPC 75 meeting, further highlights the engineering and development challenges faced by large yacht builders as they prepare for compliance with the NO_x Tier III limits for engines installed in models >24m load-line length, below 500 GT. Suitable engines which meet these limits continue to be unavailable for this recreational application and that, because of this delay, the necessary sea-trialling and testing needed for safety will make it unlikely for the full portfolio of engines and vessels to comply well beyond the January 2021 NO_x Tier III implementation date.

Document MEPC 75/INF.28 submitted by the United States further supplements this information paper and explains that despite steadfast progress by boat builders and engine manufacturers during the COVID-19 pandemic shut-downs, these issues are expected to remain obstacles to the manufacture of these vessels for the for a number of years past the implementation date. A 3-year extension of the current delay for yachts >24m load-line length, below 500 GT would allow for NO_x Tier III abatement technology to be fully tested and made available for all models and overcome any issues in a way that would optimize the physical and operational characteristics for use on recreational yachts.

Further actions that the large yacht industry is taking have been outlined in item 14 of document MEPC 75/INF.28.

ICOMIA believes it must be in the interest of legislators to come up with viable rules, which our research and every piece of input into IMO consistently done over the last years demonstrates yet has to be achieved. While it is in the nature of INF papers not to propose amendments to the regulations, we now have reached a case where a regulation is imminent with no standard product available to the marine leisure sector to comply.

Without suitable engines available in critical power bands, the matter is of particular time-sensitivity to us and we need the help of IMO to cross a period until the compliant product becomes available.

We therefore strongly request the matter to be discussed at this meeting."

ITEM 7

Statement by the delegation of Kenya

"Mr Chair, Distinguished Delegates,

This delegation thanks the Working Group for paper MEPC 75/7/2. We note the impressive progress made and register our satisfaction in this regard.

This delegation also notes the major contribution of MTCCs and the GMN network to the progress of the IMO initiatives and the work towards reducing GHG emission from ships. The MTCCs have already formed strong networks and are leading the development of technical expertise in and among the developing countries.

Through the activities and various workshops hosted by the various MTCCs as well as joint activities through the GMN, an increased awareness on the contribution of shipping to GHG emission, and the need for urgent actions towards the mitigation of the contribution, has been made possible among both Government officials as well as the general public.

Mr Chairman, Distinguished Delegates, The Global Maritime Network (GMN) is actually captured in the IMO GHG Strategy as an important initiative in accelerating the adoption of low-carbon technologies and promoting research in reduction of greenhouse gas emissions in the maritime and shipping industry.

We therefore hope that there will be a possibility for the MTCC and GMN project to be continued, to the benefit of the small Island developing states and developing states. The continuation of this very important initiative is crucial to ensure developing countries especially the least developing countries and the small island developing states build the capacity necessary to implement the measures identified in these meetings.

This delegation wishes to express its gratitude to the European Union for funding the GMN project. We further wish to encourage other donors and especially the EU to continue in funding a Phase 2 of the GMN/MTCC Project so as not to lose the momentum of the gains so far achieved in efforts to mitigate adverse impact of climate change from the maritime industry. Such support for a 2nd phase would help to put in place the necessary structures to achieve the end goal, through a tested GMN/MTCC framework.

As I conclude I wish to request that Kenya's statement in this regard be appended to the report. We shall be sending a copy of the same to the Secretariat.

Thank you, Mr Chair."

Statement by the delegation of Argentina

"Señor Presidente,

La Argentina reconoce al Presidente del Grupo de Trabajo sobre GHG, Sr. Sveinung Oftedal (Noruega) por su excelente conducción de la 7ª sesión, que conllevó enormes esfuerzos para lograr dar forma a la medida de corto plazo combinada que el Comité tiene hoy ante sí. También quisiéramos reconocer el esfuerzo de las delegaciones.

La Argentina apoya la aprobación del proyecto de media de corto plazo combinada como proyecto de enmienda al Anexo VI de MARPOL, porque continúa comprometida con los niveles de ambición de la Estrategia Inicial de la OMI. No es un acuerdo ideal por distintas razones, pero es el primer paso en un largo camino que debemos caminar juntos para asegurar la reducción de gases efecto invernadero.

El texto que el Comité tiene ante sí es el producto de flexibilidad constructiva y compromiso para alcanzar un objetivo común. Ese es el espíritu en el que varias delegaciones trabajaron

para producir una única propuesta (conocida como "documento 26") que combinaba las medidas técnicas y las operacionales. Ella fue la base de la medida combinada de corto plazo.

Esa propuesta fue presentada sin una evaluación de impacto inicial de parte de los proponentes, como parte de la propuesta, como correspondía conforme MEPC.1/Circ. 885. No obstante, ello, y con el fin de permitir la adopción de la medida de corto plazo, numerosos países, incluida la Argentina, aceptaron un enfoque creativo que ofreció una salida para poder adoptar la medida en el MEPC 76: que un tercero lleve a cabo una evaluación de impacto sobre los Estados, en particular los países en desarrollo. Para ello, también este Comité deberá adoptar los términos de referencia elaborados por el Grupo de Trabajo. Cabe ahora a UNCTAD una notable responsabilidad, pero confiamos en UNCTAD, en el el Comité de Conducción y en los Estados que aporten información relevante para que esa evaluación sea, verdaderamente, comprensiva. Ello es crucial para proteger los intereses de los Estados que están distantes de los grandes centros de producción y consumo, en particular los países en desarrollo, porque las medidas que adoptemos están, como indica la Estrategia Inicial, dentro del contexto de UNFCCC. Ello incluye los principios de UNFCCC, en particular el de responsabilidades comunes pero diferenciadas (art. 3.1) y el principio de que las medidas adoptadas para combatir el cambio climático no deben afectar el comercio internacional (art. 3.5).

Numerosos países que podrían verse afectados por la medida hemos sido particularmente constructivos respecto de los Términos de Referencia para la evaluación comprensiva de la medida de corto plazo. El Procedimiento para la Evaluación de los Impactos de las Posibles Medidas en los Estados (Circular MEPC.1/Circ. 885) dispone que de existir impactos negativos desproporcionados, éstos deben ser abordados antes de que se considere la adopción de la medida. La Argentina espera que, con los Términos de Referencia, los impactos negativos que sean identificados sean abordados para subsanarlos o mitigarlos, y entiende que esos impactos deben ser parte integrante de la revisión prevista para 2026, porque de éstos deberían también ser evitados, como dispone el párrafo 15.3 de dicha Circular. En ese sentido, cabe entender que la revisión prevista en la medida de corto debe incluir los impactos sobre los Estados conforme lo previsto en los Términos de Referencia, en la Estrategia Inicial y en la MEPC.1/Circ. 885.

Hay un aspecto específico de los Términos de Referencia al que mi delegación debe hacer mención. Se trata del párrafo 3.3. Dicho párrafo fue objeto de un ajuste "editorial" que, en realidad, modificó parcialmente su sentido. La Argentina desea dejar aclarado su entendido de que así como no se requerirá a UNCTAD llevar a cabo una evaluación específica sobre el impacto de la pandemia en los países, dicho impacto, que ha sido desproporcionadamente negativo en los países en desarrollo, será un elemento a tener en cuenta en la evaluación comprensiva del impacto de la medida.

Señor Presidente, la medida de corto plazo y los términos de referencia para la evaluación comprensiva de impacto fueron abordados como paquete en el Grupo de Trabajo y creemos que deben ser concebidas de la misma manera en este Comité, porque ello permitirá adoptar ambos, y dar el primer paso de la organización en el cumplimiento de nuestras metas de reducción de gases efecto invernadero de buques.

Muchas gracias."

Statement by the delegation of Cook Islands

"Kia Orana Chair,

We are grateful to SG for his opening address in which he recognised the need for, the importance of, and the subsequent addressing of Impact Assessments.

We thank all members of the ISWG GHG 7, the informal meeting that preceded it and the remarkable leadership of Mr Oftedal throughout this process for the extraordinary effort they put in; this is an effort that will not be wasted.

Impact assessments ahead of MEPC 76 are important as is the mitigation of any identified negative impact on the SIDS. Let us be clear if there are increased costs in transport, these are most likely to be significant in the poorest and most remote SIDS & LDCs, due to their distance from main trading routes, high dependency on imports, and clearly already disproportionate high per capita costs, and low ability to absorb increased prices without significant welfare impacts.

The current pandemic has further highlighted our existing vulnerabilities as a SIDS, in saying that we take comfort in the draft legal text with the 22b regulation and the taking into account of a review going forward which we believe was the game changer that enabled us all to come together in achieving consensus based on compromise and we thank all those that engaged in drafting this important review clause.

In saying that you will not be surprised to hear that the Cook Islands will endorse the approval of the text at this session, we commend it to fellow delegates to go forward to MEPC 76 for adoption.

Could it have been better we suspect it might have been, however would it have been possible and achieve consensus at this stage we do not believe it would have been. We do however believe it has been a good effort and that the goodwill shown by all is something we should be satisfied with.

The Organisation has the Cook Islands Commitment to continue to engage in a positive and constructive matter in the important work ahead of the entry into force of these amendments.

Chair, going forward this is the best deal on the table and we endorse it."

Statement by the delegation of France

"Monsieur le Président,

Nous souhaitons remercier l'ensemble des délégations qui ont participé activement à ces travaux durant ces dernières années. Nous souhaitons également remercier le président du groupe de travail dont la tâche était d'une extrême complexité.

La France s'est toujours beaucoup investie dans les négociations relatives à la réduction des émissions de gaz à effets de serre, avec l'objectif de parvenir à des résultats ambitieux.

Nous avons aujourd'hui un texte de compromis, résultat de très longues négociations. Une négociation nécessite des compromis. Sans compromis nous n'aurions aucun résultat. Sans résultat les émissions du transport maritime ne feront que croître.

Le rejet, la division ne sont pas nos ambitions.

Un rejet conduirait à l'absence de mesures obligatoires en 2023 et très certainement pour encore de très longues années. Nous ne devons pas oublier que nous avons échoué par le passé dans la mise en place de mesures réellement contraignantes pour les navires existants. La résolution A963(23), qui identifiait en 2004 les mécanismes requis pour obtenir la limitation

ou la réduction des émissions de GES, ne se limitait pas qu'aux navires neufs et à l'EEDI. Nous ne souhaitons pas revenir en arrière. Notre responsabilité est d'avancer pour réduire les émissions sans délai.

Ces amendements sont absolument indispensables car pour la première fois nous allons imposer des mesures techniques et opérationnelles contraignantes à tous les plus grands navires. Réduire les conclusions de notre travail aux mesures techniques relève de la désinformation.

La France a toujours été convaincue que ce sont les outils opérationnels, CII et système de notation, qui permettront d'atteindre notre ambition en ouvrant la voie à des mesures ou actions ultérieures.

L'EEXI est une excellente impulsion technique, mais notre expérience de l'EEDI a montré qu'il est difficile d'en prévoir l'effet réel. Les outils opérationnels seront là pour mesurer et corriger les faiblesses supposées de l'EEXI. Le CII et le système de notation sont des outils innovants constituant une première étape dans la transition énergétique de la flotte mondiale. Il faut reconnaître le chemin accompli depuis l'adoption de la Stratégie Initiale il y a à peine deux ans.

Bien sûr, nous reconnaissons des faiblesses à ce compromis. Pas dans le manque d'ambition supposée, pas dans le manque de mesures opérationnelles obligatoires, mais dans la faiblesse des moyens de coercition pour les navires ayant les plus mauvaises performances. La France avait défendu des mesures d'exécution beaucoup plus contraignantes. Nous ne les avons pas obtenus.

Cependant nous aurons demain un système mondial de notation des navires. Sur cette base nous devons prendre nos responsabilités, à tous les niveaux. Etat, Organisations régionales, acteurs économiques, consommateurs, nous aurons les outils pour sanctionner les navires qui ne prendront pas la voie de la décarbonation et nous aurons les moyens de récompenser les armateurs qui prennent des risques en faisant des choix innovants.

La France prend donc ses responsabilités en approuvant ce texte de compromis. Nous devons maintenant nous engager dans les travaux de rédaction des lignes directrices pour garantir une mise en œuvre harmonisée et conforme au niveau d'ambition de la Stratégie Initiale. Enfin nous travaillerons pour réfléchir aux moyens permettant un renforcement des mécanismes de coercition et d'incitation. La crédibilité de notre Organisation reste en jeu, nous aurons désormais une obligation de résultat dans la mise en œuvre et le renforcement ultérieur de cette mesure de court-terme.

Nous souhaiterions, monsieur le président, que ce texte soit annexé au rapport."

Statement by the delegation of Germany

"Thank you, Mr. Chair

We thank the co-sponsors for their submission.

Germany very much appreciates that the maritime sector is willing to take collective responsibility for decarbonising international shipping and therefore submitted a proposal to establish an International Maritime Research and Development Board.

The IMO Initial Strategy aims to phase out GHG emissions as soon as possible in this century and reduce emissions by at least 50% in 2050. We know operational efficiency of ships is a

very important aspect – that's exactly why we put a lot of efforts in the development of the STM, but it is clear that decarbonization of the shipping sector requires a transition from fossil fuels to sustainable carbon-neutral fuels or energy sources.

This industry-led initiative is a positive step forward to speed up research and development activities as provided by the IMO Strategy. We do support the need to initiate R&D activities. So we do welcome this initial discussion on the establishment of an IMRB, subject to further considerations, such as the need to avoid the duplication of research work and to separate the funding set-up from the Board.

In this regard, it is important to have a look at the bigger picture. By its nature, an IMRF can support the development of new technologies and their implementation. However, the IMRB cannot and does not provide the demand and pull instrument that is necessary for adoption of new technologies and sustainable fuels. We think that the Committee's priority should be to develop measures that can close the gap in competitiveness between fossil and sustainable alternative fuels to ensure the effective uptake of scalable sustainable alternative fuels and technology.

For that purpose, mid- and long-term measures are crucial. When these measures are in place, companies would probably also have the incentives to invest in R&D. In our view, we have to carefully cast our resources. In particular because we have heard many statements that now is the time to take the next steps. Also, the distinguished Secretary General reminded us that we have to be more proactive to foster the development of future alternative fuels and embark on discussing potential mid- and long-term measures as soon as possible.

Accordingly, we support that the Committee considers starting the discussion on the mid- and long-term measures and also on the revision of the IMO GHG Strategy without delay, as proposed e.g. in document MEPC 75/7/17 (Marshall Islands and Solomon Islands). The Initial Strategy already clearly specifies that certain mid- and long-term measures will require work to commence prior to 2023. And our workplan commits us to initiate the work of adjustments to the IMO Initial strategy in 2021. All the more it is important to establish appropriate working arrangements at MEPC 76 that reflect our daunting tasks – so that we are able to follow the agreed timeline – despite the difficulties caused by the COVID-19 pandemic. I really hope that this could be reflected in the report and that we can all agree on that. Again: Let us go this way together."

Statement by the delegation of the United States

"Thank you Chair.

The United States thanks the members of the Working Group for their effort under the excellent leadership of the Chair for the results that we are now considering.

The United States does not object at this time to the approval for circulation of the draft amendments to MARPOL Annex I concerning the reduction of carbon intensity for existing ships.

However, we have expressed concern throughout the process of developing these amendments that certain provisions – in particular the application of the EEXI standard to the global fleet – could have unanticipated impacts on the fleet, including potentially forcing ships prematurely and unnecessarily out of service. Impacts of the EEXI need to be further assessed, including whether ships in the current fleet will be able to meet the standard in a cost-effective manner. In addition to reviewing the comprehensive impact assessment, the United States will need to assess the impact on its own fleet and interests. The United States

will not be in a position to support the application of these regulations if we determine they disproportionately impact or remove ships from the U.S. fleet.

With regards to the Carbon Intensity Indicator (CII), the United States continues to have concerns over the rush to approve operational carbon intensity requirements before developing core aspects of the measure, including the basic metric to be used for measuring carbon intensity, and the associated reference lines and reduction factors. As work on these core elements of the proposed measure proceeds before MEPC-76, our final view on the measure will depend upon these elements being developed to again reassure ourselves that they do not disproportionately impact ships in the U.S. fleet.

With respect to the Terms of Reference for the impact assessment, we underscore that the impact assessment and the committee's consideration of it must consider impacts on all states, consistent with the Initial Strategy and the procedure adopted by this committee, and nothing in the Terms of Reference can be understood as limiting such consideration.

We look forward to work with everyone through the impact assessment and development of the very important guidelines."

Statement by the delegation of Vanuatu

"Chair, good day to everyone.

First of all, our most profound gratitude to the Chair of the GHG ISWG for his excellent work in this extremely difficult task to bring so many countries together on one of the most sensitive issue...our most sincere thanks to the Secretariat supportive staff of course.

For years, Vanuatu has pledged for an ambitious reduction of GHG emissions from international shipping while giving due consideration of the impacts on SIDS and LDCs specifically at the forefront of climate change but often also highly dependent on shipping if not fully dependent on shipping like most Pacific Island countries.

We are cognizant that the MARPOL Annex VI draft amendments presented for approval are not ambitious enough for many of us but it has the merit to be the final product of our work completed under severe time constraints despite the unprecedented COVID-19 pandemic that has seriously hampered our work.

International shipping is not only essential to the world with the carriage of 80 to 90% of the world trade but is also regulated by international conventions which link us all making the consensus even more difficult to achieve with 174 Member States and as many divergent views. We should not lose sight of this. We have taken part to every single GHG Working Group meetings and MEPC sessions for years and frankly, the debates made us pessimistic for any sort of outcomes.

The draft amendments to MARPOL Annex VI present a set of technical and operational short-term measures putting the international shipping sector on the path to decarbonisation regardless of where the ship is manufactured or operated, or which flag it is flying which by itself is already a tour de force... remembering our debates not so long ago on the CBDR principle. So, yes, we have made progress but if we are serious enough and honest we will all have to accept that this set of measures is NOT enough!

The enforcement provisions, the rating scheme, the plan of corrective actions – and the review clause in 2026 giving some comfort and hopefully certainty for more stringent measures – make this set of amendments acceptable at this stage – and I repeat at this stage – considering

that we are lacking of time and interactions to do better because sadly virtual meetings present serious burdens to our negotiations...

We understand there are many topics that need to be addressed before MEPC 76 to eventually have a robust regulatory framework and we will join forces to adequately address all of them because we are strongly committed that this framework enters into force by 2023. Time is of essence, the early we implement the earlier we will decide to strengthen the scheme to meet our 2030 targets.

No approval this week means no text for adoption next year and a complete new round of negotiations which sadly might not lead to a better outcome taking into account the different levels of ambition from Member States and their capacity to deliver on that ambition. As far as we are concerned, we take what we have on the understanding that 2026 will give us all the tools to deliver better.

Now, the Initial IMO GHG Strategy on reduction of GHG emissions from ships foresaw that the impacts on States of a measure should be assessed and taken into account as appropriate before adoption of the measure i.e. the amendments to MARPOL Annex VI. This assessment is meant to ascertain that there won't be any disproportionate impact on among others SIDS and LDCs.

This comprehensive impact assessment will be presented to MEPC 76 before the adoption of the proposed draft amendments to MARPOL Annex VI and It goes without saying that it would be difficult for us to agree to measures going forward without mitigating downstream implications if they are significant considering that international shipping is our lifeline.

No one seem to understand the state of our economy at the moment with the disastrous social and economic impacts of COVID-19 with business and job destructions, investments and revenues at the lowest which will take years to recover. Adding on top of that shipping costs increase would be simply unbearable unless mitigated."

Statement by the observer from SGMF

"In the interest of time, I refer to the contents of the document. I wish to address one important issue here: the study reported an 151% increase in methane emissions. This increase needs to be seen in its proper context: it is directly related to a large number of modern LNG carriers, using Boil Off Gas from their cargoes as fuel, entering service during 2012-2018.

Dual Fuel engines are nowadays the commonly used propulsion, compared with steam propulsion on older vessels. These Dual Fuel engines have higher methane slip than steam plants. The lower CO₂ emissions of these engines (due to higher efficiency and lower fuel consumption) far outweigh the higher methane slip.

SGMF wishes to draw 2 conclusions:

- .1 This 151% increase is not related to any vessels other than LNG carriers, these are not representative of the world deep sea fleet.
- .2 GHG emissions should be regarded as a total, as a CO₂ equivalence basis including methane.

Such a proposal was submitted to ISWG-GHG 7, together with information on methane slip from engines. We await its hearing.

SGMF (the Society for Gas as a Marine Fuel) stands ready to contribute to the ongoing process at IMO. We look forward to resuming discussions on this subject at ISWG-GHG 8 and expect to present a follow-up Life Cycle Assessment Well-to-Wake study of various candidate marine fuels."

Statement by the observer from CLIA

"Thank you Chair and greetings to everyone. CLIA would like to thank all of the authors of the Fourth IMO GHG Study for their contributions to this important work. CLIA sees this report as an important step forward providing the Committee with a critical tool to assist in the development of GHG reduction measures. This report should also be commended for its use of improved methods of data analysis which have resulted in more reliable and representative results.

Understanding that the Fourth IMO GHG Study will play an important role in setting baselines and standards for measures to be adopted by the Committee, the cruise industry would like to draw attention to some technical points that require further evaluation. The dataset for the cruise sector within the Study includes a large number of ships under 2,000 GT and under 10,000 GT. Many of these ships fall under the minimum size of applicability of 5,000 GT for Carbon Intensity Indicators, which was agreed upon at ISWG-GHG 7. Further emphasis should be put into ships in larger size brackets for the dataset to be more representative of the cruise industry.

The report uses four carbon intensity indicators to compare each shipping sector: EEOI, AER, DIST and TIME. CLIA supports the initiative of the report to develop these calculations but notes that discussions are still ongoing to develop appropriate proxies for transport work for specialized shipping sectors including cruise ships and indeed it is not clear what was used in the report. CLIA has drafted MEPC 74/6/1 which proposes Available Lower Berth capacity as an appropriate transport work proxy for cruise passenger ships. Consideration of this document is currently included in the draft terms of reference for the Correspondence Group on Air Pollution and Energy Efficiency. The cruise industry looks forward to more detailed consideration of these issues at the appropriate time."

Statement by the delegation of Cook Islands

"Chair,

The Fourth IMO GHG Study is in its scope and accuracy is a vast improvement on previous studies. The business-as-usual (BAU) scenarios is now projecting emissions of 90-130% of 2008 levels in 2050 rather than the alarming 50-250% of the Third IMO Study which had the effect of alarming civil society and resulted in the unwelcome demonizing of the shipping industry. To avoid the predicted level of temperature increase, it is stated necessary that an approximate halving of absolute GHG emissions is achieved across all sectors during this decade and that the global economy reaches zero emission by at least 2050.

As a SIDS in the front line of the impact of climate change responsible we would say that it is important firstly to place international shipping in its proper context, which is where it currently sits against other modes of transport – as opposed to the continual references to it as if it were a 'country', a comparison that is neither helpful nor appropriate. It is a false equivalency. After all, which other country maintains the world's economy, is fundamental in the delivery of the SDG's and crucially, delivers 80-90% of world trade?

Clearly shipping alone will not determine whether the globe will stay below 1.5% temperature rise, – Chair, it may well be better to see how well shipping is meeting its responsibilities as

a sector as compared to other industries and sectors, cement with emissions at 8%, IT development on a trajectory to 14% come to mind, and to ensure that emissions reductions are achieved in a coordinated and balanced way and as a package. The G20 countries, all of whom serve on the IMO Council, responsible for 78% of global emissions (this excluding shipping), have an important role here and must better take up the challenge. Otherwise we may see the risk that has already been identified, that companies seek to utilize other modes of transport and result in shifting the problem somewhere else.

Having said that the Cook Islands is pleased to lend support and approve this important GHG study.

Chair, I would now refer to the submission MEPC 75/7/17 from our Pacific friends, the Marshall Islands and the Solomons Islands. We thank them and indeed others who may have been involved in the preparation of this submission. However, we cannot support the notion of moving to a measure such as an MBM, identified in the Initial Strategy within a package of medium-term measures, ahead of the anticipated adoption at MEPC 76 of the short-term measures we only approved yesterday and to which we now await an impact assessment. Until we can determine whether or not the short term measures will have a negative impact on remote SIDS like ours and thereafter determine ways to mitigate against such impacts, including exemptions and/or compensatory mechanisms, we are not prepared to consider further measures such as MBM's, the costs of which will be passed down the supply chain, a further burden that our economy could not bear.

Chair, going forward the discussion must be focused on how to avoid the impact of any measures being inadvertently or indirectly passed to the countries most vulnerable to climate change and who like us, a SIDS with only .0001% of emissions, contributed the least to the problem.

Finally, at any stage of the process if there are negative impacts identified the discussion would need to move towards how we might consider mitigating against such impacts. The point here is that the SIDS/LDCS should not just be seen as a sound bite. This needs to be taken seriously by those countries who proclaim far and wide how much they care about the predicament the SIDS find themselves in with respect to the impacts of climate change. It cannot be right that SIDS should pay for any part of a future MBM scheme as costs are ultimately passed down the line for essential goods and services.

Thank you."

Statement by the delegation of Russian Federation

"В ИМО проводится очень важная и работа по поиску компромиссных решений, которые бы позволили эффективно реагировать на климатические изменения, не нарушая при этом работу международного судоходства, от которого, как мы знаем, зависит 90% мировой торговли.

В этой связи у нас есть озабоченность в отношении привязки климатических целей Парижского соглашения к амбициям в Стратегии ИМО, в варианте, как это предлагается коспонсорами в параграфе 10.

В-первых, нам не совсем понятно как можно технически привязать температурную цель Парижского соглашения и количественные показатели выбросов международного судоходства.

Во-вторых, уровень амбиций первоначальной стратегии по снижению углеродной интенсивности установлен в среднем для отрасли, а не для каждого судна.

Очевидно, что климатические цели Парижского соглашения также установлены для мировой экономики в целом. Это значит, что какие-то отрасли могут предпринимать больше усилий, другие отрасли, чья доля в общемировых выбросах незначительна, а роль в обеспечении работы мировой экономики огромна – как, например, судоходная отрасль, должны предпринимать усилия, насколько это возможно и целесообразно с практической точки зрения, без ущерба для эффективной работы отрасли и, как результат, - функционирования мировой торговли.

В противном случае мы рискуем сломать работающий экономический механизм, не добившись желаемого экологического результата.

Мы также не разделяем оценок коспонсоров относительно результатов 4-го исследования ИМО по парниковым газам. С нашей точки зрения исследование подтверждает, что ИМО движется правильным курсом, планомерно и последовательно разрабатывая финансово и технически обоснованные меры. Считаем необходимым сохранить этот подход, поскольку неоправданная гонка за завышенными амбициями может быть не только чревата серьезными экономическими последствиями для государств, но и подорвать переговорный процесс в ИМО.

Мы не поддерживаем предложение коспонсоров начать на данном этапе дискуссию о рыночных мерах. Какой-либо подобный разговор можно начинать тогда, когда существуют адекватные и доступные технические альтернативы технологиям, против которых направлены эти меры. Не случайно, что рыночные меры упомянуты в Стратегии ИМО как одна возможных среднесрочных мер по снижению выбросов парниковых газов, не самостоятельно, а как часть инновационных способов снижения выбросов, которые сначала необходимо разработать и вывести на рынок"

English version of the statement by the delegation of the Russian Federation

"IMO is conducting a very important work to find compromise solutions that could allow to effectively react on climate change without distorting the work of international shipping on which 90% of world trade is dependent on, as we all know.

In that respect we do have concerns about alignment of Paris Agreement temperature goals to the ambitions of the IMO Strategy, as suggested by cosponsors in paragraph 10.

First of all it is not quite clear to us how the temperature goal of the Paris Agreement can be technically aligned with quantitative parameters of emissions reduction in the IMO Strategy. Secondly. The level of ambition in the initial IMO Strategy to reduce carbon intensity has been established as average across the sector and not for particular ship.

Clearly the temperature goals of the Paris Agreement are also set for the world economy as a whole. That means that some of the sectors, especially those with larger emissions, can and should do more efforts, while other sectors with very small share of world emissions, but huge role for the global economy – like shipping, should pursue efforts as much as possible and practically feasible, without undermining the work of the sector and as a result – the functioning of global trade.

Otherwise we are risking to break down the good working economic mechanism without achieving the expected environmental result.

We also do not share the assessment of the cosponsors of the results of 4th GHG Study. To our view the Study confirms that IMO is on the right track by developing in consistent and systemic manner the set of financially and technically justified measures. We consider that the approach should be preserved since a rush towards overestimated ambitions can not only result in negative economic consequences for States but also undermine the negotiation process in IMO.

We do not support the proposal by the cosponsors to initiate discussion on market-based measures at this stage. Any such discussion can be started when there are adequate and affordable technical alternatives to the technologies against which the MBM is directed. It is not accidentally that MBMs are mentioned in the IMO Strategy as one of the candidate medium-term measures to reduce GHG emissions and not mentioned as standalone measure but as part of new/innovative emission reduction mechanisms, that first need to be developed and put on the market"

Statement by the observer from ICS

"Thank you, Sir. We thank the team which undertook this latest IMO GHG study and welcome the confirmation provided that shipping emissions remain below 2008 levels and the emissions growth has successfully be decoupled from trade growth. Overall, we are satisfied that the CO2 inventory provided is acceptably accurate as an indication of the sectors emissions. We do however have some concerns. The study appears to move the baseline for emissions from 2008, as agreed in the initial strategy to 2012 to misrepresent the achievements of the sector in improving energy efficiency. We also note that inventories for other emissions such as Black Carbon are based on estimates derived from a literature review and assumptions, and as such cannot be accepted as being accurate. We also note the concerns expressed by SGMF with respect to LNG in document 74/7/16. While these concerns do not significantly affect the overall veracity of the report when considering the industry's CO2 inventory they do have very significant implications if it is intended to use the study to inform policy development on other GHG emissions and in terms of the pattern of emissions since 2008 and as such we urge the Committee to be cognisant of these limitations when using the report of the study in its future work."

Statement by the observer of CSC

"Thank you Chair, and indeed thank you to the authors of the 4th IMO GHG Study. The CSC joins the co-sponsors of 75/7/17 in welcoming this report, and like them are alarmed at its findings. An almost 10% growth of sector wide emissions over the study period clearly shows an industry heading in the wrong direction on climate action. This study's findings spell that out clearly in a number of ways:

- The increase of methane emissions by over 150%, a bad sign considering the preference expressed by some for more LNG powered ships;
- The first ever calculation of black carbon, which is particularly potent in the Arctic; and
- The sign that carbon intensity reduction has slowed since 2015.

Taken together, CSC believes it's clear that shipping is charting a course for climate disaster. There is no indication that, without further action, shipping's emissions will peak anytime soon, much less meet the other goals of the initial IMO GHG Strategy or keep warming below dangerous levels. And the short-term ship climate measure approved yesterday isn't going to help.

Much firmer signals and bolder measures are necessary and as a first step in this direction we fully support the suggestion that work should begin immediately on revising the initial Strategy to bring it fully and unequivocally in line with the Paris Agreement target of warming no greater than 1.5 Celsius. Climate vulnerable nations and peoples the world over will have viewed your approval yesterday of a business as usual short-term ship GHG measure with despair. Please now give them some hope by expediting the review of the IMO's GHG Strategy to bring it fully into line with keeping warming below 1.5 degrees and help set the stage for genuine ship climate action in the near future.

Thank you Chair."

Statement by the observer from CSC

"Thank you Chair.

Yesterday there was some talk of informal discussion. If these take place, we are keen to contribute and we hope that you and the IMO will ensure that all stakeholders that want to be involved in those discussions are involved.

We raise this point because civil society NGOs were deliberately excluded from the informal discussions on a short term GHG measure that took place prior to and during ISWG GHG7, which we believe seriously harmed the process, affecting the legitimacy of the outcome.

Where, as a result of restrictions placed on the process by the pandemic, informal processes are being used to cover ground that might otherwise have been covered in a working or correspondence group then it is especially important and entirely appropriate that NGOs should have the same right of meeting access as they do to those working and correspondence groups."

Statement by the delegation of Brazil

"Thank you, Mr. Chair.

We thank the proponents for document MEPC 75/7/4, as well as the commenting papers. Although we see value in the idea and understand the urgency in promoting research and development activities to achieve more sustainable fuels, Brazil is not in a position to support the establishment of an International Maritime Research and Development Board in the format proposed by ICS et al.

Brazil understands the idea behind the argument that the mandatory USD 2 levy to fund the IMRB may not be, in theory and in the proponents' intention, a market-based measure. However, it is our belief and concern that, in practice, this charge will act as a de facto carbon tax, thus penalising shipowners, especially those who operate in remote areas, far from their destination markets. We do not support the idea of having a mandatory contribution, especially one that resembles a market-based approach, which, according to the IMO's Initial Strategy, is supposed to be a medium-term candidate measure and, as such, be subject to an impact analysis before its adoption.

In this sense, Brazil welcomes the views provided by the OECD in document MEPC 75/7/14. It is our belief that the various elements brought by the OECD should be considered, especially those related to the concerns of potential market distortions that the introduction of a mandatory levy that resembles government subsidies under the IMO would create. Besides the additional burden and imbalances this measure could potentially create, there are also important issues related to governance, transparency in the distribution of resources and issues related to intellectual property and access to the outcomes of the research and development process to be funded that are not clear in this proposal.

Thank you."

Statement by the delegation of Chile

"Agradecemos la propuesta presentada al MEPC en materia de aplicar una contribución obligatoria de US\$ 2 por tonelada de combustible consumida para el desarrollo de una línea de trabajo de I+D (MEPC 75/7/4). Chile valora los aportes que la investigación y el desarrollo pueden realizar en esta temática. De hecho, consideramos que es un elemento que contribuirá a alcanzar los niveles de ambición de la Estrategia de OMI. No obstante ello, estimamos que una contribución obligatoria como la que se propone no es la manera de obtener fondos para realizar I+D; asimismo, es una medida que penalizaría a países distantes, simplemente por su condición geográfica, y que por ende requieren un mayor consumo de combustible. Además, el Grupo de Trabajo acaba de acordar metas técnicas y operacionales adicionales y debemos finalizar el trabajo en el desarrollo de las directrices.

Cabe indicar que las medidas de mercado se consideraron como candidatas durante la elaboración de la Estrategia; sin embargo, es relevante considerar la crisis económica que se ha generado producto de la pandemia. En efecto, un reciente estudio de UNCTAD señala que el comercio marítimo mundial disminuirá en un 4,1% en 2020 debido a la interrupción sin precedentes causada por Covid-19. Estos efectos debiesen contemplarse en el diseño de futuras medidas.

En síntesis, creemos que se deben focalizar los esfuerzos en trabajar en las medidas candidatas a corto plazo tales como el análisis de ciclo de vida del combustible, la disminución en las fugas de metano provenientes del GNL, entre otras."

Statement by the delegation of Germany

"The IMO Initial Strategy sent a clear signal to governments and industry that IMO was serious about decarbonisation. As a first important step for the implementation of the Strategy the Seventh Intersessional Working Group on Reduction of GHG emissions from ships, after a lot of informal work and one week of intense discussions, finally agreed to recommend to the Committee a package of short-term measures.

We have been very clear in the past and we will be very clear today: We are afraid that this outcome will not meet even the minimum levels of ambition that we jointly agreed upon only two years ago. This is hard for us to accept because we definitively aimed for more.

But at the same time, we acknowledge and we appreciate the comprehensive efforts and trustful cooperation established in the Working Group. And that these have enabled us to agree on a solid framework which we can build upon in the future. At least we now have the basis for a global standard for ship energy efficiency that can be applied worldwide. This is key to putting the international shipping sector on the path to decarbonisation.

We also acknowledge that at this point in time it has not yet been possible for everyone to take further decisive steps. There is an ancient proverb saying

"If you want to go fast, go alone. If you want to go far, go together".

Wise words – making it difficult for us. Because we have to go far, so we have to go this way together. But we also have to be fast. There is no time left, global shipping has to start on the path to decarbonisation immediately.

We support the approval of the draft amendments to MARPOL Annex VI and the development of the accompanying MEPC resolution, as set out respectively in ISWG-GHG 7 WP.3 at this session of the Committee in a spirit of cooperation, calling on all Member States to fulfil the promise we made to the international community in 2018 when agreeing on the Initial Strategy.

It must therefore be very clear to everyone that this carbon intensity framework will have to be strengthened to allow for a pathway in line with the Paris Agreement objectives and to ensure the fulfilment of the Initial IMO GHG strategy. During the entire discussion, we felt a broad understanding that the outcome of this intersessional meeting is only a starting point. We now have to continue our concerted efforts to ensure that the IMO delivers on its promise and international shipping makes its contribution to the global combat against climate change. This is all the more important with regard to the needs of climate vulnerable States.

Surely, we also agree to the need to do a comprehensive impact assessment in line with the Initial Strategy. Germany supports this process by a contribution of 80,000 euros to the IMO GHG-TC Trust Fund.

Further work is then required to implement these measures in a rigorous and ambitious manner, in terms of the accompanying guidelines and the development of a new Carbon Intensity Code. Of course, we support the establishment of a Correspondence Group on the agreed development of Technical Guidelines on carbon intensity reduction. This task is essential for us and we will actively contribute to the work of the Correspondence Group.

Right after the necessary technical preparations, including the elimination of legal obstacles, we then definitively need to raise the bar, so the measures are strengthened as soon as possible. To do so, it is indispensable to set up a robust and effective enforcement scheme. And we need further incentives for ships to go beyond the minimum performance required.

We are looking forward to work with all parties to improve the framework that we were able to achieve so far. Germany is firmly determined to further work on ambitious short-term measures and to start working on meaningful mid- and long-term measures as soon as possible. In this regard, we would again like to highlight the importance to finally establish solid working arrangements for our future work on the reduction of GHG emissions from international shipping.

Chair, distinguished delegates, colleagues and friends, at the risk of repeating myself - let us be cognizant that our work has only just started. We are still at the very beginning. The world is watching us, and our work so far does not catch up with the expectations. We have not yet sent the sign, that the world needs and that the public is waiting for. It is high time for us to proceed on our path. Let us go fast and far. Let us prove that we can go this path together."

Statement by the delegation of Malaysia

"Thank you Chair,

We wish to thank the submitters and co-sponsors for the paper. We appreciate that there is a glaring need to leapfrog R and D in several vital areas, namely:

- a. Alternative Fuel
- b. New Technology
- c. Enhancing existing vessel capability so that there will not be a chokehold on tonnage. The intent is both noble and very dynamic.

Sir, we appreciate the approach; however, there are several key issues which needs careful forethought.

We believe there is a legal dimension to the proposal. Certainly, as in any international convention, these are subject to national laws, we have been advised that are areas in the proposal which borders fiscal control. The dynamics of collection and distribution, as well as

oversight, needs to be articulated. We believe that despite the levy imposed is within the normal fluctuation of fuel prices having considered the bunker price movement in the past six months; we are concerned if there will be cascading price fluctuations. It should not impose any more economic strain on vulnerable states and geographically distant economies. We appreciate that in some routes or sectors bunker are paid by charterers, but the consumer and retail segments are still paying it as this cost is passed on. As a candidate measure, there will need to be an impact assessment on the effect on states as we believe the rules apply to all candidate measures. Thus, this proposal should be annexed with an appropriate impact assessment as prescribed under MEPC.1/Circ 885.

We look forward to discussing this proposal on the deployment and surveillance mechanism, especially on the rollout using port state control officers. In short, there is a concern with the proposal, and it will need to be discussed further as such we do not support the proposal in the current form.

Thank you."

Statement by the delegation of the United Arab Emirates

"The United Arab Emirates would like to thank all submitters under this agenda item. UAE also welcomes the submission by ICS et al. and Vanuatu to establish an International Maritime Research and Development Board (IMRB), as one of the candidate short-term measures which is categorized in the IMO initial strategy to coordinate and oversee R&D activities and efforts.

The proposed structure of IMRB, in ICS et al., is completely independent from IMO structure. A new NGO is likely to be formed for this purpose with limited oversighting and no involvement of IMO in decision-making in spite of the funding from its Member States.

Our delegation believes that IMRB as a board does not mean establishing an organization. The board could be formed by expertise in a form of a dedicated standing technical group or a new sub-committee or even as proposed by Vanuatu's that IMRB could form an integral part of the Organization with the establishment of a new IMO Maritime Research and Development Department (MRDD). UAE believes that this suggestion is more applicable and manageable and also in line with IMO Convention and the organization's method of work.

With regard to the funding mechanism via MARPOL Annex VI as proposed by ICS et al, it is clearly stated that this proposal is a Market-Based Measure (MBM) as identified in annex 2 as a measure with impact assessment. Therefore, any proposal related to MBM could be addressed when mid-term and long-term measures are introduced accordingly. On the other hand, Vanuatu's proposal focuses on the funding mechanism through the principle of Gross Tonnage which is, in our view, not a source that contributes directly to the emissions which is normally the fuel.

Another issue related to the Intellectual property rights and patents which considered to be a valuable source of income and could be seen in the earnings gained from the licensing of technology, this document did not indicate who would be benefited from such good source of income. Therefore, further discussion and considerations are needed in this regard.

As highlighted by OECD for their document MEPC 75/7/14 on the issue of clarity of objectives as highlighted in paragraph 6 of their document. UAE believes that the proposal lacks clear SMART strategy (Specific, Measurable, Achievable, Realistic or Relevant and Time-bound) towards the proposed projects. Without specific and clear objectives, goals could not be measured therefore could not be achieved. Some of the projects, such as hydrogen and

ammonia, would take several decades or even more to be brought to the market for commercial scale and make such technology affordable and accessible for the global market which we believe it would be beyond the envisaged life (10-15 years) of both IMRB and IMRF when both would be formally dissolved. Not to mention that some projects such as hydrogen has serious implications on safety of the fuel and ammonia with its toxicity and emissions as indicated in document MEPC 75/INF.5.

UAE also agree with Solomon Islands in document MEPC 75/7/13 that the proposal is not likely to either promote the interests of SIDS and LDCs in the rapid reduction in GHG emissions or alleviate detrimental effects of climate change on SIDS and LDCs. In addition, any oversight body established to determine priorities and allocation of funding for R&D must not be dominated by one group and must include representation from SIDS and LDCs. A percentage of funding should include SIDS and LDCs target the shipping needs of SIDS and LDCs and that funding may also be allocated to deployment, market-readiness and commercialization projects.

At this stage, our delegation can support the establishment of IMRB to form an integral part of the Organization and the establishment of a fund should be in a voluntary basis as per the IMO existing mechanism, taking into account, other initiatives and funds established such as the Green Climate Fund (GCF) which was set up by the United Nations Framework Convention on Climate Change (UNFCCC).

Finally, Mr. Chair, the United Arab Emirates has no doubt that IMRB and the associated Fund can provide the means to support the innovation process and meet the ambitious of the IMO initial Strategy. However, and before taking a decision on this matter, UAE would like to seek the legal advice from the Secretariat if IMO could establish such a mandatory fund via amendment of one of its instruments such as MARPOL Annex VI to establish and fund a Non-Governmental Organization (NGO)."

Statement by the delegation of the Cook Islands

"If nothing else this week has shown that this is not and cannot be seen as an acceptable way to deliberate on, develop, approve and adopt international legislation.

How the Council decided to only give us 5 x 3 hours virtual days when a normal face to face meeting has 5 x 5 hours days plus breaks to discuss, lobby & seek consensus is a mystery to us.

Clearly we need ISWG GHG 8 and MEPC 76, if virtual, to be at least 8 x 3 hours working days and we suggest in the strongest terms that the Committee calls, as a matter of the utmost urgency, upon the 124th Session, i.e. the next session, of the Council to approve such working arrangements."

ITEM 10

Statement by the observer from Pacific Environment

Ms. Mellisa Johnson: "Thank you, Chair.

Let me right from the start be absolutely clear with delegates. I am joining with Civil society organizations, represented here by the Friends of the Earth International, Greenpeace International, WWF, Pacific Environment, and the Clean Shipping Coalition, to say that we do not believe that the draft Arctic HFO language being considered here is a ban at all, and we cannot and will not support it.

If it goes ahead, it will be a massive missed opportunity to provide urgently needed protection for the Arctic and Indigenous Peoples who rely on those waters and it will inevitably cause widespread confusion, with the wider world assuming that a "ban" stops HFO being used in the Arctic when actually, what is happening at the IMO is only a modest and likely temporary reduction in its use for the first ten years.

I am introducing document MEPC 75/10/7, which comments on document MEPC 75/10/Add.1, paragraph 3.5, on the draft amendment to MARPOL Annex I to incorporate a prohibition on the use and carriage for use as fuel of heavy fuel oil by ships in Arctic waters.

Throughout 2020, the Arctic has been featured in the news on a regular basis – with substantial openings in the sea ice earlier than normal at the beginning of the summer season, the Northern Sea Route opened in July for the first time ever, and the summer sea ice reaching its 2nd lowest extent since records began over 40 years ago in September. The Arctic is changing rapidly and trade and shipping activity is increasing. According to the ICCT, over the last four years the use of HFO in the Arctic has increased 75% and black carbon emissions have grown 85%. We cannot wait ten years to stop HFO use in the Arctic. Let me say this again for clarity, ten years is simply too long to wait!

In MEPC 75/10/7, you will find the conclusions of a recent ICCT study into the effectiveness of the draft amendment, along with legal concerns such as the possibility of transboundary pollution resulting from the inclusion of a waiver clause. I will now pass the mic for a moment to Dr. Bryan Comer from the ICCT who will explain the more about the ICCT study and its findings:"

Dr Bryan Comer: "Thank you Mellisa.

My colleagues and I analysed how much HFO and black carbon emissions would decrease under the proposed ban, taking into account the exemptions and waivers. In the current text, ships with so-called "protected fuel tanks" would be exempt from the ban until July 2029. In addition, Arctic countries would be allowed to waive the requirements of the HFO ban for ships flying their flag while operating in their waters until July 2029. As a result of these exemptions and waivers, we found that the draft amendments will allow 74% of the HFO-fuelled fleet to keep using HFO in the Arctic. As a consequence, we found that the proposed amendments will only reduce HFO carriage by 30%, will lower HFO use by only 16%, and will decrease black carbon emissions by only 5%. Unfortunately, the regulation's effectiveness is expected to diminish over time. As newer ships built with protected fuel tanks enter the fleet, they will qualify for exemptions and be allowed to carry and use HFO until July 2029. Additionally, if ships reflag to Arctic States, more will qualify for waivers, further eroding the regulation's effectiveness. Ultimately, we concluded that exemptions and waivers should be eliminated or at least limited if the regulation is to actually ban HFO before the end of the decade.

Thank you, Chair."

Statement by the observer from WWF

"Arctic sea ice is melting at an unprecedented rate which means the potential for more and more vessels transiting through the Arctic. That increased traffic brings potential threats to marine life and ecosystems already under stress from a rapidly changing climate. All IMO members and especially Arctic States need to ensure the final HFO ban fulfils the original intent, and completely eliminates its use by 2024 to protect the food security and livelihoods of local and Indigenous communities from pollution and spills. Given the projected increase in shipping and impacts that that will likely bring, a full HFO ban without exemptions and waivers coming into effect in 2024 levels the playing field for Indigenous and local communities.

There is still time to get this right. If the text is left as is, this will be a ban in name only and will likely oversee an increase in HFO use and HFO carriage in the Arctic in the next 9 years. HFO is one of the world's dirtiest fuels, producing higher levels of air and climate pollutants than any other marine fuel. Effectively banning HFO in the Arctic is also an important step in the IMO fulfilling its commitment to a comprehensive greenhouse gas emissions reduction strategy. The shipping industry must do its part in achieving a net zero future, and protecting Indigenous and local communities in the Arctic. We urgently plead with IMO member states to fix the current text and remove all waivers and exemptions, and fully ban HFO by 2024.

Thank you."

Statement by the observer from CSC

"The Clean Shipping Coalition supports the comments made by our co-sponsors. We do not believe that the draft Arctic HFO language can be considered a ban at all. And we cannot and will not support it. If it goes ahead it will be a massive missed opportunity to provide urgently needed protection for the Arctic and it will inevitably cause widespread confusion, with the wider world assuming that a "ban" stops HFO being used in the Arctic when actually in the mouth of the IMO it only means a modest and likely temporary reduction in its use for the first ten years.

Mr Chair, a "ban" that affects just a quarter of ships is not a ban at all. And one of the reasons that it's not a ban is that it doesn't treat all flags equally. Arctic states will be free to allow all ships flying their flag to continue to use HFO out to the furthest reaches of their EEZs, regardless of ship type, size, or age, and regardless of whether or not they have protected fuel tanks. This rewards ships flying the flags of the five central Arctic coastal states by allowing them to continue to use heavy fuel oil while other ships must comply with the regulation. We are surprised that this isn't setting alarm bells ringing at IMO.

We are also concerned that issuing waivers will relax international environmental standards in the EEZs and territorial seas of Arctic coastal States. UNCLOS requires that flag States adopt regulations for their EEZs for the prevention, reduction, and control of pollution from ships flying their flags that must at least have the same effect as generally accepted international rules and standards. Because waivers would weaken protections of the marine environment in these areas, it raises important legal questions about whether waivers are even compatible with MARPOL or UNCLOS, especially because ships with waivers are at increased risk of spilling HFO, which could also result in transboundary pollution. More alarm bells surely!

The Arctic is changing rapidly and trade and shipping activity is increasing. According to the ICCT, over the last four years the use of HFO in the Arctic has increased 75% and black carbon emissions have grown 85%.

I will conclude by repeating Mr Chair that if the draft Arctic HFO ban is taken forward in its current form it will do so without the support of civil society and the organisations that have been at the forefront of the push to protect the Arctic from HFO. As my colleague with Pacific Environment said "Ten years is too long to wait".

Statement by the observer from FOEI

"Thank you Chair,

First, I would like to offer Friends of the Earth International's sympathies to the people of Mauritius facing the challenges of dealing with the MV Wakashio HFO fuel spill – a spill that was not of their making. Secondly, we would like to congratulate Norway for showing leadership in consulting on eliminating the risk posed by the use of HFO in the Arctic – and we hope that their commitment leads to a successful outcome.

FOEI supports the comments made by our co-sponsors on Paper 75/10/7. We do not believe that the draft Arctic HFO language being considered here is a ban at all. If it goes ahead as currently drafted it will be a massive missed opportunity to provide urgently needed protection for the Arctic and our people.

An HFO spill in our Arctic waters, where our people have survived and depended on for thousands of years, would devastate our subsistence way of life. The sensitive marine wildlife we depend on for food, such as seals, whales, walrus, fish and birds, would be devastated.

In particular, we have a major concern about the risk of transboundary HFO pollution in the Bering Straits region where my family lives between Russia and Alaska USA. The UN Convention on the Law of the Sea requires states to take all measures necessary to ensure that activities under their jurisdiction or control do not cause damage through pollution to other States and their environment. We believe that the issuing of waivers for vessels to continue carrying and using HFO maintains the risk of an HFO spill in the Bering Strait and is not in keeping with the intent of the Law of the Sea Convention.

FOEI calls on all IMO Members to support Arctic States in strengthening the ban on HFO use and carriage as fuel in the Arctic and speeding up its entry into effect for the health and safety of Indigenous peoples."

Statement by the observer from Greenpeace International

"Thank you Chair,

First of all, Greenpeace would like to offer our sympathies to the people of Mauritius dealing with the aftermath of the **MV Wakashio** HFO spill in August and we wait to see what action will be taken by the IMO and others in order to prevent such incidents in the future.

As a co-sponsor of MEPC 75/10/7, Greenpeace would like to support the comments made by the co-sponsors of this submission. A ban that allows an increase in the use and carriage of HFO in the Arctic would be a perverse response to the urgent problem at hand.

The Arctic is one of the most fragile marine ecosystems in existence and the impact of an HFO spill here would be absolutely catastrophic for both the Indigenous Peoples who live across the Far North and the myriad species that call it home. Sea ice, gale force winds and stormy seas, months of perpetual twilight, extreme remoteness and an absence of deep water ports or other infrastructure would make any kind of response operation extremely challenging, to put it mildly. Prince William Sound in Alaska has still not fully recovered decades after the **Exxon Valdez** spill.

As the warming Arctic allows greater access to shipping, it would be an abject failure of leadership were the IMO to enact such weak regulations that serve only to increase the likelihood of oil spills in the Arctic in the future. For these reasons, Greenpeace does not

support the draft regulation as currently drafted and urges this committee to remove waivers and exceptions if IMO members are serious about protecting the fragile Arctic environment and its people from future oil spills.

Furthermore, it is vital to keep in mind that the Arctic sea ice has already lost two-thirds of its volume, that there has been a consistent decline in sea ice extent over the past decades and that the 2020 *Arctic sea ice* minimum was the second lowest on record. Ultimately, therefore, as both the climate emergency and recent oil spills have made clear, the industry must urgently transition away from fossil fuels, consistent with the goals of the Paris Agreement."

Statement by the delegation of the Russian Federation

"Российская Федерация благодарит участников переговоров на PPR7 за конструктивный подход и желание найти компромиссное решение. Результатом этого явилось именно компромиссное решение, которое, очевидно, не удовлетворит всех. Мы понимаем, что кто-то хочет применить запрет раньше или в большем объеме. Мы же, наоборот, на основе исследований и собственного опыта в Арктике убеждены, что запрет на тяжелое топливо нецелесообразен в принципе.

Российская Федерация твердо уверена, что запреты не всегда являются оптимальным способом решения экологических проблем. Вместо этого необходимо применять комплексный подход, разрабатывать и применять меры по снижению рисков на национальном, региональном или универсальном уровне, таким образом, чтобы обеспечить соблюдение высоких экологических стандартов без отрицательных последствий для экономики и социальной сферы.

Запреты, к сожалению, в большинстве случаев не гарантируют отсутствие таких отрицательных последствий. Они дают ложную уверенность в том, что угроза устранена раз и навсегда, и что нет больше необходимости принимать какие-то меры предупреждения и реагирования на эту угрозу.

Подводя итог, на данный момент мы считаем возможным одобрить проект поправок. Это конечно не означает, что сняты все наши озабоченности относительно технической проработки запрета и возможных социально-экономических последствий его введения. Но предложенные временные рамки и условия запрета, по нашему мнению, позволяют комплексно провести оценку ситуации и перспектив и заблаговременно проработать необходимые меры"

English version of the statement by the delegation of the Russian Federation

"The Russian Federation would like to thank the participants of the negotiations held at PPR7 for the constructive approach and willingness to find compromise solutions. The result is precisely a compromise that evidently would not satisfy all. We do understand that some may want to apply the ban earlier or to larger extent. On the contrary, we are convinced that HFO ban is not necessary at all on the basis of research and own experience in the Arctic.

The Russian Federation strongly believes that bans do not always represent the optimal way to solve environmental issues. The approach should instead be comprehensive, implying the development and implementation of measures to reduce the risks on national, regional or global level, to ensure the highest environmental standards without adverse consequences to the economy and social sector.

Bans unfortunately in most cases cannot guarantee the absence of such adverse consequences. Bans give false confidence that threat has been removed once and for all and that there is no need to take any precautionary and response measures anymore.

To sum up, at this point we consider it possible to approve the draft text of amendments. That does not mean of course that all our concerns regarding technical justification and social and economic consequences have been withdrawn. But the timeframe and conditions of the ban in our opinion allow to assess the situation and perspectives in comprehensive manner and to elaborate relevant measures in advance"

MARITIME ENVIRONMENT PROTECTION
COMMITTEE
76th session
Agenda item 15

MEPC 76/15
12 July 2021
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**REPORT OF THE MARINE ENVIRONMENT PROTECTION COMMITTEE
ON ITS SEVENTY-SIXTH SESSION**

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1 INTRODUCTION – ADOPTION OF THE AGENDA

1.1 The seventy-sixth session of the Marine Environment Protection Committee was held remotely from 10 to 17 June 2021, chaired by Mr. H. Saito (Japan). The Vice-Chair of the Committee, Mr. H. Conway (Liberia), was also present.

1.2 The session was attended by 122 Members and 3 Associate Members; 5 representatives from the United Nations Programmes, specialized agencies and other entities; 11 observers from intergovernmental organizations with agreements of cooperation; and 50 observers from non-governmental organizations in consultative status, as listed in document MEPC 76/INF.1.

Opening address of the Secretary-General

1.3 The Secretary-General welcomed participants and delivered his opening address, the full text of which can be downloaded from the IMO website at the following link:

<https://www.imo.org/en/MediaCentre/SecretaryGeneral/Pages/Secretary-GeneralsSpeechesToMeetings.aspx>

Chair's remarks

1.4 The Chair thanked the Secretary-General for his opening address and stated that his advice and requests would be given every consideration in the deliberations of the Committee.

Statements by delegations

1.5 The delegations of China, the Democratic People's Republic of Korea and the Republic of Korea expressed concerns with regard to the Japanese Government's decision to dispose of the contaminated water from the Fukushima nuclear plant accident by discharging it into the sea, and invited Japan to re-evaluate this decision and to provide more information. In addition, the delegations of China, France and the Russian Federation expressed the view that this matter should be further considered under other forums such as the International Atomic Energy Agency (IAEA); in this regard the Committee also noted that the Secretariat maintained a close relationship and cooperation with IAEA. The delegation of Japan stated that the water would be treated and therefore would not be contaminated but would be discharged into the sea in accordance with relevant domestic and international regulations, and that the Government of Japan had already provided information to relevant forums including IAEA. The full text of the statements made by the delegations of China, the Democratic People's Republic of Korea and Japan are set out in annex 20.

1.6 The delegation of Georgia made a statement highlighting the importance both of the marine environment and of seafarers, making reference to World Oceans Day and the Day of the Seafarer, noting that the former's theme this year was "The Oceans: Life and Livelihoods". The full text of the statement made by the delegation of Georgia is set out in annex 20.

1.7 The observer from Pacific Environment made a statement highlighting the importance of the Arctic and its vulnerability to a number of threats including climate change and the emissions of greenhouse gases and Black Carbon, as well as oil spills, wastewater, chemicals, garbage and noise pollution. The full text of the statement made by the observer from Pacific Environment is set out in annex 20.

Measures taken to facilitate the remote session

1.8 The Committee recalled that at the joint extraordinary session of all IMO Committees (ALCOM/ES), held in September 2020, the Committees jointly approved *Interim guidance to facilitate remote sessions of the Committees during the COVID-19 pandemic* (MSC-LEG-MEPC-TCC-FAL.1/Circ.1), and had agreed in particular to:

- .1 waive rule 3 of their respective rules of procedure, in part, to allow sessions to be held remotely;
- .2 accept, for the purpose of facilitating remote sessions, electronically submitted credentials, with originals to follow; and
- .3 consider Members that had submitted valid credentials, were registered at OMRS and were listed as participants in the remote session, as "present" within rule 28(1) of its rules of procedure.

Adoption of the agenda and related matters

1.9 The Committee adopted the agenda (MEPC 76/1) and agreed to be guided in its work by the provisional timetable (MEPC 76/1/1, annex 1).

1.10 The Committee noted document MEPC 76/1/1 (Chair) setting out the proposals by the Chair with regard to arrangements for the remote session, taking into account the *Interim guidance to facilitate remote sessions of the Committees during the COVID-19 pandemic* and in consultation with the Secretariat, including duration of the virtual meeting of the remote session of MEPC 76.

1.11 In this context, the Committee noted that the Chair, having considered the number of documents submitted to this session, the documents deferred, the experience gained from the conduct of the previous remote session and the urgent matters which needed to be considered at this session, had proposed in document MEPC 76/1/1 a one-day extension to the five-day duration of MEPC 76 that had been tentatively noted at the previous session.

1.12 Having noted that no objections had been received by the deadline of 19 May 2021 for commenting on the Chair's proposal, the Committee concurred with the Chair's proposal on the dates and duration of the session.

1.13 In this connection, the Committee agreed to further consider, under agenda item 12 (Work programme of the Committee and subsidiary bodies), the concerns expressed by the Russian Federation with regard to the procedure that should be followed by the Committee, as set out in annex 1 of document MEPC 76/1/1/Add.1 (see paragraph 12.13). The delegation of the Russian Federation, supported by the delegations of China, Malaysia, Saudi Arabia and the United Arab Emirates, while reconfirming its support for the extension of the duration of this session, also reiterated its view that the procedural and financial implications of this decision should be considered to ensure adherence to the Organization's rules and procedures in the future, and suggested the inclusion of the following in the report of the Committee:

"The Committee requests that relevant IMO procedures shall be strictly followed in future in respect of the consideration of the duration of the Committee's sessions or any other matters related to the conduct thereof, as well as with regard to any subsequent amendments of the adopted Reports of the Committee. The Committee forwards this issue for the review and endorsement by the Council and undertakes to provide for further extension of its sessions only after due consideration by the Council, including in terms of potential budgetary implications for the Organization".

1.14 The Committee also agreed to further consider, with a view to clarifying whether documents commenting on those documents deferred from previous sessions could be submitted by the seven-week deadline under agenda item 12 (Work programme of the Committee and subsidiary bodies), taking into account the comments made by Japan, as set out in annex 2 of document MEPC 76/1/1/Add.1 (see paragraph 12.[...]).

1.15 The delegation of Norway suggested considering document MEPC 76/7/10 (Australia et al.), containing a proposed work plan for the development of mid- and long-term measures following up on the Initial IMO GHG Strategy, earlier than shown in the timetable (MEPC 76/1/1, annex 1), arguing that priority should be given to the most widely co-sponsored document. The Committee agreed that this could be considered in due course depending on the progress of deliberations under agenda item 7.

1.16 Consequently, the Committee endorsed the Chair's proposals on the arrangements for the remote session as set out in document MEPC 76/1/1 and MEPC 76/1/1/Add.1(Chair).

1.17 In this context, the Committee further agreed to the Chair's proposals in relation to the documents considered by correspondence prior to the virtual meeting (MEPC 76/1/1, annex 2), having noted document MEPC 76/1/1/Add.1 providing a collation of all comments received by correspondence and explanations on how these comments had been addressed. The Committee noted that the above-mentioned Chair's proposals would be reflected under relevant agenda items.

1.18 The Committee also agreed to postpone the consideration of the documents listed in annex 3 to document MEPC 76/1/1 to MEPC 77.

1.19 The delegation of the Islamic Republic of Iran expressed concerns over the use of the term "Arabian Gulf" in document MEPC 76/INF.65 (FOEI) and recalled that, in accordance with UN resolution ST/CS/SER.A/29, the correct term should be "Persian Gulf". The full text of the statement made by the delegation of the Islamic Republic of Iran is set out in annex 20.

Credentials

1.20 The Committee noted that the credentials of 111 delegations attending the session were in due and proper form.

2 DECISIONS OF OTHER BODIES

2.1 Following consideration by correspondence, prior to the virtual meeting, in accordance with the arrangements of the remote session, as outlined in document MEPC 76/1/1 (paragraphs 14 to 17) and its annex 2 (section 1 on agenda item 2), the Committee noted the decisions and outcomes of FAL 44 (MEPC 76/2), C 124 (MEPC 76/2/1), MSC 102 (MEPC 76/2/2), LC 42/LP 15 (MEPC 76/2/3) and TC 70 (MEPC 76/2/4) with regard to its work, and agreed to take action as appropriate under the relevant agenda items.

2.2 The outcome of MSC 103 relevant to the work of the Committee (MEPC 76/1/1/Add.1, paragraphs 12 to 15) was considered under the relevant agenda item 10, as it entailed decisions emanating from the outcomes of III 6 and SDC 7 (see section 10).

3 CONSIDERATION AND ADOPTION OF AMENDMENTS TO MANDATORY INSTRUMENTS

Amendments to mandatory instruments

3.1 The Committee considered this agenda item during the virtual meeting and was invited to consider and adopt proposed amendments to:

- .1 MARPOL Annex VI concerning mandatory goal-based technical and operational measures to reduce carbon intensity of international shipping and exemption of unmanned non-self-propelled (UNSP) barges from survey and certification requirements;
- .2 MARPOL Annex I concerning the prohibition on the use and carriage for use as fuel of heavy fuel oil by ships in Arctic waters;
- .3 MARPOL Annexes I and IV concerning the exemption of UNSP barges from survey and certification requirements; and
- .4 AFS Convention concerning controls on cybutryne and the form of the International Anti-fouling System Certificate (IAFSC);

and to approve the

- .5 draft guidelines for exemption of UNSP barges from the survey and certification requirements under the MARPOL Convention.

3.2 The Committee noted that the text of the aforementioned amendments to the mandatory instruments had been circulated, in accordance with articles 19(2)(a) of MARPOL and 16(2)(a) of the AFS Convention, to all IMO Members and Parties to MARPOL and the AFS Convention by Circular Letters No.4350 and No.4351 of 2 December 2020, respectively.

Draft amendments to MARPOL Annex VI

3.3 The Committee recalled that MEPC 75 had approved draft amendments to MARPOL Annex VI concerning mandatory goal-based technical and operational measures to reduce carbon intensity of international shipping and exemption of UNSP barges from survey and certification requirements, with a view to adoption at this session, with the understanding that this was a package together with the terms of reference for a comprehensive assessment of the possible impacts of the short-term measure on States. The draft amendments, which form part of a fully consolidated draft 2021 revised MARPOL Annex VI, are set in the annex to document MEPC 76/3, with a view to adoption.

3.4 The Committee agreed to consider proposals on further modifications to the draft amendments submitted under this agenda item and to instruct the virtual Drafting Group on Amendments to Mandatory Instruments to be established to start its work as soon as possible and that any decisions taken under agenda item 7 concerning the impact assessment, together with related commenting documents, would be duly referred to the virtual Drafting Group, as appropriate. The regulation numbers referred to below are those of annex 1 to document MEPC 76/3.

3.5 The Committee had for its consideration four documents commenting on the draft amendments, as follows: MEPC 76/3/5 (Estonia et al.), MEPC 76/3/6 (Brazil et al.), MEPC 76/3/8 (United States), and MEPC 76/3/9 (IMarEST).

3.6 The Committee considered document MEPC 76/3/5 (Estonia et al.), proposing an addition to the text of regulation 28.1 to permit exclusions for ice-classed ships when sailing in ice conditions.

3.7 Following discussion, the Committee did not agree to the proposal for an exclusion for ice-classed ships **in the draft amendments to MARPOL Annex VI** and decided that this matter should be considered as part of the ongoing discussion with regard to correction factors/voyage exclusions taking place in the Intersessional Working Group on Reduction of GHG Emissions from Ships, which should be addressed in the guidelines on the application of the CII that were to be developed.

3.8 The Committee considered documents MEPC 76/3/6 (Brazil et al.) and MEPC 76/3/8 (United States) together, as both proposed amendments to regulation 28.3, as well as the proposed text, prepared by the Chair together with the Secretariat, aimed at consolidating both proposals. The Committee noted that the Chair had proposed the following text for regulation 28.3:

"Notwithstanding paragraphs 1 and 2 of this regulation, in the event of any transfer of a ship addressed in regulations 27.4, 27.5 or 27.6 completed after 1 January 2023, a ship shall, after the end of the calendar year in which the transfer takes place, calculate and report the attained annual operational CII for the full 12-month period from 1 January to 31 December in the calendar year during which the transfer took place, in accordance with regulations 28.1 and 28.2, for verification in accordance with regulation 6.6 of this Annex, taking into account guidelines to be developed by the Organization. A ship shall not be assigned an operational carbon intensity rating for a partial year. Nothing in this regulation relieves any ship of their reporting obligations under regulation 27 or this regulation of this Annex."

3.9 Having considered the proposals, the Committee agreed in principle with the compromise text prepared by the Chair, recognizing however that there were still a number of elements that should be clarified to avoid any ambiguity in application.

3.10 The Committee noted the concerns raised by the observer from BIMCO with regard to particular cases that were not adequately covered by the proposed modifications to the text with respect to the calculation of the CII, notably for a new ship delivered after 1 January in a year; or a ship purchased at a judiciary sale, where no information followed the ship; or a ship where the Administration responsible for calculating the CII after 31 December did not verify the data submitted for the entirety of the previous year and did not receive a copy of that data at the time of transfer from the previous Administration.

3.11 While a number of delegations noted that these matters could not be fully resolved within the text of regulation 28.3 under consideration and instead would need to be clarified in more detail within the guidelines referred to in the same regulation which were to be developed, the Committee agreed that some further clarification to address the identified issues was required within the regulation itself. Consequently, the Committee agreed to refer the text, proposed by the Chair, together with the issues raised in plenary to the virtual Drafting Group to address as part of its work.

3.12 While noting that there was no clear agreement on the proposed consequential modifications set out in document MEPC 76/3/6, as a result of the further modifications to the text of regulation 28.3, the Committee also referred these to the virtual Drafting Group to address since these proposals were deemed to be editorial in nature.

3.13 The Committee agreed in general with the amendments to regulations 5, 6, 22, other parts of 28, and appendix X (Form of Statement of Compliance – Fuel Oil Consumption Reporting and Operational Carbon Intensity Rating) proposed in document MEPC 76/3/6 and referred them to the Drafting Group for further detailed consideration.

3.14 The Committee considered and agreed to the proposals set out in document MEPC 75/3/9 (IMarEST) suggesting a number of editorial modifications to harmonize the text of the consolidated draft 2021 revised MARPOL Annex VI. Having noted that these were purely editorial, the Committee referred the document to the virtual Drafting Group to consider in the preparation of the final text of the amendments.

3.15 The Committee, having considered two options for referencing the Code for recognized organizations (RO Code) under MARPOL Annex VI as a consequence of revoking of resolutions A.739(18) and A.789(19), as set out in paragraphs 6 and 7 of document MEPC 76/3, agreed to option 1: to replace the existing footnote or add a new footnote in regulations 5.3.1, 6.3, 6.5, 6.7, 22.1, 23.1 and 27.5 in the draft 2021 revised MARPOL Annex VI with the following text:

"Refer to the Code for Recognized Organizations (RO Code), as adopted by the Organization by resolution MEPC.237(65), as may be amended by the Organization"

3.16 Having decided on the aforementioned proposals, the Committee confirmed the contents of the requisite resolution and agreed that the deemed acceptance date would be 1 May 2022 and the date of entry into force of the amendments would be 1 November 2022.

3.17 Having decided on the respective modifications to the draft amendments, the Committee instructed the virtual Drafting Group to prepare the final text of the requisite MEPC resolution together with the amendments to MARPOL Annex VI, taking into account the decisions taken in plenary, for the Committee's consideration and adoption.

Draft amendments to MARPOL Annex I

3.18 The Committee recalled that MEPC 75 had approved draft amendments to MARPOL Annex I regarding the prohibition on the use and carriage for use as fuel of heavy fuel oil by ships in Arctic waters, with a view to adoption, as set out in the annex to document MEPC 76/3/1.

3.19 The Committee noted that one commenting document had been submitted, i.e. document MEPC 76/3/10 (FOEI et al.), related to this amendment, raising concerns with regard to provisions for exemptions and waivers set out in paragraphs 2 and 4 of the proposed amendment to regulation 43 of MARPOL Annex I and proposing that these be deleted from the text of the amendments to ensure adequate protection of the Arctic marine environment. The document further proposed that, should the waiver provision remain, such waivers only be issued in exceptional circumstances.

3.20 The Committee recalled that it had considered a similar proposal by FOEI et al. at MEPC 75 (MEPC 75/10/7) but had proceeded to approve the draft amendments to MARPOL Annex I, as contained in document MEPC 76/3/1, recognizing that they represented a delicate compromise which had been reached following careful consideration and negotiations at the PPR Sub-Committee, where the views and concerns of the many stakeholders affected by the amendments had been taken into account. Consequently, the Committee did not agree with the proposal in document MEPC 76/3/10.

3.21 Following discussion, the Committee confirmed the contents of the requisite resolution, agreed that the deemed acceptance date would be 1 May 2022 and the date of entry into force of the amendments would be 1 November 2022, and instructed the virtual Drafting Group to prepare the final text of the requisite MEPC resolution together with the amendments to MARPOL Annex I, based on the text of the amendments contained in document MEPC 76/3/1.

Draft amendments to MARPOL Annexes I and IV

3.22 The Committee recalled that MEPC 75 had approved draft amendments to MARPOL Annexes I and IV concerning the exemption of UNSP barges from survey and certification requirements, as set out in the annex to document MEPC 76/3/2.

3.23 The Committee confirmed the contents of the requisite resolution, agreed that the deemed acceptance date would be 1 May 2022 and the date of entry into force of the amendments of 1 November 2022, and instructed the virtual Drafting Group to prepare the final text of the requisite MEPC resolution together with the amendments to MARPOL Annexes I and IV.

Draft amendments to the AFS Convention

3.24 The Committee recalled that MEPC 75 had approved draft amendments to the AFS Convention concerning controls on cybutryne and the form of the IAFSC, with a view to adoption at this session, as set out in the annex to document MEPC 76/3/3.

3.25 The Committee, having considered the proposal contained in the commenting document submitted by China et al. (MEPC 76/3/7) for the addition of a new column to the table set out in appendix 1 to Annex 4 of the Convention, agreed that it provided additional clarity in the form for those ships that had applied an anti-fouling system containing cybutryne previously, but where such a system was not currently contained in the external coating layer of their hulls or external parts or surfaces.

3.26 The Committee, having considered the proposals in document MEPC 76/3/3 concerning the reference to the RO Code under the AFS Convention, and, in line with its decision with respect to referencing the RO Code in MARPOL Annex VI (see paragraph 3.15), agreed to replace the existing footnote in regulation 1(4)(b) by the following:

"Refer to the Code for Recognized Organizations (RO Code), as adopted by the Organization by resolution MEPC.237(65), as may be amended by the Organization".

3.27 Having decided on the proposals, the Committee confirmed the contents of the requisite resolution and agreed that the deemed acceptance date would be 1 July 2022 and date of entry into force of the amendments would be 1 January 2023.

3.28 The Committee instructed the virtual Drafting Group to prepare the final text of the requisite MEPC resolution, together with the amendments to the AFS Convention for the Committee's consideration and adoption.

Establishment of the virtual Drafting Group on Amendments to Mandatory Instruments

3.29 The Committee established the virtual Drafting Group on Amendments to Mandatory Instruments and instructed it, taking into account comments, proposals and decisions made in plenary, to prepare:

- .1 the final text of the draft amendments to MARPOL Annex VI concerning mandatory goal-based technical and operational measures to reduce carbon intensity of international shipping and exemption of UNSP barges from survey and certification requirements in the form of a revised consolidated MARPOL Annex VI;
- .2 the final text of the draft amendments to MARPOL Annex I concerning the prohibition on the use and carriage for use as fuel of heavy fuel oil by ships in Arctic waters;
- .3 the final text of the draft amendments to MARPOL Annexes I and IV concerning the exemption of UNSP barges from survey and certification requirements;
- .4 the final text of the draft amendments to the AFS Convention concerning controls on cybutryne and the form of the IAFSC; and
- .5 the final text of the draft MEPC circular on the guidelines for exemption of UNSP barges from the survey and certification requirements under the MARPOL Convention.

Report of the virtual Drafting Group

3.30 Having considered the report of the virtual Drafting Group (MEPC 76/WP.5 and MEPC 76/WP.5/Add.1), the Committee approved it in general and took action as indicated below.

Amendments to MARPOL Annex VI

3.31 In considering the final text of the draft amendments to MARPOL Annex VI, as prepared by the Drafting Group, the Committee:

- .1 noted the Group's revision of the text of regulation 28.3 and the associated footnote, based on the draft prepared by the Chair and referred to the Group (see paragraph 3.8);
- .2 noted the Group's revisions to the text of regulations 6.6 to 6.8 related to the Statement of Compliance, and regulation 26 related to the SEEMP, to bring these in line with the agreed changes to regulation 28.3;
- .3 agreed to the Group's proposed new paragraph 11 in regulation 27, which was aimed at addressing the need to grant access to an Administration of a ship to which regulation 28 applied, to all reported data for the previous calendar year for the purposes of the CII calculation;
- .4 noted that the Group was unable to address the matter related to the transfer of a company during the year as part of its work and agreed that this matter be added to the terms of reference of the Correspondence Group on Carbon Intensity Reduction for its consideration in the context of developing appropriate guidance on the CII calculation in the case of a transfer of Administration or company;
- .5 having noted that appendix IX had a provision for including EEDI information on the form, but that there was no similar provision for the inclusion of EEXI information, invited interested Member States and international organizations to consider the need for a future amendment;

- .6 in view of the significant renumbering of regulations and paragraphs in the amendments to MARPOL Annex VI, requested the Secretariat to consider the publication of a revised consolidated MARPOL Annex VI, including cross-referencing tables to the previous version; and
- .7 agreed to the revised text on the requisite resolution for the adoption of the revised MARPOL Annex VI, as set out in the annex to document MEPC 76/WP.5/Add.1.

3.32 The Committee adopted resolution MEPC.328(76) on amendments to MARPOL Annex VI concerning mandatory goal-based technical and operational measures to reduce carbon intensity of international shipping and exemption of UNSP barges from survey and certification requirements, as part of the fully consolidated 2021 revised MARPOL Annex VI, as set out in annex 1.

3.33 In adopting resolution MEPC.328(76), the Committee determined, in accordance with article 16(2)(f)(iii) of MARPOL, that the adopted amendments to MARPOL Annex VI shall be deemed to have been accepted on 1 May 2022 (unless, prior to that date, objections are communicated to the Secretary-General of the Organization, as provided for in article 16(2)(f)(iii) of the Convention) and shall enter into force on 1 November 2022, in accordance with article 16(2)(g)(ii) of the Convention.

3.34 As requested, the text of the statement made by the delegation of Portugal is set out in annex 20.

Amendments to MARPOL Annex I

3.35 The Committee considered the final text of the draft amendments to MARPOL Annex I regarding the prohibition on the use and carriage for use as fuel of heavy fuel oil by ships in Arctic waters, and adopted the amendments by resolution MEPC.329 (76), as set out in annex 2.

3.36 In adopting resolution MEPC.329(76), the Committee determined, in accordance with article 16(2)(f)(iii) of MARPOL, that the adopted amendments to MARPOL Annex I shall be deemed to have been accepted on 1 May 2022 (unless, prior to that date, objections are communicated to the Secretary-General of the Organization, as provided for in article 16(2)(f)(iii) of the Convention) and shall enter into force on 1 November 2022, in accordance with article 16(2)(g)(ii) of the Convention.

Amendments to MARPOL Annexes I and IV

3.37 The Committee considered the final text of the draft amendments to MARPOL Annexes I and IV concerning the exemption of UNSP barges from certain survey and certification requirements, as prepared by the virtual Drafting Group.

3.38 In this context, the Committee noted an intervention by the delegation of the Marshall Islands who, in referring to the amendments to regulation 7.4 of MARPOL Annex VI, which provided that UNSP Exemption Certificate shall not be issued to a ship which was entitled to fly the flag of a State which was not a Party, suggested that same amendments should be made to regulation 8.4 of MARPOL Annex I and regulation 6.4 of MARPOL Annex IV for the reason of consistency.

3.39 The Committee agreed to the proposal by the delegation of the Marshall Islands and instructed the Secretariat to effect those amendments when preparing the final text of the amendments.

3.40 Subsequently, the Committee adopted resolution MEPC.330(76) on amendments to MARPOL Annexes I and IV concerning the exemption of UNSP barges from certain survey and certification requirements, as set out in annex 3.

3.41 In adopting resolution MEPC.330(76), the Committee determined, in accordance with article 16(2)(f)(iii) of MARPOL, that the adopted amendments to MARPOL Annexes I and IV shall be deemed to have been accepted on 1 May 2022 (unless, prior to that date, objections are communicated to the Secretary-General of the Organization, as provided for in article 16(2)(f)(iii) of the Convention) and shall enter into force on 1 November 2022, in accordance with article 16(2)(g)(ii) of the Convention.

Amendments to the AFS Convention

3.42 The Committee considered the final text of the draft amendments to the AFS Convention concerning controls on cybutryne and the form of the IAFSC, and adopted the amendments by resolution MEPC.331(76), as set out in annex 4.

3.43 In adopting resolution MEPC.331 (76), the Committee determined, in accordance with article 16(2)(e)(ii) of the AFS Convention, that the adopted amendments shall be deemed to have been accepted on 1 July 2022 (unless, prior to that date, objections are communicated to the Secretary-General of the Organization, as provided for in article 16(2)(e)(ii) of the Convention) and shall enter into force on 1 January 2023, in accordance with article 16(2)(f)(ii) of the Convention.

Guidelines for exemption of UNSP barges from certain survey and certification requirements under the MARPOL Convention

3.44 The Committee approved the final text of the *Guidelines for exemption of UNSP barges from certain survey and certification requirements under the MARPOL Convention* and instructed the Secretariat to disseminate the guidelines as MEPC.1/Circ.892.

3.45 In this connection, the Committee noted the view of the virtual Drafting Group that the above-mentioned guidelines did not provide guidance on where the exemption certificates should be located when a UNSP barge was not being either pushed or towed.

Instructions to the Secretariat

3.46 In adopting the aforementioned amendments, the Committee authorized the Secretariat, when preparing the authentic texts, to make any editorial corrections that might be identified as appropriate, including updating references to renumbered paragraphs, and to bring to the attention of the Committee any errors or omissions requiring action by the Parties to MARPOL and the AFS Convention.

4 HARMFUL AQUATIC ORGANISMS IN BALLAST WATER

MATTERS CONSIDERED BY CORRESPONDENCE PRIOR TO THE VIRTUAL MEETING

4.1 In accordance with the arrangements of the remote session, as outlined in document MEPC 76/1/1 (paragraphs 14 to 17) and its annex 2 (section 2 on agenda item 4), the Committee considered by correspondence, prior to the virtual meeting, the following documents:

- .1 MEPC 76/4/1 (ISO), providing an update on standardization work for a verification testing protocol for compliance monitoring devices;
- .2 MEPC 76/4/3 (Secretariat), providing an update on the experience-building phase associated with the Ballast Water Management Convention;
- .3 MEPC 76/INF.3 (Viet Nam), providing information on the type approval of the Alfa Laval PureBallast 3.2 ballast water management system;
- 4 MEPC 76/INF.4 (Viet Nam), providing information on the type approval of the Thao Linh Development Maritime Technology Co. Ltd. Ballast Water Management System;
- .5 MEPC 76/INF.6 (United Kingdom), providing information on the type approval of the De Nora Marine Technologies, LLC BALPURE® Ballast Water Management System;
- .6 MEPC 76/INF.13 (Norway), providing information on the type approval of the BWMS inTank BWTS;
- .7 MEPC 76/INF.14 (Norway), providing information on the type approval of the BWMS oneTank;
- .8 MEPC 76/INF.15 (Norway), providing information on the type approval of the Optimarin Ballast System;
- .9 MEPC 76/INF.18 (Norway), providing information on the type approval of the Wärtsilä Aquarius UV BWMS;
- .10 MEPC 76/INF.19 (France), providing information on the type approval of the BIO-SEA® Ballast Water Treatment System manufactured by BIO-UV Group;
- .11 MEPC 76/INF.20 (INTERTANKO), providing comments on entries in the ballast water record book;
- .12 MEPC 76/INF.26 (Singapore), providing information on the type approval of the Semb-Eco ballast water management system;
- .13 MEPC 76/INF.34 (Japan), providing information on the type approval of the Miura BWMS ballast water management system manufactured by MIURA CO., LTD.;
- .14 MEPC 76/INF.35 (Japan), providing information on the type approval of the Miura BWMS ballast water management system manufactured by MIURA CO., LTD.;
- .15 MEPC 76/INF.36 (Japan), providing information on the type approval of the Miura BWMS ballast water management system manufactured by MIURA CO., LTD.;
- .16 MEPC 76/INF.37 (Japan), providing information on the type approval of the JFE BallastAce ballast water management system manufactured by JFE Engineering Corporation;

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- .17 MEPC 76/INF.46 (China), providing an introduction on a rapid detailed method for assessing the viability of 10-50 µm phytoplankton in ballast water;
 - .18 MEPC 76/INF.47 (Norway), providing information on the type approval of the ECS HYCHLOR™ ballast water management system;
 - .19 MEPC 76/INF.48 (Norway), providing information on the type approval of the Ecochlor® ballast water management system;
 - .20 MEPC 76/INF.49 (Norway), providing information on the type approval of the Wärtsilä Aquarius EC ballast water management system;
 - .21 MEPC 76/INF.50 (Norway), providing information on the type approval of the ATPS BLUEsys ballast water management system;
 - .22 MEPC 76/INF.51 (Norway), providing information on the type approval of the SKF BlueSonic ballast water management system;
 - .23 MEPC 76/INF.52 (Norway), providing information on the type approval of the Seascope ballast water management system;
 - .24 MEPC 76/INF.53 (Norway), providing information on the type approval of the NGT ballast water management system;
 - .25 MEPC 76/INF.54 (Norway), providing information on the type approval of the KURITA ballast water management system;
 - .26 MEPC 76/INF.55 (Norway), providing information on the type approval of the Trojan Marinex BWT™ ballast water management system;
 - .27 MEPC 76/INF.56 (Australia), containing the findings from a study evaluating the performance of ballast water management systems installed on board ships against the D-2 performance standard of the Ballast Water Management Convention;
 - .28 MEPC 76/INF.57 (China), providing information on the type approval of the PACT marine Ballast Water Management System;
 - .29 MEPC 76/INF.58 (China), providing information on the type approval of the LeesGreen® Ballast Water Management System;
 - .30 MEPC 76/INF.59 (China), providing information on the type approval of the Cyeco Ballast Water Management System;
 - .31 MEPC 76/INF.62 (Norway), providing information on the type approval of the KBAL BWMS ballast water management system;
 - .32 MEPC 76/INF.66 (China), providing information on the type approval of the BSKY™ Ballast Water Management System; and
 - .33 MEPC 75/3/5 (China), deferred from MEPC 75, providing comments on the draft amendments to the BWM Convention with regard to the form of the International Ballast Water Management Certificate.

4.2 During the virtual meeting, the Committee reconfirmed the endorsement of the Chair's proposals in annex 2 to document MEPC 76/1/1, as set out in the following paragraphs 4.3 to 4.7.

Verification of compliance monitoring devices

4.3 The Committee instructed the PPR Sub-Committee to consider document MEPC 76/4/1 (ISO), in the context of the consideration of a protocol for the verification of compliance monitoring devices (CMDs) under agenda item 19 (Any other business), and to advise the Committee accordingly.

Experience-building phase

4.4 The Committee noted the information provided in document MEPC 76/4/3 (Secretariat) and encouraged Administrations wishing to submit data to the experience-building phase (EBP), as well as other stakeholders with potential complementary data, to liaise with the World Maritime University (WMU) at ebp21@wmu.se to facilitate data submission and gathering.

Form of the International Ballast Water Management Certificate

4.5 The Committee instructed the PPR Sub-Committee to consider document MEPC 75/3/5 (China), under agenda item 16 (Unified interpretation to provisions of IMO environment-related conventions), and to advise the Committee accordingly.

Type approval of ballast water management systems

4.6 The Committee noted the information regarding type-approved ballast water management systems provided in documents MEPC 76/INF.3 and MEPC 76/INF.4 (Viet Nam), MEPC 76/INF.6 (United Kingdom), MEPC 76/INF.13, MEPC 76/INF.14, MEPC 76/INF.15 and MEPC 76/INF.18 (Norway), MEPC 76/INF.19 (France), MEPC 76/INF.26 (Singapore), MEPC 76/INF.34, MEPC 76/INF.35, MEPC 76/INF.36 and MEPC 76/INF.37 (Japan), MEPC 76/INF.47, MEPC 76/INF.48, MEPC 76/INF.49, MEPC 76/INF.50, MEPC 76/INF.51, MEPC 76/INF.52, MEPC 76/INF.53, MEPC 76/INF.54 and MEPC 76/INF.55 (Norway), MEPC 76/INF.57, MEPC 76/INF.58 and MEPC 76/INF.59 (China), MEPC 76/INF.62 (Norway) and MEPC 76/INF.66 (China).

Information on other matters related to the implementation of the BWM Convention

4.7 The Committee noted the information contained in documents MEPC 76/INF.20 (INTERTANKO) on entries in the ballast water record book, MEPC 76/INF.46 (China) on a rapid detailed method for assessing the viability of 10-50 µm phytoplankton in ballast water, and MEPC 76/INF.56 (Australia) on a study evaluating the performance of ballast water management systems installed on board ships against the D-2 standard.

MATTERS DEFERRED TO MEPC 77

Application of the BWM Convention to specific ship types

4.8 As proposed in document MEPC 76/1/1 (annex 3), the Committee agreed to defer the consideration of documents MEPC 75/4/7 (Australia et al.), MEPC 75/4/8 (Russian Federation), MEPC 74/4/13 (Russian Federation), and MEPC 74/4/18, MEPC 74/4/19 and MEPC 74/4/20 (Turkey) to MEPC 77.

Application of the BWM Convention to ships operating at ports with challenging water quality

4.9 As proposed in document MEPC 76/1/1 (annex 3), the Committee agreed to defer the consideration of documents MEPC 76/4 and Corr.1 (Liberia), MEPC 76/4/4 (China), MEPC 76/4/5 (Republic of Korea), 76/4/6 (Norway), MEPC 76/4/7 (INTERTANKO) and MEPC 76/4/8 (Marshall Islands) to MEPC 77.

Review of the ballast water record book

4.10 As proposed in document MEPC 76/1/1 (annex 3), the Committee agreed to defer the consideration of document 76/4/2 (Liberia et al.) to MEPC 77.

5 AIR POLLUTION PREVENTION**MATTERS CONSIDERED BY CORRESPONDENCE PRIOR TO THE VIRTUAL MEETING**

5.1 In accordance with the arrangements of the remote session, as outlined in document MEPC 76/1/1 (paragraphs 14 to 17) and its annex 2 (section 3 on agenda item 5), the Committee considered by correspondence, prior to the virtual meeting, the following documents:

- .1 MEPC 76/5/2 (Secretariat), providing the summary of information reported to IMO related to the implementation of the global 0.50% sulphur limit from 1 January 2020 (IMO2020) and presenting the outcomes of the sulphur monitoring programme for 2020;
- .2 MEPC 76/INF.64 (ICOMIA), providing an update on the availability of Tier III NO_x compliant engines for large yachts greater than 24 m load-line length and less than 500 gross tonnes; and
- .3 MEPC 76/INF.71 (Tokyo MOU), providing summarized information on the results of inspections by port State control (PSC) related to the global 0.50% sulphur limit (IMO2020) requirements, conducted by Tokyo MOU member Authorities.

5.2 During the virtual meeting, the Committee reconfirmed the Chair's proposals in annex 2 to document MEPC 76/1/1, as set out in the following paragraphs 5.3 to 5.5.

IMO monitoring programme of the worldwide average sulphur content of fuel oils supplied

5.3 The Committee noted the relevant information provided in document MEPC 76/5/2 (Secretariat) related to the implementation of IMO 2020 as well as the outcome of the monitoring of the worldwide average sulphur content of residual and distillate fuel oils supplied for use on board ships through 2020.

5.4 The Committee noted the information in document MEPC 76/INF.71 (Tokyo MOU) providing the summary of information on port State control (PSC) of the 2020 sulphur limit (IMO 2020) requirements conducted by Tokyo MOU member Authorities.

MARPOL Annex VI NO_x Tier III requirements for large yachts

5.5 The Committee noted the information in document MEPC 76/INF.64 (ICOMIA) providing an update on the availability of Tier III NO_x compliant engines for large yachts greater than 24 m load-line length and less than 500 gross tonnage.

MATTERS CONSIDERED DURING THE VIRTUAL MEETING

5.6 The Committee recalled that, as indicated in paragraph 11.3 and annex 1 of document MEPC 76/1/1, under agenda items 5 and 6, the Chair had proposed to focus on the report of the Correspondence Group on Air Pollution and Energy Efficiency, which was established by MEPC 75 (MEPC 75/18, paragraphs 5.13 and 5.14) and the report by the Secretariat on the fuel oil consumption data submitted to the IMO Ship Fuel Oil Consumption Database in GISIS.

Report of the Correspondence Group on Air Pollution and Energy Efficiency

5.7 Having noted the discussion of the Correspondence Group on Air Pollution and Energy Efficiency, as summarized in document MEPC 76/5/1, the Committee considered the actions requested of it in paragraph 49 of the report of the Correspondence Group and took action as outlined in the following paragraphs 5.8 to 5.24.

Licence for fuel oil supply

5.8 During the consideration of the proposed amendments to the *Guidance for best practice for Member State/coastal State* (MEPC.1/Circ.884) set out in annex 1 to document MEPC 76/5/1, the observer from IBIA, supported by the delegation of the United States, proposed that the word "should" in paragraph 4.3.2 of the draft guidance be replaced by "could" or "may" to more clearly indicate that the bunker licence set out in the appendix to the draft guidance was an indicative example and that it was at the discretion of Member States or other relevant authorities to adapt should they choose to do so.

5.9 The Committee, having recognized that the word "should" in paragraph 4.3.2 of the draft guidance should not be construed as prescriptive, agreed not to change "should" to "could". The Committee approved the proposed amendments to the *Guidance for best practice for Member State/coastal State* (MEPC.1/Circ.884) set out in annex 1 to document MEPC 76/5/1, and instructed the Secretariat to revise MEPC.1/Circ.884 accordingly for dissemination as circular MEPC.1/Circ.884/Rev.1.

Proxy for offshore and marine contracting vessels and cruise passenger ships.

5.10 With regard to the way forward for determining proxies of offshore and marine contracting vessels and cruise passenger ships, the Committee had for its consideration:

- .1 the proposal by the Correspondence Group, as described in paragraphs 16 and 21 of document MEPC 76/5/1; and
- .2 document MEPC 76/5/3 (IMCA), expressing concerns that voluntary submission of data for offshore and marine contracting vessels might lead to inadequate quality control and proposing instead that industry organizations, like IMCA, could submit data to IMO on behalf of its members on an annual basis during the stage of data collection before one proxy was selected to assess the suitability of the proxies.

5.11 The Committee agreed in principle to the way forward for determining proxies for offshore and marine contracting vessels and cruise passenger ships, as proposed by the Correspondence Group in paragraphs 16 and 21 of document MEPC 76/5/1, while noting the proposals in document MEPC 76/5/3 (IMCA), namely:

- .1 that the reporting to the Organization via email should be preferably done via Member States and relevant industry organizations; and
- .2 for offshore and marine contracting vessels, to collect "total yearly running hours on all engines" and "total installed rated power from all engines in kW" in addition to the IMO DCS data, if applicable, for trial on a voluntary basis.

5.12 The Committee noted an intervention by the observer from IMCA referring to documents MEPC 74/6 and MEPC 74/INF.35 (the Russian Federation and IMCA), advising that they had already collected data regarding the two proxies for offshore and marine contracting vessels on behalf of its members, which they were invited to share with the Secretariat.

5.13 Having noted that there was overlapping work with agenda item 7 with regard to the submission of additional parameters by ships for voluntary CII reporting as had been discussed during ISWG-GHG 8, the Committee agreed to forward the above-mentioned proposals to the Correspondence Group on Carbon Intensity Reduction, which was established at this session under agenda item 7, with a view to developing possible parameters and templates for reporting, verification and submission of data for trial CIIs of individual ships on a voluntary basis, including trial proxies for offshore and marine contracting vessels and cruise passenger ships, taking into account documents MEPC 76/5/1 and MEPC 76/5/3.

Performance indicators

5.14 The Committee concurred with the view of the Correspondence Group that all potential performance indicators (PIs), as set out in annex 3 to document MEPC 76/5/1, should be kept for further consideration, and noted that some of the PIs proposed by the Correspondence Group could not be obtained from the data currently collected pursuant to regulation 27 of MARPOL Annex VI.

Shaft/Engine Power Limitation concept

5.15 The Committee approved the work plan to progress the work on the Shaft/Engine Power Limitation concept, as set out in annex 4 to document MEPC 76/5/1.

5.16 In this context, the Committee noted the preliminary consideration on the possible items to be covered by the possible "guidelines on the Shaft/Engine Power Limitation System to comply with the EEDI requirements", as tentatively summarized in paragraph 29 of document MEPC 76/5/1, and the need to continue consideration on substantial content of the aforementioned possible guidelines.

Revision of the interim minimum power guidelines

5.17 The Committee considered the draft amendments to the *2013 Interim guidelines for determining minimum propulsion power to maintain the manoeuvrability of ships in adverse conditions* (MEPC.1/Circ.850/Rev.2), as prepared by the Correspondence Group and set out in annex 5 to document MEPC 76/5/1, in conjunction with document MEPC 76/5/4 (Republic of Korea) commenting on the Correspondence Group's discussion on ship forward speed and proposing that the forward speed provided in the draft revised guidelines be further considered

with a conservative approach, such as 4.0 knots, taking into account the comparison between the required propulsion power across under the existing simplified assessment (existing assessment level 2) and under the proposed new minimum power assessment (new assessment level 2) presented in document MEPC 76/5/4.

5.18 The Committee noted an intervention by the delegation of the Republic of Korea, supported by the observer from INTERCARGO referring to document MEPC 76/5/4, expressing their concern in respect of safety of ships under the revised guidelines as their calculations showed that the revised guidelines would require less minimum propulsion power compared to under the existing interim guidelines, and expressed the view that further consideration was needed to finalize the revised guidelines at a future session.

5.19 In this regard the Committee also noted an intervention by the delegation of Japan, supporting the revised guidelines as developed by the Correspondence Group, and stating that the analysis shown in document MEPC 76/5/4 was inappropriate as it was not only the required minimum propulsion power that should be compared but also other technical considerations needed to be considered, such as measuring the manoeuvrability of a ship. The Committee also noted that the ship forward speed had been discussed in the Correspondence Group and no technical justification in terms of negative impact on safety of navigation had been submitted.

5.20 Following consideration, and having taken into account the urgency to complete the work on the revised Guidelines, the Committee approved the amendments to the *2013 Interim guidelines for determining minimum propulsion power to maintain the manoeuvrability of ships in adverse conditions* (MEPC.1/Circ.850/Rev.2), including the change of title to "Guidelines for determining minimum propulsion power to maintain the manoeuvrability of ships in adverse conditions", as prepared by the Correspondence Group (MEPC 76/6/1, annex 5) without modification, and instructed the Secretariat to revise MEPC.1/Circ.850/Rev.2 accordingly, for dissemination as circular MEPC.1/Circ.850/Rev.3.

5.21 The Committee also agreed to keep the Guidelines under review and invited Member States and international organizations to report on the experiences gained in the implementation of the Guidelines, including further consideration of forward ship speed, as proposed in document MEPC 76/5/4 (Republic of Korea), to a future session of the Committee.

Amendments to the 2018 Guidelines on the method of calculation of the attained Energy Efficiency Design Index (EEDI) for new ships

5.22 The Committee adopted resolution MEPC.332(76) on *Amendments 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 by resolution MEPC.322(74)), as set out in annex 5.

Amendment to unified interpretation on the dates related to EEDI Phase 2 and 3 for new ships

5.23 The Committee approved the updated unified interpretation clarifying the dates related to EEDI Phase 2 and 3 for "new ships" following the entry into force of the amendments on the early application of EEDI Phase 3 for certain ship types as set out in table 1 of regulation 21 of MARPOL Annex VI (resolution MEPC.324(75)), as set out in annex 6, and instructed the Secretariat to revise MEPC.1/Circ.795/Rev.4 accordingly, for dissemination as MEPC.1/Circ.795/Rev.5.

Clarification of criteria of ship types subject to "Attained EEDI" and "Required EEDI"

5.24 The Committee noted that the Correspondence Group, having taken into account document MEPC 74/5/14 (Republic of Korea), had not identified a specific need to clarify the ship types that were subject to the provisions for "Attained EEDI" and "Required EEDI" in accordance with chapter 4 of MARPOL Annex VI.

MATTERS DEFERRED TO MEPC 77

5.25 As proposed in document MEPC 76/1/1 (annex 3), the Committee agreed to defer the consideration of documents MEPC 76/5/5 (Austria et al.), MEPC 75/5 (Secretariat), MEPC 75/5/Add.1 (Secretariat), MEPC 75/5/1 (Secretariat), MEPC 75/5/3 (Republic of Korea), MEPC 75/INF.4 (Secretariat) and MEPC 75/INF.9 (Secretariat) to MEPC 77.

6 ENERGY EFFICIENCY OF SHIPS

Matters considered by correspondence prior to the virtual meeting

6.1 In accordance with the arrangements of the remote session, as outlined in document MEPC 76/1/1 (paragraphs 14 to 17) and its annex 2 (section 4 on agenda item 6), the Committee considered by correspondence, prior to the virtual meeting, the following documents:

- .1 MEPC 76/6/4 (IACS and ASEF), introducing the background information on issuing the "2020 industry guidelines for calculation and verification of the Energy Efficiency Design Index (EEDI)", a copy of which is set out in the annex to document MEPC 76/INF.28, including the explanation on changes from the 2015 industry guidelines;
- .2 MEPC 76/INF.2 (Secretariat), providing the ninth summary of data and graphical representations of the information in the EEDI database;
- .3 MEPC 76/INF.28 (IACS and ASEF), containing, in the annex, a copy of the 2020 industry guidelines for calculation and verification of the Energy Efficiency Design Index (EEDI); and
- .4 MEPC 76/INF.40 (Republic of Korea), providing information developed by a joint research group of the Republic of Korea with a view to completing the *Interim guidelines for the calculation of the coefficient f_w for decrease in ship speed in a representative sea condition for trial use*.

6.2 During the virtual meeting, the Committee reconfirmed the Chair's proposals in annex 2 to document MEPC 76/1/1, as set out in the following paragraphs 6.3 to 6.5.

Industry guidelines on calculation and verification of EEDI

6.3 The Committee noted the 2020 industry guidelines on calculation and verification of Energy Efficiency Design Index (EEDI) set out and discussed in documents MEPC 76/6/4 and MEPC 76/INF.28 (IACS and ASEF).

Status of technological development of the EEDI database

6.4 The Committee noted the information in document MEPC 76/INF.2 (Secretariat) providing the ninth summary of data and graphical representations of the information in the EEDI database.

Calculation of the coefficients f_w

6.5 The Committee noted the information in document MEPC 76/INF.40 (Republic of Korea) provided with a view to completing the *Interim guidelines for the calculation of the coefficient f_w for decrease in ship speed in a representative sea condition for trial use (MEPC.1/Circ.796)*.

Matters considered during the virtual meeting

Report of fuel oil consumption data submitted to the IMO Ship Fuel Oil Consumption Database in GISIS

6.6 The Committee recalled that amendments to MARPOL Annex VI for the data collection system for fuel oil consumption of ships entered into force on 1 March 2018 and that, in accordance with regulation 27.10 of MARPOL Annex VI, the Secretary-General of the Organization shall produce an annual report to the Committee.

6.7 The Committee also recalled that the *2017 Guidelines for the development and management of the IMO Ship Fuel Oil Consumption Database* (resolution MEPC.293(71)), which described the information to be included in the report, had been adopted at MEPC 71.

6.8 In this regard the Committee considered document MEPC 76/6/1 (Secretariat) providing the report of the fuel oil consumption data for the period from 1 January 2019 until 31 December 2019, and noted in particular that:

- .1 in January 2019, the Secretariat had estimated that 32,511 ships, under 135 Administrations, could potentially fall under the scope of regulation 27 of MARPOL Annex VI;
- .2 data for reporting year 2019 were submitted by 107 Administrations, consisting of 72 Parties to MARPOL Annex VI and 35 non-Parties, for 27,221 ships in total out of a potential 32,511 (83.7%) and that, on the basis of gross tonnage, the reported data represented 93.0% of the ships that were estimated to fall under the scope of regulation 27 of MARPOL Annex VI;
- .3 just over 213 million tonnes of fuel were used in 2019 in total on a quantity basis: 80.5% of the fuel oil used during 2019 was heavy fuel oil (HFO), and 11.3% was diesel/gas oil (MDO/MGO) and 3.3% was light fuel oil (LFO), meaning that more than 95% of the fuel oil used during 2019 was conventional fuel oil; and
- .4 the majority of fuel oil was consumed by three ship types: bulk carriers, tankers, containerships; in addition, 10 million tonnes (4.9%) of liquefied natural gas (LNG), mainly used by gas carriers and LNG carriers, was reported; and the remaining minority fuel oil types reported were ethanol, methanol, LPG and biofuel.

6.9 The Committee also noted that, following the analysis and verification of the 2019 fuel consumption data, the Secretariat had proposed a number of improvements to the reporting process and the Ship Fuel Oil Consumption module in GISIS as set out in paragraph 21 of document MEPC 76/6/1, inter alia:

- .1 updating the hourly limit when inputting "hours under way" in GISIS;
- .2 including further instructions for Administrations and recognized organizations to ensure reporting in the appropriate ship type category;
- .3 considering amending the *2018 Guidelines on the method of calculation of the attained Energy Efficiency Design Index (EEDI) for new ships* (resolution MEPC.308(73)) to include ethane and biofuel; and
- .4 with regard to reporting biofuels under the "Other" category, user defined CF values should be calculated based on their chemical properties and CO₂ emissions in operation to allow for comparisons with the CF values defined in resolution MEPC.308(73).

6.10 Subsequently, the Committee instructed the Secretariat to continue to maintain the Ship Fuel Oil Consumption module in GISIS and authorized the Secretariat to proceed with implementing improvements to the reporting process and the module in GISIS.

6.11 The Committee noted the confirmation by the observer from IACS that document MEPC 76/6/9 (IACS) on using ethane as fuel, deferred to MEPC 77, was directly relevant to the consideration in paragraph 21.3 of document MEPC 76/6/1 (Secretariat) regarding amending the *2018 Guidelines on the method of calculation of the attained Energy Efficiency Design Index (EEDI) for new ships* (resolution MEPC.308(73)), to include ethane and biofuel. In respect of biofuel, the observer from IACS informed the Committee that IACS had initiated work on this and would share the results with the Committee upon its conclusion.

Matters deferred to MEPC 77

6.12 As proposed in document MEPC 76/1/1 (annex 3), the Committee agreed to defer the consideration of documents MEPC 76/6 (Japan), MEPC 76/6/2 (China, Germany and Japan), MEPC 76/6/3 (China), MEPC 76/6/5 (CESA), MEPC 76/6/6 (Finland and Germany), MEPC 76/6/7 (France), MEPC 76/6/8 (France), MEPC 76/6/9 (IACS), MEPC 76/6/10 (Comoros and RINA), MEPC 76/INF.27 (Japan), MEPC 75/6/4 (INTERTANKO), MEPC 74/5 (IACS), MEPC 74/5/6 (ICS, ITF and ASEF), MEPC 74/5/7 (Secretariat), MEPC 74/5/30 (China) and MEPC 74/INF.39 (China) to MEPC 77.

7 REDUCTION OF GHG EMISSIONS FROM SHIPS

MATTERS CONSIDERED BY CORRESPONDENCE PRIOR TO THE VIRTUAL MEETING

7.1 In accordance with the arrangements of the remote session, as outlined in document MEPC 76/1/1 (paragraphs 14 to 17) and its annex 2 (section 5 on agenda item 7), the Committee noted document MEPC 76/INF.25 (Secretariat) informing the Committee of the recently finalized Ship-Port Interface Guide – Practical Measures to Reduce GHG Emissions, which was developed by the Global Industry Alliance to Support Low Carbon Shipping (Low Carbon GIA) within the framework of the IMO-Norway GreenVoyage2050 Project.

MATTERS CONSIDERED DURING THE VIRTUAL MEETING

7.2 The Committee agreed to consider matters under this agenda item in the following order:

- .1 the report of the Steering Committee on the Comprehensive Impact Assessment of the short-term measure approved by MEPC 75;
- .2 the outcome of the eighth meeting of the Intersessional Working Group on Reduction of GHG Emissions from Ships (ISWG-GHG 8);
- .3 the revised proposal on the establishment of the International Maritime Research and Development Board and the IMO Maritime Research Fund and related commenting documents; and
- .4 proposals on the development of mid- and long-term measures following up on the Initial IMO GHG Strategy and supporting working arrangements.

Report of the Steering Committee on the Comprehensive Impact Assessment of the short-term measure approved by MEPC 75

7.3 The Committee recalled that MEPC 75 had approved the terms of reference and arrangements for conducting a comprehensive impact assessment of the short-term measure and had instructed the Secretariat to initiate the impact assessment in accordance with the approved terms of reference, with a view to the submission of a final report for the consideration of MEPC 76.

7.4 In this regard the Committee noted documents MEPC 76/7 and MEPC 76/7/Add.1 (Secretariat) providing updates on the preparation of the comprehensive impact assessment and the outcomes of the meetings of the established Steering Committee on the comprehensive impact assessment. The Committee noted, in particular, that the Steering Committee had agreed to structure its work under the terms of reference in seven distinct but closely interlinked tasks: literature review; assessment of the impact of the measure on the fleet; assessment of the impact of the measure on States; stakeholder analysis; identification of areas of missing data; COVID-19 considerations; and disproportionately negative impacts.

7.5 The Committee considered documents MEPC 76/7/13 and MEPC 76/INF.68 and addenda (Secretariat) containing the main findings of the impact assessment as well as the detailed outcomes of each of the tasks carried out under the impact assessment. The coordinator of the Steering Committee, Mr. Harry Conway (Liberia), introduced in particular the following points:

- .1 the assessment of the impacts on States expressed in changes in GDP and trade values (imports/exports), as conducted by UNCTAD (task 3), demonstrated that by 2030, while overall the global impacts of the short-term measure would be relatively small (GDP reduction at the global level in the range of -0.04% on average in the High-GHG reduction scenario and -0.02% under the Low-GHG reduction scenario), there would be relatively higher negative impacts of the short-term measure on certain groups of States, in particular those developing countries remote from their main export markets, including LDCs and SIDS;

- .2 generally, the negative impacts would be higher for countries that already had a weakened economy (including possibly by the impact of COVID-19) while, at the same time, the impacts of the draft amendments would not be larger than already existing fluctuations in global freight rates following from, for instance, fuel price fluctuations or other economic developments;
- .3 for some countries the negative impacts of the IMO measure assessed in this report were higher than for others, and aware of the resource constraints of some developing countries, including SIDS and LDCs, some countries would likely require support to mitigate the increased maritime logistics costs and alleviate the consequent negative impact on their respective real income and trade flows; and
- .4 whereas the impact assessment identified negative impacts, the Steering Committee did not make any progress on defining whether those negative impacts were to be considered as "disproportionately" negative.

7.6 The Committee further had for its consideration the following three documents commenting on the main findings of the impact assessment as set out in document MEPC 76/7/13, namely documents:

- .1 MEPC 76/7/62 (Solomon Islands) noting that the needs of SIDS and LDCs were not homogeneous; and proposing that no general exemptions or waivers be adopted at this point of time, but that three years after entry into force of the short-term measure a review should be performed to identify whether there would be any disproportionately negative impacts on States, in particular SIDS and LDCs, and also suggesting that during that period, specific studies should be undertaken on the transport costs and economics of shipping for SIDS and LDCs to ensure that the needs of developing countries, particularly SIDS and LDCs would be appropriately addressed;
- .2 MEPC 76/7/63 (Antigua and Barbuda et al.) proposing, in light of the number of negative impacts identified in the impact assessment, which in the view of the co-sponsors could create serious problems for many developing countries, particularly SIDS and LDCs, the inclusion of a waiver clause in the draft amendments to MARPOL Annex VI for, in particular, LDCs and SIDS that were likely to be negatively impacted by the measure, on the basis of specific criteria and the individual waivers to be approved by the Committee; and
- .3 MEPC 76/7/64 (Argentina et al.) proposing that the draft resolution for the adoption of the short-term measure should also include some decisions inspired by the conclusions of the comprehensive impact assessment and complementary assessments, including the proposal to work on a mechanism to address impacts on States, and to invite for proposals to ISWG-GHG 10 to follow-up on those decisions.

7.7 The Committee noted document MEPC 76/INF.61 (Brazil) providing an analysis of the impact of the reduction in ship speed and power on the Brazilian economy, although in relation to the 2050 level of ambition set out in the Initial Strategy and not the 2030 level of ambition.

7.8 In the ensuing discussion, many delegations supported the approval of the report on the comprehensive impact assessment and stated that it constituted a high-quality impartial study that also allowed for the participation of relevant stakeholders, which would enable the

Organization to take informed decisions. Several other delegations, in acknowledging the work done, noted that a number of uncertainties remained, that several assumptions on costs and enforcement of the measure would need to be validated and that the cost models used tended to overestimate negative impacts on States. Some of these delegations also expressed the view that future impact assessments should assess not only negative impacts but also positive impacts.

7.9 In referring to the findings of the comprehensive impact assessment, some delegations highlighted that the impact assessment showed that some countries were likely to be negatively impacted, that forced speed reduction would require additional ships to compensate for the transport capacity loss, that small ships engaged in short-sea shipping were likely to face difficulties, and that there was a need to reassess GHG reduction targets taking into account the effects of the COVID-19 pandemic. Some other delegations highlighted that the global impact on GDP and trade could be considered small when compared to other normal fluctuations and that, even with the measure in place, the cost intensity of shipping was expected to decrease by 2030 compared to 2019.

7.10 Some delegations highlighted that the comprehensive impact assessment, and in particular the stakeholder analysis, showed that some countries would undoubtedly be negatively affected by the measure, and to that purpose supported the possibility for the Committee to grant waivers to specific voyages in the amendments as proposed in document MEPC 76/7/63. Some other delegations suggested that specific impacts should be monitored before taking a decision on the matter before entry into force of the measure. However, the majority of delegations who spoke, also referring to document MEPC 76/7/62, could not support the inclusion of such a waiver clause, stating that data available did not lead to a clear conclusion in favour of an exemption, that flag-wise exemption or waiver was not feasible for international shipping considering its transnational nature, and that the application of a waiver clause would risk undermining the effective implementation of the measure. Several of these delegations could support revisiting the matter in conjunction with the review of the short-term measure.

7.11 Several delegations expressed the view that the concept of "disproportionately negative impacts" was not clearly defined, that no disproportionately negative impact had been identified in the comprehensive impact assessment, and that it was premature to take any decision on this issue. These delegations saw little merit in having a discussion at this session on how to address impacts in the absence of a clear definition of disproportionately negative impacts. Some of these delegations suggested that, following adoption of the measure, an analysis of the disproportionately negative impacts should be undertaken for further consideration at a later session.

7.12 Several delegations expressed the view that the absence of an agreed definition of disproportionately negative impact should not be used as a pretext not to act on addressing negative impacts on States and recalled that the Initial Strategy stated that the impacts on States of a measure should be assessed and taken into account as appropriate before adoption of the measure. In this context some of these delegations expressed the view that negative impacts on the smallest, most vulnerable and most affected States, in particular SIDS and LDCs, should be presumed to be disproportionately negative.

7.13 Some delegations recalled that during MEPC 75 many delegations had highlighted the need to consider the draft amendments and the assessment of their impacts on States as a package, and that accordingly MEPC 76 should consider the draft amendments for adoption and the outcome of the comprehensive impact assessment as a package (MEPC 75/18, paragraph 7.35). These delegations reaffirmed the need for the Committee to follow this approach.

7.14 Some other delegations opposed the "package" approach and expressed the view that attempting to address all potential impacts of a measure was unrealistic, could delay decision-making on GHG reduction measures, that the Initial Strategy did not contain any provisions or requirements referring to such a package approach and that the Committee would not be bound in its decision-making by such an approach.

7.15 In considering document MEPC 76/7/64, many delegations supported the proposal that impacts of the short-term measure should be kept under review in the period up to 2026 so that any necessary adjustments could be made, as also mentioned in the *Procedure for assessing impacts on States of candidate measures* (MEPC.1/Circ.885);

7.16 Many delegations also supported the conduct of a lessons-learned exercise on the basis of the comprehensive impact assessment of the short-term measure, some of which highlighted that this exercise should be clearly limited in scope, while others supported undertaking this in the wider context of the review of the *Procedure for assessing impacts on States of candidate measures* (MEPC.1/Circ.885).

7.17 In considering the proposed establishment of a permanent mechanism to address negative impacts on States, some delegations could support such a mechanism, but the majority of the delegations that spoke could not support the proposal at this stage and expressed concerns that this would be a complex process and that it would not be in line with the Initial Strategy. Several delegations expressed caution that any mechanism should be limited to addressing disproportionately negative impacts and that any mitigation of impacts should not undermine the effectiveness of the measure in reducing GHG emissions. One delegation, on behalf of the co-sponsors of document MEPC 76/7/64, clarified that it was not the intention to undermine the effectiveness of the measure but to comply fully with the commitments made in the Initial Strategy.

7.18 Some delegations suggested that the Steering Committee established by MEPC 75 should be instructed to conduct further work on addressing impacts on States. Some delegations further suggested that the Committee could further consider such a process based on the lessons-learned exercise. In this regard, several delegations suggested that the Committee should invite proposals from Member States on concrete actions at future sessions.

7.19 Several delegations highlighted the need to increase technical assistance provided to developing countries to support with the implementation of the short-term measure. In this regard, the Committee recalled that MEPC 75 had invited the Technical Cooperation Committee to initiate discussions on considering possible means of resource mobilization for assisting developing countries, in particular LDCs and SIDS, to complement any response if the comprehensive impact assessment of the short-term measure were to find that there were likely to be disproportionately negative impacts on those States in line with the Initial Strategy (MEPC 75/18, paragraph 7.44).

7.20 Several delegations also expressed the view that the Organization should commission specific studies specifically related to transport costs and economics of shipping for SIDS and LDCs, as suggested in document MEPC 76/7/62, and should also address the areas of missing data as identified in the comprehensive impact assessment.

7.21 In this regard the Committee noted a statement by the delegation of Kenya, supported by the delegations of the Bahamas, Belize, Georgia, Indonesia, Jamaica, Malaysia, Saint Kitts and Nevis, Saudi Arabia, South Africa, Trinidad and Tobago, the United Arab Emirates and Viet Nam, highlighting the role played by Maritime Technology Cooperation Centres (MTCC) in supporting States with implementation of energy efficiency measures, expressing gratitude to the European Union for the financial support provided thus far, and inviting interested parties

to consider ways to ensure their financial sustainability so that MTCCs could continue to operate without interruption, including to provide support with the implementation of the short-term measure. The full text of the statements made by the delegations of Kenya, Belize, Indonesia, Jamaica, and Saint Kitts and Nevis is set out in annex 20. The Committee noted a statement from the observer of the European Commission that possible further assistance was being considered and that information would be provided to the Organization in due course.

7.22 Having considered documents MEPC 76/7, MEPC 76/7/Add.1, MEPC 76/7/13, MEPC 76/INF.68 and addenda, MEPC 76/7/62, MEPC 76/7/63 and MEPC 76/7/64 and the additional information provided orally by the coordinator of the Steering Committee, Mr. Harry Conway (Liberia), the Committee took action as outlined in the following paragraphs.

7.23 The Committee noted that the Steering Committee had concluded that the comprehensive impact assessment of the short-term measure fulfilled the terms of reference and timelines agreed by MEPC 75 and noted documents MEPC 76/7/13 and MEPC 76/INF.68 and addendum.

7.24 The Committee thanked the Governments of Cyprus, Denmark, France, Germany, the Netherlands and Norway for their financial contributions towards the conduct of the comprehensive impact assessment of the short-term measure. The Committee expressed its appreciation to all the experts, in particular WMU, DNV, NUS, UNCTAD and Starcrest, having contributed to the comprehensive impact assessment, to the coordinator, Mr. Harry Conway (Liberia) and the other members of the Steering Committee of Member States for having overseen the conduct of the assessment.

7.25 The Committee reaffirmed, in line with the *Procedure for assessing impacts on States of candidate measures* (MEPC.1/Circ.885), keeping the implementation and impacts of the short-term measure under review, so that any necessary adjustments might be made, and in that context recalled that MEPC 75 had already agreed to insert a paragraph to that purpose in the resolution text accompanying the amendments, which was included in the draft resolution set out in document MEPC 76/3.

7.26 The Committee recalled further that during MEPC 75 many delegations had highlighted the need to consider the draft amendments and the assessment of their impacts on States as a package, and that accordingly MEPC 76 should consider the draft amendments for adoption and the outcome of the comprehensive impact assessment as a package (MEPC 75/18, paragraph 7.35).

7.27 The Committee agreed that a lessons-learned exercise should be undertaken to draw lessons from the comprehensive impact assessment of the short-term measure for the conduct of future impact assessments, including how disproportionately negative impacts could be identified with a view to addressing them, as appropriate.

7.28 To that effect the Committee agreed to include the following additional paragraph in the resolution text, as an operative paragraph, on the adoption of the amendments to MARPOL Annex VI on the short-term measure: "Agrees to undertake a lessons-learned exercise from the comprehensive impact assessment of the amendments to MARPOL Annex VI, with a view to improving the procedure for conducting future impact assessments, taking into account the *Procedure for assessing impacts on States of candidate measures* (MEPC.1/Circ.885) and the terms of reference for the impact assessment of the short-term measure;"

7.29 The Committee agreed that this lessons-learned exercise should take place as soon as possible so as to apply those lessons to future assessments in line with the Initial Strategy.

7.30 The Committee did not agree to the inclusion of a waiver clause to the draft amendments but instead agreed that the Committee could revisit this matter in conjunction with the review of the short-term measure to be completed by 1 January 2026.

7.31 The Committee considered a proposal to initiate a work on a mechanism for addressing disproportionately negative impacts on States, including developing countries, especially SIDS and LDCs, at this session. However, there was no wide support at this session.

7.32 To that purpose, the Committee invited Member States and international organizations to submit concrete proposals on how to keep the impacts of the short-term measure under review and how to undertake a lessons-learned exercise to the next session of the Committee, to be firstly considered by ISWG-GHG 10.

7.33 Furthermore, having noted various requests for additional technical assistance, resource mobilization and data gathering to support States with the implementation of the measure, the Committee requested the Technical Cooperation Committee to consider ways to provide enhanced support in the first years of implementation of the measure.

7.34 In conclusion, the Committee approved, in general, the report on the comprehensive impact assessment as set out in documents MEPC 76/7/13 and MEPC 76/INF.68 and addendum.

7.35 The Committee noted the concern expressed by the delegation of the United States emphasizing the need for language used by the Committee when formulating any decision regarding impact assessments to be consistent with the Initial IMO GHG Strategy.

7.36 As requested, the statements made by the delegations of Argentina, Belgium, the Cook Islands, Germany, India, Indonesia, Solomon Islands, Tuvalu, the United Arab Emirates and the observer from Pacific Environment are set out in annex 20.

Secretariat support for the Organization's work on GHG emissions reduction

7.37 The Committee considered document MEPC 76/7/18 (Secretariat) outlining the scope of the Secretariat's support to the Organization's work on GHG emissions reduction, including impact assessments, and containing proposals on how to further support the Committee and Member States in their work on GHG emissions reduction.

7.38 In the ensuing discussion, all delegations that spoke expressed their appreciation for the work of the Secretariat and acknowledged the need to enhance human resources capacities within the Marine Environment Division with a view to further supporting the Committee and Member States in their work on GHG emissions reduction.

7.39 In supporting the continued consideration of the proposal by the Secretariat at C 125, the Committee noted that some delegations stressed the importance of ensuring an equitable geographical and gender representation, and also noted that the additional officers could also support other subject areas within the Marine Environment Division; that how to finance additional posts, e.g. by supplementary contributions by Member States, should be considered by the Council; that increasing human resource capacity could also be provided for other areas in MED; and that increasing human resources could also be considered for divisions and departments within the Secretariat. In this context the Committee noted an intervention by a delegation recommending further acknowledgement by Council of the Organization's role as a specialized technical body and the need to prioritize the staffing needs of its technical divisions over those of the support divisions with a view to making the necessary additional budget allocation within zero nominal growth for the next biennium of 2022-2023 for recruiting two additional professional officers in the Air Pollution and Energy Efficiency Section of the Marine Environment Division.

7.40 Following consideration the Committee noted the ever-increasing demand for the Secretariat's support for the Organization's work on GHG emissions reduction and agreed to:

- .1 recognize that in accordance with its Strategic Plan, reducing GHG emissions from ships was a priority for the Organization, while also recognizing the continuously growing workload for the Marine Environment Division in relation to the Committee's various work streams on GHG reduction measures, including increasing intersessional work;
- .2 support the need to enhance the human resource capacity in the Marine Environment Division working on GHG-related issues to continue to adequately support the Committee and Member States in their GHG-related deliberations also taking into account the need to ensure an equitable geographical and gender representation; and
- .3 recommend further consideration at Council with a view to making the necessary additional budget allocation for the next biennium of 2022-2023 for recruiting two additional professional officers in the Air Pollution and Energy Efficiency Section of the Marine Environment Division.

Eighth meeting of the Intersessional Working Group on Reduction of GHG Emissions from Ships (ISWG-GHG 8)

7.41 The Committee noted that the eighth meeting of the Intersessional Working Group on Reduction of GHG Emissions from Ships (ISWG-GHG 8) had been held remotely from 24 to 28 May 2021 and that its report had been submitted to it as document MEPC 76/WP.4.

7.42 The Committee noted that ISWG-GHG 8 had considered the report of the Correspondence Group on the Development of Technical Guidelines on Carbon Intensity Reduction in conjunction with those documents submitted to MEPC 76 which commented on the report of the Correspondence Group, as follows:

- .1 MEPC 76/7/3, MEPC 76/7/4, MEPC 76/7/5, MEPC 76/7/6, MEPC 76/INF.7, MEPC 76/INF.8, MEPC 76/INF.9 and MEPC 76/INF.10 (China et al.) providing the report of the Correspondence Group on the Development of Technical Guidelines on Carbon Intensity Reduction established at MEPC 75 on the draft technical guidelines supporting the EEXI framework; the draft technical guidelines supporting the CII framework; the updated SEEMP Guidelines; the update of other existing guidelines; a summary of comments provided to the Correspondence Group; and a technical report on CII guidelines development prepared by the coordinators of the Correspondence Group, respectively;
- .2 MEPC 76/7/14 (INTERFERRY) suggesting that high-speed craft (HSC) should be defined as a separate sector from ro-ro passenger ships in MARPOL Annex VI chapter 4 and for the purposes of the IMO DCS; arguing that, according to the principles set out when the EEDI was developed, these ships could not be categorized together because their type of propulsion was drastically different and because they could not substitute each other; and suggesting that an HSC reference line be established and that proposals to treat the HSC sector separately should be considered as part of the planned review of the CII framework expected to take place by 2026;

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- .3 MEPC 76/7/16 (RINA and the Nautical Institute) providing information on member and wider industry consultation conducted by the Nautical Institute and RINA on EEXI and the development of technical guidelines on carbon intensity; noting issues that might be of interest to the Committee; and proposing potential amendments to the draft guidelines on the shaft/engine power limitation system to comply with the EEXI requirements and use of a power reserve tending to facilitate access to power reserve override by the crew when required for safety reasons by removing technical or administrative barriers which could discourage it;
- .4 MEPC 76/7/19 (Netherlands) supporting the inclusion of compensation factors for cargo treatment related energy use (heating/cooling) and cargo handling (loading gears) as these operations could have a significant effect on the CII value and might even make it impossible to reach the appropriate rating; proposing to limit the compensation factor to a maximum of 75% of the calculated value and to reduce this percentage by 3% per year to avoid over-compensation and to continue to incentivize the efficiency optimization of the operational aspect which was being compensated; proposing to widen the rating band for general cargo ships and container ships below 20,000 DWT in order to address the issue of the high scatter caused by the huge variation of ship designs and operational profile in these categories; and suggesting an alternative rating band proposal for general cargo and container ships;
- .5 MEPC 76/7/21 (Estonia et al.) proposing, in addition to document MEPC 76/3/5 (Estonia et al.) in favour of voyage exclusions for ice-classed ships when sailing in ice conditions for calculation of the attained CII for these ships, a definition of "sailing in ice conditions" as "sailing of an ice-classed ship in a sea area within the ice edge"; this definition differing from previous ones (operational capabilities and limitations in ice given in MSC.1/Circ.1519 and minimum parameter of ice thickness required for operation of ice class ships given in HELCOM Recommendation 25/7) which might be too complicated and might not cover all possible situations;
- .6 MEPC 76/7/23 (France) proposing a method to assess the possibility to include potential correction factors and voyage exclusions in the CII framework; suggesting four criteria to assess the possibility and the appropriateness of inserting correction factors and voyage exclusions: 1) policy justification, 2) accuracy, 3) applicability of the measures, and 4) capacity to assess their effects; providing a basic assessment analysis of the options on correction factors and voyage exclusions remaining in discussion; suggesting continuing to carry out research and studies, encouraging submission of the necessary additional supporting data in THETIS-MRV and suggesting initiating a revision of the IMO DCS to enable this submission; and advising that this way the correction factors and voyage exclusions could be considered during the review to be conducted before 1 January 2026 with the additional necessary data;
- .7 MEPC 76/7/24 (France and the United States) analysing and discussing the relevance of the remaining options on the measurement of the 2030 target and the already achieved carbon intensity improvement in the Reduction factors guidelines (G3) developed by the Correspondence Group on the Development of Technical Guidelines on Carbon Intensity Reduction; and suggesting using the supply-based measurement to determine the 2030 target and the already achieved carbon intensity improvement and proposing to consider amending the IMO DCS to obtain reliable data and consistent quantifications to consolidate the demand-based metrics;

- .8 MEPC 76/7/25 (Indonesia et al.) providing additional information to that already provided to the Correspondence Group on the Development of Technical Guidelines on Carbon Intensity Reduction related to excluding operations in severe adverse weather conditions from a ship's CII rating calculation; supporting the exclusion from CII ratings of the voyage in weather conditions at, or more severe than, sea state 7 Beaufort in the draft guidelines but maintaining the mandatory reporting of aggregate emissions to the IMO Data Collection System (DCS); and suggesting that this exception be addressed at the 2026 review stage to evaluate if it can be normalized;
- .9 MEPC 76/7/27 (INTERTANKO) outlining the distinct operations that shuttle tankers perform due to their nature compared to regular tankers and which result in significantly higher fuel consumption; suggesting that this small group of tankers be considered as a different category instead of being kept part of the "tankers" ship group; and proposing correction factors to be applied in case shuttle tankers were maintained in the "tankers" group;
- .10 MEPC 76/7/28 (RINA) proposing to amend the draft guidelines on survey and certification of the attained EEXI in order to support the use of numerical methods as an equivalent to model tests for the purposes of estimating the reference speed V_{ref} , and also proposing in view of this to request IACS to develop a common understanding on acceptable methodologies for performing and verifying numerical powering calculations;
- .11 MEPC 76/7/29 (ICS and WSC) outlining why calculating the energy consumption associated with refrigerated containers was critical to creating an equitable CII rating system for container ships transporting chilled and frozen cargoes; also explaining how it would result in disproportionate impacts on specific Member State exports and imports that were heavily dependent upon the shipment of goods requiring refrigeration; suggesting applying a correction factor to container ships and proposing a detailed method for calculating the relevant energy consumed to refrigerate containers on board while suggesting the report to the IMO DCS of the total fuel consumption of the ship;
- .12 MEPC 76/7/30 (CLIA and WSC) providing a detailed discussion of the advantages of a "fleet-level monitoring" (FLM) option; pointing out that a CII monitoring system focusing on individual ships would invariably lead the owners and operators to put their efforts on those ships that received lower ratings rather than resulting in their retirement; stating that, on the contrary, FLM could encourage new and innovative investments in shipboard technologies, alternative fuels and the introduction of high performing ships; and proposing a method for ensuring the compliance and enforcement of this option;
- .13 MEPC 76/7/33 (WSC) outlining issues that arose in the data and rationale for ship type-specific CII reduction rates; highlighting a gap between the estimated efficiency improvements achieved and the actual efficiency improvement noted in the 2019 IMO DCS data; and recommending the use of a single uniform annual reduction rate ("flat") as the most equitable means to promote further efficiency improvements across the fleet as a whole considering the disparities found in the 2019 figures for the suggested ship type-specific reduction rates;

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- .14 MEPC 76/7/34 (CLIA) assessing that the CII calculation was not likely to incentivize reduction of absolute emissions in the cruise sector as it used a distance variable in the denominator; revealing that the current method of calculation encouraged cruise passenger ships to travel greater distances (which would potentially lead to increase absolute emissions) to get a better CII rating while cruise passenger ships spent on average between 25% and 30% of the total time of a normal voyage in port (in which emissions typically accounted for around 15% of a cruise ship's total); and proposing as alternatives to allow ships which spent more than 20% of their time in port annually to exclude such time from the CII calculation or to apply a correction factor to provide an equivalent number of nautical miles travelled (suggested to be 15 nm) per hour in port;
- .15 MEPC 76/7/35 (Italy) proposing amendments to the draft guidelines on the method of calculation of the attained EEXI for ro-ro cargo ships (vehicle carriers); assessing that the use of DWT instead of GT in the calculation of the attained EEXI led to an underestimation of the energy efficiency for ships within this ship type which had been considered volume carrier ships; and while the Correspondence Group had recognized that GT instead of DWT was a better metric to describe the cargo transported, proposing to introduce a correction factor for ro-ro cargo ships (vehicle carrier) with a DWT/GT ratio lower than the average (0.35);
- .16 MEPC 76/7/36 (IPTA) assessing that a number of factors affecting fuel consumption, such as cargo heating, tank washing and operation of nitrogen generators, had to be properly addressed to provide an accurate picture of the efficiency of individual chemical tankers; and proposing that in order to reduce the inequities in calculation of CII, 85% of fuel consumed by the boilers on tankers be excluded from this calculation, although not from the DCS report and also, as part of the review, that a study be carried out into the drivers affecting chemical tankers AER results;
- .17 MEPC 76/7/37 (IACS) commenting on the report of the Correspondence Group on the Development of Technical Guidelines on Carbon Intensity Reduction (TOR 3 and TOR 4), with particular reference to the SEEMP and recommending that the Committee provide clarification on the role of the SEEMP, on verification audits applicable to all ships, regardless of rating, on the conduct of the SEEMP verification and on the plan of corrective actions;
- .18 MEPC 76/7/38 (Pacific Environment and CSC) recommending the adoption of the strongest possible reduction rates to build up the short-term measure's ambition, transparency and implementation; suggesting in this regard that the power of main engines be represented by 87% MCR_{lim} (instead of 75% MCR_{lim}) or 75% of original installed power, whichever was lower for each main engine; assessing that this would roughly double absolute emission reductions under the EEXI in 2030; stating a preference for supply-based measurement of 2030 target (Option 2A) and flat reduction factors for the CII framework and not supporting any voyage exclusion or correction factors;
- .19 MEPC 76/7/41 (Denmark) estimating that, without any clear incentives or benefits for such front-runners in the short-term regulation, many companies would currently not be able to bear the additional costs of a transition toward low- or carbon neutral fuels and maintain their competitiveness in the market; and proposing a fleet-averaging approach whereby each ship in a shared

fleet would include a balance sheet in its SEEMP and inviting the Committee to re-establish the Correspondence Group to finalize the guidelines taking into account this concept;

- .20 MEPC 76/7/43 (INTERCARGO) supporting the exclusion of fuel consumption relating to cargo operations from a ship's carbon intensity indicator (CII) rating calculation; and proposing a correction of 100% in order to ensure the comparability between ships and to avoid unfair disadvantages for ships servicing ports without shore infrastructure as well as the concerned States while the draft guidelines on operational intensity indicator and the calculation methods introduced a correction factor of 75% for cargo handling;
- .21 MEPC 76/7/44 (Republic of Korea) suggesting reflecting onboard CO₂ capture, as one GHG emissions reduction technology, in the CII framework by removing the square brackets in the formula for calculation of the mass of CO₂ emissions; and also proposing to amend the formula for calculation of the mass of CO₂ emissions (*M*) to cover all CO₂ capture systems by inclusion of a variable with the mass of CO₂ captured from flue gas measured;
- .22 MEPC 76/7/46 (INTERTANKO) highlighting the need to apply a correction factor to account for the energy consumption for cargo cooling onboard gas carriers; proposing two different options to calculate it depending on whether the ship had the ability, or not to monitor fuel consumption to the cooling system/plant used for the cargo cooling; and suggesting applying a [85%] "load factor" to the fuel used for cargo handling/cooling and an additional [2%] annual reduction of the "load factor" with the intent to encourage efficiency improvements in equipment/operations of cargo cooling;
- .23 MEPC 76/7/47 (IACS) proposing modifications to the draft guidelines on survey and certification of the attained EEXI, suggesting inserting specifications regarding the use of numerical calculations as an alternative to model tests and seeking clarifications about the possible verification and aggregation of data collected during trial CIIs on a voluntary basis; and requesting also clarifications about how the verification of ships' explanation for not reaching the required CII performance should be done if it were included in the Statement of Compliance;
- .24 MEPC 76/7/48 (INTERTANKO) commenting on the Correspondence Group option for the CII annual reduction rate based on "supply-based measurement"; using data reported by tanker operators and data from the Third and Fourth IMO GHG Studies, which indicated that tankers' AER values in 2018-2020 were between 28% and close to 35% below the value for 2008 and the net fuel consumptions had been reduced by over 30%, even over 40%; showing however the strong influence that "total distance" had on the attained AER value and recommending considering the attained AER value of the tanker fleet instead; and suggesting establishing the CII reduction factors relative to the 2019 reference line for tankers as proposed under the "demand-based measurement", i.e. 0.50% annually;
- .25 MEPC 76/7/50 (United States) providing comments on the incorporation of the overridable engine power limit (OPL) concept into the draft EEXI guidelines; estimating that the methodology for calculating the effect of an OPL overstated the efficiency gains, and therefore the GHG reduction

impact, of installing such technology; proposing an alternative approach named EngPoLi (Engine Power Limit) and suggesting it would be considered together with the ShaPoLi methodology proposed for calculating P_{ME} for a ship equipped with OPL; and also suggesting keeping the option to set the power of main engines ($P_{ME(i)}$) at 87% of OPL in the EEXI formula for cases where EngPoLi was installed;

- .26 MEPC 76/7/51 (RINA) addressing issues regarding DCS data inaccuracy especially linked to the anonymization of it, which made it impossible for shipowners and potential users to undertake verifications; raising the point that the CII's dependence on distance travelled could result in an incentive for ships to increase this distance and hence CO₂ emissions in the end; seeking clarifications with regard to the correction factors and voyage exclusions and assessing that their verification would necessitate amendments to the *2017 Guidelines for Administration verification of ship fuel oil consumption data*; and suggesting amending the DCS to be able to analyse the impact and effect of these correction factors and voyage exclusions;
- .27 MEPC 76/7/52 (Greece) suggesting that the additional energy consumption for LNG carriers which was necessary for cooling the temperature and maintaining the pressure of the cargo for transportation should not be included in the calculation of the attained CII to avoid unfair treatment because of the cargo handling technology and not related to ship's performance; and recommending detailed procedures that allowed both LNG carriers and the Administration to specifically identify fuel consumed for cargo handling;
- .28 MEPC 76/7/53 (Greece) suggesting that all EEDI capacity correction factors should be equally applicable to CII calculations because AER was a capacity related indicator (DWT); supporting the principle that the Guidelines should ensure an equal distribution of rating values and therefore supporting the development of separate reference lines according to each size range/segment; stating that shipping's carbon intensity improvement to 2019 relative to 2008, and thus the 2030 carbon intensity gap, should be calculated using the demand-based carbon intensity (Option 1A); and arguing that ship type-specific reduction factors would promote fairness as different ship types had achieved different carbon intensity improvement and had different potential for further improvement;
- .29 MEPC 76/7/54 (Greece) suggesting that the $P_{ME(i)}$ should remain at 75% of MCR_{lim} as currently included in the draft guidelines and in line with the EEDI calculations to prevent confusion and in order to ensure a level playing field; supporting the proposal put forward by BIMCO and RINA in document ISWG-GHG 8/2/Rev.1 by including in the draft EEXI calculation guidelines an alternative method to determine V_{ref} , by using empirical data from sea trial tests or the daily ship performance recordings if the statistical evaluation method of V_{ref} was not followed; suggesting that performance margin m_v should be set at 2.5% of the average speed or 0.5 knot, whichever was lower when the statistical method was used; and suggesting also amending the draft guidelines on the method of calculation of the attained EEXI so that, in accordance with current EEDI standards and under the supervision of a recognized organization (RO), ships should be allowed to perform in-service sea trials to determine the required power-speed curve;

- .30 MEPC 76/7/55 (Greece) observing unjustified distortions in CII rating of smaller bulk carriers and tankers resulting in an increase in the number of ships rated D and E and suggesting, after a detailed evaluation of the biased ratings of ships disadvantaged by their size within the different ship types, developing size-dependent correction factors for adjusting the rating boundaries (reducing d1 and d2 and increasing d3 and d4) so their ratings would be fairly distributed as originally intended;
- .31 MEPC 76/7/56 (CLIA) stating that the seven- or six-month period allowed by the procedures associated with carrying out the CII measurement would not leave enough time for shipowners to make substantial adjustments to their operational profile; and proposing an amendment to the draft revised guidelines for the development of a Ship Energy Efficiency Management Plan (SEEMP) and the development of an MEPC circular indicating to Administrations that ships implementing a plan of corrective actions should be given two to three years for the plan to reflect changes in their attained CII and rating;
- .32 MEPC 76/7/59 (India) proposing to include in the draft guidelines on survey and certification of the EEXI an additional figure providing an example speed-power curve representing pre-EEDI ships with sea trial result calibrated to design draught, falling under the scope of paragraph 2.2.3.4 of the draft guidelines on the method of calculation of the attained Energy Efficiency Existing Ship Index (EEXI);
- .33 MEPC 76/INF.41 (Netherlands) providing a study conducted by MARIN and CONOSHIP international analysing the effect of the CII framework on general cargo ships, container ships and tankers with a focus on the small ship segments of these ship types; observing unjustified distortions in rating small ships and assessing that a significant number of general cargo and container ships would fall into D and E rating according to the current reference lines and rating bands; and proposing that corrections to ratings bands for these ship types be considered; and
- .34 MEPC 76/INF.60 (Denmark) providing a study exploring the way in which the short-term measure agreed at MEPC 75 could be used to incentivize the uptake of low- or zero-carbon fuels by allowing fleet averaging, as an option, to comply with the CII framework; assuming that the money which would otherwise have been spent on improving the CII of all non-compliant ships could be used to let some ships of the fleet sail on low- and zero-carbon fuels in such a way that the total emissions would not exceed the emissions of a compliant fleet; revealing, in a business-case analysis for using low- and zero-carbon fuels for both individual ships and fleets, that on average 25% to 50% of the additional costs of using low- and zero-carbon fuels could be covered by not investing in the improvements of other ships in the fleet; and providing data that could be utilized in the further consideration of the incorporation of a fleet-averaging approach into the SEEMP Guidelines.

7.43 Having considered the report of ISWG-GHG 8 (MEPC 76/WP.4) and the additional information provided orally by the Chair of the Group, Mr. Sveinung Oftedal (Norway), the Committee approved the report in general and took action as described below.

Finalization of the draft technical guidelines supporting the EEXI framework

7.44 The Committee noted the Group's discussion on the finalization of the draft technical guidelines supporting the EEXI framework.

7.45 Following consideration, the Committee adopted the following resolutions:

- .1 resolution MEPC.333(76) on the *2021 Guidelines on the method of calculation of the attained Energy Efficiency Existing Ship Index (EEXI)*, as set out in annex 7;
- .2 resolution MEPC.334(76) on the *2021 Guidelines on survey and certification of the Energy Efficiency Existing Ship Index (EEXI)*, as set out in annex 8; and
- .3 resolution MEPC.335(76) on the *2021 Guidelines on the shaft/engine power limitation system to comply with the EEXI requirements and use of a power reserve*, as set out in annex 9.

7.46 In considering the draft 2021 guidelines on the shaft/engine power limitation system to comply with the EEXI requirements and use of a power reserve, the observer of the Nautical Institute expressed its appreciation to all involved in the ISWG-GHG and Correspondence Group processes for taking inputs on board related to safe operation of shaft/engine power requirements. The full text of the statement is set out in annex 20.

Finalization of the draft technical guidelines supporting the CII framework

7.47 The Committee noted the Group's discussion on the finalization of the draft technical guidelines supporting the CII framework.

7.48 In the ensuing discussion, the delegation of Norway expressed the view that the Organization should initiate a new workstream on expanding the IMO's Data Collection System (DCS) to also include cargo related data which would allow for developing a more accurate data set to facilitate monitoring of transport work.

7.49 The delegation of the Cook Islands noted the inconsistency in the fact that, following consideration of document MEPC 76/7/63 (Antigua and Barbuda et al.), the Committee had agreed to not include the possibility of granting a waiver directly linked to the review of the comprehensive impact assessment from the short-term measure in the draft amendments, while at the same time not deleting the existing blanket waiver contained in regulation 19.4 of MARPOL Annex VI.

7.50 The Committee noted a statement by the observer of CLIA regarding their document MEPC 76/7/34 proposing ships which spent considerable time in ports to exclude such time from the CII calculations or to apply a correction factor. The Committee further noted that document MEPC 76/7/34 had been included in the draft terms of reference for the Correspondence Group on Carbon Intensity Reduction. As requested, the statement made by the observer from CLIA is set out in annex 20.

Carbon intensity indicators and calculation methods

7.51 Following consideration, the Committee adopted resolution MEPC.336(76) on the *2021 Guidelines on operational carbon intensity indicators and the calculation methods (CII Guidelines, G1)*, as set out in annex 10.

CII reference lines

7.52 Following consideration, the Committee adopted resolution MEPC.337(76) on the 2021 *Guidelines on the reference lines for use with operational carbon intensity indicators (CII reference lines guidelines, G2)*, as set out in annex 11 and authorized the Secretariat to finalize the guidelines following recalculations using non-rounded DCS data as set out in document ISWG-GHG 8/WP.1/Rev.1/Add.1 (Secretariat).

CII reduction factors

7.53 In considering the draft 2021 guidelines on the operational carbon intensity reduction factors relative to reference lines (CII Reduction factor Guidelines, G3), the majority of delegations supported the compromise proposal forwarded by ISWG-GHG 8, stating that the proposal represented a prudent and realistic target for international shipping, based on evidence and consistent with the scope of the impact assessment. These delegations stated that 1% and 2% annual carbon intensity reduction were beyond business-as-usual, that the increase in ship sizes would actually lead to a larger effective CII reduction than what was in the G3 guidelines and, therefore, that in their view the CII reduction rates were consistent with the 2030 level of ambition of the Initial Strategy. In this regard, as requested, the statements made by the delegations of China, the Cook Islands, India, Philippines, the United Arab Emirates and Venezuela are set out in annex 20.

7.54 Some delegations, while expressing general support for the outcome of the Group on G3 in a spirit of compromise, highlighted that more ambitious GHG reduction efforts would be needed in order to achieve the levels of ambition set out in the Initial IMO Strategy.

7.55 Some other delegations, while supporting the principle of a phased approach and acknowledging the work done to try to bridge the divergent views, were not able to support the outcome of ISWG-GHG 8 on CII reduction rates, stating that the reduction rates set for phases 1 and 2 (1% and 2% annually, respectively) were insufficient to ensure a carbon intensity reduction of at least 22% and to incentivize behavioural change and that keeping phase 3 blank until the review stage would generate significant uncertainties for the industry and could therefore not be supported. These delegations reaffirmed their commitment to work with fellow Member States in further developing an appropriate international regulatory framework to reduce GHG emissions from ships in line with the vision and ambitions set out in the Initial IMO GHG Strategy. In this regard, as requested, the statement made by the delegation of Portugal, supported by statements of the delegations of Belgium, Denmark, Germany, the Netherlands and Sweden, are set out in annex 20.

7.56 Some delegations rejected the outcome of ISWG-GHG 8 on G3, expressly stating that the minimum CII reduction rate consistent with the Paris Agreement temperature goal would have to be at least 22% reduction by 2026 compared with 2019. In this regard, as requested, the statements made by the delegations of Canada, Jamaica, the Marshall Islands and Solomon Islands are set out in annex 20.

7.57 Several delegations, both supporting and not supporting the outcome of ISWG-GHG 8, further stated that there was an urgent need for the Organization to proceed and develop mid- and long-term measures to effectively deliver on the levels of ambition laid down in the Initial Strategy, and which might also contribute to the 2030 target.

7.58 As requested, the statements made by the observers from CESA and Pacific Environment are set out in annex 20.

7.59 Following consideration, the Committee adopted resolution MEPC.338(76) on the *2021 Guidelines on the operational carbon intensity reduction factors relative to reference lines (CII Reduction Factor Guidelines, G3)*, as set out in annex 12.

CII rating

7.60 Following consideration, the Committee adopted resolution MEPC.339(76) on the *2021 Guidelines on the operational carbon intensity rating of ships (CII Rating Guidelines, G4)*, as set out in annex 13 and authorized the Secretariat to finalize the guidelines following recalculations using non-rounded DCS data as set out in document ISWG-GHG 8/WP.1/Rev.1/Add.1 (Secretariat).

Update of the Guidelines for the development of a Ship Energy Efficiency Management Plan (SEEMP)

7.61 The Committee noted the Group's discussion on the update of the *Guidelines for the development of a Ship Energy Efficiency Management Plan (SEEMP)*.

Draft terms of reference for the Correspondence Group on Carbon Intensity Reduction

7.62 The Committee established a Correspondence Group on Carbon Intensity Reduction, under the joint coordination of China, Japan and the European Commission,¹ with the following terms of reference:

Taking into consideration the outcome of the consideration by MEPC 76 of the draft amendments to MARPOL Annex VI on the short-term measure and the associated comprehensive impact assessment:

- .1 further consider and finalize the draft updated guidelines for the development of a Ship Energy Efficiency Management Plan (SEEMP), using documents MEPC 76/7/6 and MEPC 76/INF.9 as a basis, taking into account document MEPC 76/7/37, comments and decisions made at ISWG-GHG 8 and MEPC 76, and paying particular attention to the role and structure of the SEEMP for ships to which regulation 28 applies and other proposals for inclusion into the SEEMP guidelines, as set out in paragraph 15 of document MEPC 76/7/6;

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- .2 further consider and update existing guidelines, procedures or guidance, taking into account comments and decisions made at ISWG-GHG 8 and MEPC 76, including:
 - .1 *2017 Guidelines for administration verification of ship fuel oil consumption data* (resolution MEPC.292(71));
 - .2 *2017 Guidelines for the development and management of the IMO Ship Fuel Oil Consumption Database* (resolution MEPC.293(71));
 - .3 *Procedure on 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.1/Circ.871); and
 - .4 *Procedures for port State control, 2019* (resolution A.1138(31));
- .3 develop draft guidelines on correction factors for certain ship types, operational profiles and/or voyages for the CII calculations (G5) as appropriate, using document MEPC 76/7/5 as a basis and using the assessment criteria provided in document MEPC 76/7/23 as a guidance, taking into account documents ISWG-GHG 8/3, ISWG-GHG 8/3/1, ISWG-GHG 8/3/2, MEPC 76/7/19, MEPC 76/7/21, MEPC 76/7/25, MEPC 76/7/26, MEPC 76/7/27, MEPC 76/7/29, MEPC 76/7/34, MEPC 76/7/36, MEPC 76/7/43, MEPC 76/7/46, MEPC 76/7/52, MEPC 76/7/53, MEPC 76/7/55, MEPC 76/INF.41 and MEPC 76/INF.68, and to consider a separate category for HSC RoPax, using document MEPC 76/7/14 as a basis, also taking into account comments and decisions made at ISWG-GHG 8 and MEPC 76;
- .4 develop in new or existing guidelines specific guidance on:
 - .1 the audit and verification processes of the SEEMP including the framework for verification of the SEEMP by Administrations and verification of revised SEEMP for ships required to develop a plan of corrective actions (PCA);
 - .2 develop possible parameters and templates for reporting, verification and submission of data for trial CIIs of individual ships on voluntary basis as specified in the G1 guideline and for other trial metrics of offshore and marine contracting vessels, taking into account documents MEPC 76/5/1, MEPC 76/5/3, MEPC 76/7/34 and MEPC 76/7/47; and
 - .3 aggregation and reporting of ship's fuel consumption data to the new Administration and/or company in the event of change from one Administration to another and/or from one company to another; and
- .5 submit an interim report to MEPC 77 to be first considered by ISWG-GHG 10, and a final report to MEPC 78 in 2022, to be first considered by ISWG-GHG 11.

Revised proposal for an international maritime research and development board

7.63 The Committee recalled that MEPC 75 had acknowledged the proposal by industry organizations to establish an international maritime research and development board (IMRB) and had noted diverging views and concerns on the proposal contained in document MEPC 75/7/4 (ICS et al.), in particular with regard to various operational, administrative, legal and governance aspects.

7.64 The Committee also recalled that MEPC 75 had noted that the IMRB proposal would require more detailed consideration, taking into account documents submitted and comments made on the proposal at that session, including consideration of its possible impacts on States, before taking any decisions on the proposal.

7.65 The Committee further recalled that MEPC 75 had invited interested Member States and international organizations to submit further commenting documents and other proposals related to the proposal contained in document MEPC 75/7/4.

7.66 In this regard the Committee considered documents MEPC 76/7/7 and MEPC 76/7/8 (Denmark et al.) and noted in the co-sponsors' view that the proposal had been refined to take into account views and concerns expressed at MEPC 75; included proposed draft amendments to MARPOL Annex VI for the establishment of the IMRB and IMRF; and also included changes to address specific concerns and suggestions raised by some Member States at MEPC 75, including, inter alia:

- .1 to provide supplementary support to IMO's ITCP and the IMO GHG TC-Trust Fund to assist maritime GHG reduction efforts of developing countries, in particular LDCs and SIDS;
- .2 the governance structure had been further clarified and it was proposed that the fund suggested to be established (the IMRF) should be governed within the Organization, not by a stand-alone NGO, as was originally proposed;
- .3 a comprehensive impact assessment had been carried out as set out in document MEPC 76/7/8;
- .4 legal questions concerning incorporating the IMRB and IMRF in MARPOL Annex VI had been addressed;
- .5 the administrative burden on flag States to ensure compliance had been addressed; and
- .6 intellectual property concerns had been addressed.

7.67 The Committee noted that the co-sponsors of documents MEPC 76/7/7 and MEPC 76/7/8 were of the view that the proposal was a short-term measure to be approved at MEPC 77 in November 2021 and established before 2023; had not been designed as a market-based measure (MBM); that there were no regulatory obstacles to including the necessary legal provisions in MARPOL Annex VI; was fully aligned with the purpose of the MARPOL Convention of contributing to the protection of the marine environment; and that there was a need to approve the amendments to MARPOL Annex VI rapidly for the IMRB to have the biggest impact in terms of promoting R&D projects.

7.68 The Committee also noted the impact assessment on States accompanying the IMRB proposal, as set out in document MEPC 76/7/8, which had assessed the principal potential negative economic impacts on States of a mandatory US\$2 per tonne R&D contribution on

marine bunker fuel oil costs, freight rates, the price of shipped cargoes to consumers, and the impact on States' economies and GDP, and that the assessment concluded that the IMRB proposal would have no disproportionately negative impact on States, including LDCs and SIDS, and on States that were geographically distant from their markets.

7.69 The Committee also had for its consideration the following commenting documents:

- .1 MEPC 76/7/20 (Argentina et al.) commenting on the mandate, purpose and legal mechanism of the IMRB; emphasizing that the IMRB should be consistent with the principle of common but differentiated responsibilities and respective capabilities (CBDR-RC) in the light of different national circumstances to support the development and deployment of low-carbon and zero-carbon fuels and technologies in developing countries, in particular SIDS and LDCs; that it would be more appropriate to establish a subsidiary body under IMO, with management body equally represented by developed and developing countries from different geographic regions; and that it was premature to set up the IMRB and IMRF through amendments to MARPOL;
- .2 MEPC 76/7/45 (ICS et al.) providing further clarifications on the IMRB/IMRF proposal, in particular in response to document MEPC 76/7/20; suggesting that finalization of the IMRB/IMRF and consideration of possible MBMs should be discussed in parallel and that both measures should be seen as complementary rather than as "either/or" alternatives; agreeing that the IMRB should be cognizant of CBDR-RC and resolution MEPC.229(65) while also highlighting the requirements for all ships to give full and complete effect, regardless of flag, to implementing mandatory measures to ensure the effective implementation of the strategy and the principles of non-discrimination and no more favourable treatment;
- .3 MEPC 76/7/49 (Marshall Islands and Solomon Islands) suggesting that there was already sufficient investment going into shipping decarbonization R&D; that the IMRB/IMRF would not provide significantly additional support to accelerate the deployment of zero-carbon new fuels and energy sources in this decade, in line with the Initial Strategy; that the IMRB/IMRF would not ensure that funds would be available to provide targeted and significant support to ship energy and fuel transition in developing countries and particularly SIDS and LDCs; and that IMO could better provide the functionality of the IMRB/IMRF through the more efficient, comprehensive and appropriate policy option based on a \$100 carbon levy, as proposed in document MEPC 76/7/12 (Marshall Islands and Solomon Islands);
- .4 MEPC 76/7/57 (Turkey) expressing concerns that the refined proposal still did not provide enough clarity on the issue of the management of intellectual property rights (IPRs) related to R&D; recommending establishing a mechanism for the management of IPRs; that patents should be made available and accessible; that patented technologies should be enjoyed without discrimination as to the place of invention and whether products were imported or locally produced; and that the outcome of R&D activities funded by the entire maritime cluster would be used in an equitable and fair manner by all; and
- .5 MEPC 76/7/58 (Turkey) noting that, while the IMRB was listed under candidate short-term measures in the Initial Strategy, the Strategy did not say that the IMRB would have to be implemented via a stand-alone new fund;

therefore suggesting that the IMRB and the establishment of a new fund would need to be evaluated separately; and that more clarity was required in relation to structure, member selection procedure and criteria of the IMRB Nominating Committee as well as the financial structure of the R&D Fund proposing a funding method differentiated by the development status of States.

7.70 The Committee noted document MEPC 76/INF.16 (ICS) containing information about an ICS report entitled 'Catalysing the Fourth Propulsion Revolution', which looked into different options to help decarbonize the global shipping fleet and highlighted the urgent need to accelerate research and development of zero-carbon technologies and fuels for maritime application in order to meet the GHG reduction targets set by the Initial IMO GHG Strategy.

7.71 In the ensuing discussion during which not all delegations were able to express their view due to time constraints, the following views, inter alia, were expressed:

- .1 international shipping's ability to meet the ambitions set out in the Initial IMO GHG Strategy as well as the Paris Agreement's temperature goals would require a fundamental shift to alternative low-carbon and zero-carbon fuels and technologies; therefore, the acceleration of R&D activities to develop alternative low-carbon and zero-carbon fuels should be encouraged;
- .2 the establishment of an international maritime R&D board would be a first but necessary step to support innovation and to accelerate the introduction of low-carbon and zero-carbon technologies and fuels for use in the international maritime sector, but would not incentivize behavioural change and therefore could not be categorized as an MBM;
- .3 the co-sponsors had taken into consideration most comments made by MEPC 75, as reflected in the revised submission;
- .4 to further support the decarbonization of shipping, the IMRB/IMRF could quickly support the delivery of field-proven technologies, which was a prerequisite for the further uptake and broad deployment of such technologies;
- .5 there was a need to support the large-scale deployment of alternative fuels and technologies in developing countries through effective transfer of technologies, capacity-building and technical cooperation within the maritime community; however, the proposed IMRB and its associated fund would not meet that need as it was designed to only support R&D but not the deployment or uptake of alternative fuels, and corresponding investments required in fuel production, port and bunkering infrastructures;
- .6 in line with UNFCCC and Green Climate Fund (GCF) principles, developing and developed countries from different geographic regions should be equally represented in the management of the IMRB;
- .7 this proposal would be essential to accelerate shipping's transition through decarbonization and the proposal should be finalized with a view to approval at MEPC 77;

- .8 while the proposal had certainly been improved since the last session, there still was no real incentive to create real demand for the uptake of low-carbon fuels, which would require a market-based measure;
- .9 the IMRB proposal did not include an appropriate mechanism to ensure equitable access to the required technology, fuels and ship designs and could increase the gap between those developed countries who owned the next generation technologies, and those developing countries who could not afford them and that, therefore, the transfer of technology had to be ensured;
- .10 the proposal was not properly specified in SMART terms (specific, measurable, achievable, realistic, time-bound);
- .11 the IMRF was a complex system and should be evaluated and compared with other proposals for mid- and long-term measures;
- .12 the Organization should look at alternative ways to generate funds to facilitate and finance technology transfer to developing countries, including possible complementary sources, such as cooperation with the Green Climate Fund (GCF);
- .13 the proposed IMRB, although not setting a price on carbon, could be a useful tool to accelerate the transition; however, it should not be considered in isolation but be included as part of the consideration of mid- and long-term measures to be conducted immediately after MEPC 76;
- .14 the provisions on intellectual property rights did not provide sufficient guarantees to ensure fair access to the results of research and development funded by the IMRB;
- .15 Member States' obligations for technology transfer should be governed by the resolution on *Promotion of technical cooperation and transfer of technology* (MEPC.229(65)) and fulfilled through IMO, not a subsidiary organ;
- .16 the IMRB would not introduce new international shipping rules and standards concerning the prevention and control of marine pollution from ships; therefore, setting up the IMRB through amendments to the MARPOL Convention would present significant legal challenges;
- .17 in order to move towards decarbonization of international shipping, the Organization should make careful use of its limited resources and prioritize the discussions on more far-reaching mid- and long-term measures;
- .18 it was questionable whether MEPC was best placed to provide oversight of the fund and how intellectual property be addressed;
- .19 alternative solutions such as voluntary contributions to an R&D trust fund should be further explored;
- .20 the proposed levy was well in the margin of daily fuel price fluctuations and would therefore not constitute any negative impacts on States;

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- .21 given the lack of ambition in the agreed short-term measure, the next basket of measures should be much more ambitious than the IMRB in order to reach the levels of ambition of the Initial Strategy;
- .22 the proposed IMRB would provide a good complement to a future market-based measure and could be developed in parallel with future midterm measures;
- .23 the proposed IMRB was built upon a robust structure and went in the right direction, but its further consideration should take place in a structured manner as part of the work plan;
- .24 given the vast amount of R&D currently deployed in shipping's decarbonization, the IMRB was not needed; however, there was an urgent need for certainty on IMO's direction for future years;
- .25 the proposed IMRB could provide useful tools for future discussions on market-based measures;
- .26 the proposed levy would have severe negative impacts on developing countries and in accordance with the principles of CBDR-RC, the IMRB funds should be used to support developing States, in particular SIDS and LDCs;
- .27 nothing should be decided at this stage by the Committee regarding further consideration of the IMRB proposal because there had been no consensus on many issues; the priority should rather be given to the discussion on mid- and long-term measures;
- .28 the matter of CBDR-RC had already been adequately addressed by the Organization in the resolution on *Promotion of technical cooperation and transfer of technology* (MEPC.229(65)) and therefore no further discussion on funding models would be needed while also recalling that obligations in MARPOL were on ships and not on States; and
- .29 the proposed amendments to MARPOL Annex VI laying down the legal structure of the IMRB were solid and should be approved at MEPC 77 without any further delay.

7.72 Due to lack of time, the Committee could not finish the full consideration of the revised IMRB proposal and related commenting documents as not all delegations were able to express their views. Consequently, the Committee agreed that the discussion would be resumed at its next session.

7.73 The Committee noted statements by the delegations of Belgium, India and the United Arab Emirates as set out in annex 20.

Proposals on the development of mid- and long-term measures following up on the Initial IMO GHG Strategy and supporting working arrangements

7.74 The Committee had for its consideration the following documents containing proposals on the development of mid- and long-term measures following up on the Initial Strategy and supporting working arrangements falling into three distinct groups as set out below:

- .1 Proposal for a work plan for the development of mid- and long-term measures
 - .1 MEPC 76/7/10 (Australia et al.) proposing a work plan for the development of mid- and long-term GHG reduction measures in accordance with the Initial IMO Strategy and consisting of the following three phases:
 - .1 Phase I – Collation and initial consideration of proposals for measures;
 - .2 Phase II – Assessment and selection of measures(s) to further develop; and
 - .3 Phase III – Development of (a) measure(s) to be finalized within (an) agreed target date(s);

and suggesting that, to make the collation and initial consideration of proposals for measures possible, the work plan should identify key issues to be considered for each proposed mid-and long-term measure, including the main characteristics and features of the measure; identification of emissions reduction potential; potential implications for the shipping industry; implementation and enforcement aspects; legal aspects and indication of total workload for the Organization; and
 - .2 MEPC 76/7/61 (WWF et al.) commenting on document MEPC 76/7/10 and suggesting that the content of the work plan and timelines described in document MEPC 76/7/10 were not fully aligned with achieving the temperature goals of the Paris Agreement and keeping global warming below 1.5°C and to that purpose proposing amendments to the work plan.
- .2 Other proposals on the development of mid- and long-term measures and supporting working arrangements:
 - .1 MEPC 76/7/2 (Norway) setting out the following three concepts for a possible regulatory mechanism for the effective uptake of alternative low-carbon and zero-carbon fuels: a fuel CO₂/GHG limit; emission cap and trading; and carbon intensity indicators and credit trading/fleet averaging; and proposing that further development of these concepts should take place in a structured process established by the Committee in order to identify the desired regulatory mechanism;
 - .2 MEPC 76/7/9 (Australia et al.) containing a proposal for new working arrangements to accelerate discussions on various GHG-related work streams, in particular the establishment of a Standing Technical Group on Reduction of GHG Emissions from Ships (ST-GHG) to replace the Intersessional Working Group on Reduction of GHG Emissions from Ships (ISWG-GHG) in the future;

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- .3 MEPC 76/7/11 (Belgium et al.) aiming to answer the questions raised at MEPC 75 regarding legal possibilities of IMO measures, in particular midterm (economic) measures; suggesting that the IMO Convention gave the IMO very broad objectives and powers to achieve them and contending that as long as IMO Member States agreed to a measure and it complied with IMO procedures, it would be valid; that the IMO Convention placed no restriction on IMO agreeing to measures that would raise money or set up an independent body to administer those funds; and proposing to reopen the debate on increasing the level of ambition in the IMO Strategy and that all further negotiations on measures would be conducted in the light of the suggested need for such revision of the Initial Strategy;
- .4 MEPC 76/7/15 (Denmark et al.) outlining the importance of starting work on midterm GHG reduction measures that would incentivize the use of sustainable low-carbon and zero-carbon fuels in international shipping; arguing that the transition to sustainable low-carbon and zero-carbon fuels should start well before 2030 and that there was an imminent need for midterm measures to incentivize the use of these fuels; proposing criteria which the midterm measures should meet and suggesting measures to incentivize the use of low-carbon and zero-carbon fuels; and proposing a dedicated agenda item at ISWG-GHG on "the consideration of midterm measures aimed at incentivizing the use of sustainable low- and zero-carbon fuels" and a dedicated work stream on how to measure GHG emissions from alternative fuels and associated sustainability criteria;
- .5 MEPC 76/7/39 (ICS et al.) proposing that the Committee should decide in principle to commence deliberations on mandatory MBMs; and suggesting that the Committee should commence discussions before 2023 with a view to considering key issues such as the development of principles as to how monies generated from MBMs should be used; and that the Committee should agree to allow consideration of different candidate measures, including short-term measures such as the IMRB/IMRF proposal and midterm measures such as MBMs, in parallel;
- .6 MEPC 76/7/40 (Belgium) commenting on documents MEPC 76/7/2 (Norway), MEPC 76/7/11 and MEPC 76/INF.22 (Belgium et al.) and suggesting that the two proposed levies in documents MEPC 76/7/7 (Denmark et al.) and document MEPC 76/7/12 (Marshall Islands and Solomon Islands) were similar in the respect that no payments would be collected by States and no disbursements would be made by any State; that they were conceptually similar to the requirement of the International Convention on Civil Liability for Oil Pollution Damage (CLC) for certain ships to maintain insurance and that both of the levy proposals would create a separate entity that received and transmitted the fund; and concluding that the proposed levies could be adopted through the same legal pathways as suggested in document MEPC 76/7/11, such as, for example, a modification of MARPOL Annex VI;

- .7 MEPC 76/7/42 (Netherlands and OECD) commenting on document MEPC 76/7/15 (Denmark et al.) underlining the importance of starting work on midterm measures, in particular carbon pricing and/or fuel standards, by building on discussions held during two workshops on medium-term measures to decarbonize shipping, organized by the International Transport Forum at OECD and the Netherlands Ministry of Infrastructure and Water Management at the beginning of 2021; introducing three conceptual elements to help answer which midterm measures and in which sequence should be implemented: market failures, interdependencies and transition pathways; and suggesting commencing the consideration of midterm measures, with a priority on measures that could create a market for zero-carbon shipping namely carbon pricing and/or fuel standards at a significant stringency and with revenue to support deployment;
 - .8 MEPC 76/7/60 (Pacific Environment) commenting on documents MEPC 76/7/7 (Denmark et al.) and MEPC 76/7/12 (Marshall Islands and Solomon Islands) and describing the general effects of a possible GHG levy and comparing these effects to those of alternative measures for the purpose of demonstrating that an ambitious GHG levy on ships would be a more effective stand-alone measure to raise revenue for shipping's low and zero-emission transition than a small fuel tax and a research and development fund; suggesting that there were economic opportunities created by a levy for the producers of low-carbon fuels and those involved in the retrofitting of ships; and concluding that the IMRB proposal would not achieve similar results to that of a significant GHG levy despite the marginally increased research, as no revenue would be available to support implementation and the slight cost increase would not create a market for new energy sources; and
 - .9 MEPC 76/INF.22 (Belgium et al.) presenting a study on the legal basis of candidate IMO measures to reduce GHG emissions from ships which suggested that IMO would have the power to regulate the climate impacts of international shipping through the powers conferred on it by the IMO Convention; that IMO would have the authority to address climate issues; that none of IMO's powers would be limited to non-economic measures nor would the establishment of an independent body be prohibited; and that there would be no legal limits placed upon the use of the tacit procedure to amend existing Annexes to MARPOL.
- .3 Proposal on the establishment of a universal mandatory greenhouse gas levy
- .1 MEPC 76/7/12 (Marshall Islands and Solomon Islands) containing a proposal for a mandatory levy on GHG emissions from international shipping as an immediate priority measure with a view to incentivizing a rapid shift away from fossil fuel with the highest priority; proposing an entry level by 2025 of \$100 per tonne carbon dioxide equivalent on heavy fuel oil with upward ratchets in a five-yearly review cycle; and suggesting a formula for disbursement of monies raised and to reopen the debate on increasing the level of ambition required in the Revised Strategy;

- .2 MEPC 76/INF.21 (Marshall Islands) presenting a Sabin Center White Paper discussing the principles of international law that bear the Organization's authority to adopt an MBM to reduce GHG emissions and whether any of these principles provided a basis for IMO to allocate revenue generated by an MBM to SIDS and other States that were particularly vulnerable to climate change impacts. The main findings of this study are referenced in document MEPC 76/7/12 (Marshall Islands and Solomon Islands);
- .3 MEPC 76/INF.23 (Marshall Islands) presenting an initial impact assessment, prepared to accompany the proposal set out in document MEPC 76/7/12; discussing possible impacts of the proposed levy on States, including connectivity to markets, cargo value and type, transport dependency and costs, food security, disaster response, cost-effectiveness, and socio-economic progress and development; and suggesting that the primary impact of the levy would be positive in minimizing damages attributed to the impacts of climate change, and that its design would ensure that disproportionate negative impacts could be addressed; and
- .4 MEPC 76/INF.24 (Marshall Islands) presenting a literature review and analysis of available evidence suggesting supporting a 1.5°C compatible GHG price on international shipping; that any tax/levy should be advanced under the principle of polluter pays, that it should have a relatively high entry price from inception, and that the majority of revenue raised should be transferred to the globally well-established environmental funds as compensation to the most pressing mitigation and adaptation needs of the climate most vulnerable States.

7.75 The Committee noted that, due to the severe time constraints it was faced with, it was not possible to have a detailed consideration of the above-mentioned documents. However, considering that the proposals contained therein were important in assisting the Committee to progress its consideration of the mid- and long-term measures, the Committee had an initial consideration of these documents.

Proposal for a work plan for the development of mid- and long-term measures

7.76 The Committee noted that document MEPC 76/7/10 had been co-sponsored by a large number of Member States (22) representing both developed and developing States and various geographical regions, putting forward a concrete process on how to structure the Organization's discussion on mid- and long-term measures, including the consideration of impacts on States of candidate measures in three distinct phases.

7.77 In the ensuing discussion, all delegations that spoke supported the proposed work plan as a good starting point and an effective and transparent way forward to structure the Committee's future work on the development of mid- and long-term measures as well as to communicate the Organization's commitment to accelerate their consideration. Some of these delegations highlighted that the development of mid- and long-term measures was likely to entail complex technical, legal and economic considerations which would necessitate a structured approach.

7.78 In this context, several delegations highlighted the importance for the Organization to start immediately the consideration of concrete midterm measures, with a view to agreeing on ambitious measures, as soon as possible but no later than 2025 to be able to effectively reduce GHG emissions from international shipping as a matter of urgency and to enhance investment certainty for the industry.

7.79 Several delegations expressed the view that the work plan should be approved at this session so as to initiate concrete work on phase I immediately. Some of these delegations further argued, also referring to document MEPC 76/7/61 (WWF et al.), that the timelines set out in the work plan for phases II and III could be further tightened with a view to finalizing midterm measures, including possible market-based measures, by 2025. Some of these delegations stated further that, regardless of these timelines, the Committee could take any decision at the appropriate time, as these were just indicative.

7.80 The Committee noted an intervention by Argentina, supported by several other delegations, expressing support to organize future work on the basis of the work plan while proposing amendments to the work plan such that the assessment of impacts on States should be more prominent under phase II of the work plan and to also include a new phase IV to follow up on impacts on States.

7.81 The Committee noted an intervention by the observer of OCIMF referring to the outcome of the Correspondence Group on Possible Introduction of EEDI Phase 4 as set out in document MEPC 76/6 (Japan), which also contained a technological feasibility analysis of future technology and fuels which could be considered in the context of the work plan.

7.82 The Committee noted also an intervention by the observer of RINA emphasizing the need for the Organization to urgently initiate work on including the use of ammonia and hydrogen in the IGF Code; to recognize the use of batteries in the EEDI and EEXI guidelines; and to more prominently advocate the use of wind propulsion.

7.83 The Committee noted further an intervention by the observer of EUROMOT highlighting the need for regulatory certainty in planning investments in low-carbon technologies and fuels; that internal combustion engines were already capable of running on a wide range of alternative fuels but that incentives were needed to drive the uptake of zero-carbon fuels; and that the Organization should develop a well-to-wake approach to quantify GHG emissions from marine fuels.

7.84 With reference to the proposal to identify regulatory gaps regarding safety of alternative fuels in document MEPC 76/7/2 (Norway), the Committee noted the view by the observer of IACS, supported by a number of observers, regarding the need to account for the safety aspects of future measures, and IACS' proposal to reflect the assessment of the impacts of future measures on safety of ships in phase II of the work plan proposed in document MEPC 76/7/10 (Australia et al), and determine a mechanism to bring the action to the attention of the Maritime Safety Committee. Further, the observer of IACS informed the Committee that IACS had started work on the safety and environmental aspects associated with new energy-efficient technologies and alternative fuels, and planned to update relevant Committees of its progress.

7.85 Following consideration, the Committee approved the work plan as set out in annex 14, and requested ISWG-GHG 10 to use the work plan as a basis and as guidance for its further work on the consideration of concrete proposals for mid- and long-term measures. In this regard, operative paragraph 7 of resolution MEPC.328(76) was noted, and also that the work plan was to be applied in accordance with the Initial Strategy.

7.86 As requested, the statements made by the delegations of Belgium, Germany and India are set out in annex 20.

Other proposals on the development of mid- and long-term measures and supporting working arrangements

7.87 The Committee noted that documents MEPC 76/7/2 (Norway), MEPC 76/7/9 (Australia et al.), MEPC 76/7/11 (Belgium), MEPC 76/7/15 (Denmark et al.), MEPC 76/7/39 (ICS et al.), MEPC 76/7/40 (Belgium), MEPC 76/7/42 (Netherlands and OECD), MEPC 76/7/60 (Pacific Environment) and MEPC 76/INF.22 (Belgium et al.) contained various proposals with regard to the development of mid- and long-term measures and supporting working arrangements, including, inter alia, concepts for a regulatory mechanism for the uptake of alternative low-carbon and zero-carbon fuels; future GHG working arrangements, legal bases of candidate measures in MARPOL Annex VI; description of general effects of a possible GHG levy; and all underlining the importance of starting work on midterm GHG reduction measures as soon as possible.

7.88 In the ensuing discussion, different views were expressed by many delegations on the various proposals.

7.89 Several delegations expressed support for the proposals set out in document MEPC 76/7/2 (Norway) to develop measures that could meet the 2050 level of ambition in the Strategy, using the proposed possible concepts for a regulatory mechanism such as the CO₂/GHG limit and an emission cap and trading mechanism. However, some delegations expressed the view that the levy mechanism should also be considered as a possible regulatory mechanism.

7.90 Several delegations expressed support for the proposed future working arrangements on GHG-related matters as set out in document MEPC 76/7/9 (Australia et al.), including the proposed new Standing Technical Group on Reduction of GHG Emissions from ships and associated terms of reference, to enhance the Organization's efficiency in addressing GHG reduction from international shipping. However, several other delegations expressed the view that the proposal was premature and would require more detailed consideration, also taking into account any budgetary implications, which could also require review and approval by Council, as well as the impacts on smaller delegations of having multiple parallel work streams, and preferred to initiate work on the basis of the proposed work plan and to continue on the basis of the current intersessional working group and to consider any consequential changes to the working arrangements thereafter.

7.91 Several delegations further supported document MEPC 76/7/15 (Denmark et al.) in particular the inclusion of dedicated workstreams on the consideration of midterm measures aimed at incentivizing the use of sustainable low- and zero-carbon fuels and on how to measure GHG emissions from alternative fuels and on which sustainability criteria should apply in the terms of reference of ISWG-GHG 9 and the intersessional working group meetings thereafter.

7.92 Several delegations reiterated the importance of starting to work on midterm measures, notably possible market-based measures (MBMs), as soon as possible, also referring to documents MEPC 76/7/39 (ICS et al.) and MEPC 76/7/42 (Netherlands and OECD). Several delegations further advocated the importance of initiating concrete work on the revision of the Initial Strategy in 2021 to ensure a higher level of ambition. However, several other delegations expressed the view that this was premature and that the various proposals would require careful consideration. One delegation suggested that the Committee should invite Member States and international organizations to include appropriate experts (i.e. in renewable energy production, ports, etc.) in their delegation.

7.93 Following consideration, the Committee noted the support by many delegations for the various proposals for concepts, process and working arrangements to be further considered when developing midterm GHG reduction measures and to further consider these documents at ISWG-GHG 10 as part of dedicated workstreams on midterm measures and on GHG life-cycle assessments.

7.94 In conclusion, the Committee noted the various proposals contained in documents MEPC 76/7/2, MEPC 76/7/9, MEPC 76/7/11, MEPC 76/7/15, MEPC 76/7/39, MEPC 76/7/40, MEPC 76/7/42, MEPC 76/7/60 and MEPC 76/INF.22 and invited ISWG-GHG 10 to further consider these in the context of phase I of the work plan together with other future proposals.

Proposal on the establishment of a universal mandatory greenhouse gas levy

7.95 The Committee considered documents MEPC 76/7/12 (Marshall Islands and Solomon Islands), MEPC 76/INF.21, MEPC 76/INF.23 and MEPC 76/INF.24 (Marshall Islands) proposing, inter alia, an entry level mandatory levy of \$100 per tonne carbon dioxide equivalent on heavy fuel oil by 2025 and a formula for disbursement of monies raised, an initial impact assessment accompanying the proposal, a study on principles of international law and the adoption of a market-based mechanism for greenhouse gas emissions from shipping as well as a literature review and analysis of available evidence supporting a 1.5°C compatible carbon price on international shipping.

7.96 In the ensuing discussion, several delegations welcomed the proposal set out in document MEPC 76/7/12, and expressed support in principle for it, also recognizing the urgency of initiating discussions on concrete proposals for an MBM. Some of these delegations expressed support for the need to define a carbon price to provide a signal to the industry and energy providers and to generate funds to provide real support to SIDS and LDCs.

7.97 Notwithstanding, while recognizing the urgent need to develop a market-based measure, some delegations expressed the view that a levy would not necessarily be the most suitable basis for an MBM; that defining the exact amount of the levy would have to be subject to a cost-benefit analysis and impact assessment; that distribution of revenues would have to be further assessed; and that the proposal would have to be considered along with other proposals for an MBM under phase 1 of the work plan.

7.98 Some delegations opposed the proposed use of the Green Climate Fund, set up under UNFCCC, as a mechanism to collect and distribute funds, but instead expressed the view that such a mechanism should be kept under the auspices of IMO, in accordance with the principles of the IMO Convention, the MARPOL Convention and the Initial Strategy.

7.99 The delegation of Indonesia and several other delegations expressed the view that the proposal was premature and would have considerable negative impacts on the maritime trade serving developing States; that the universal nature of the levy was incompatible with the implementation of CBDR-RC; that there were no sufficient alternative low- or zero-carbon fuels available at this stage that ships could revert to; that possible impacts on States of the proposal would have to be assessed in more detail; other ways of incentivizing the use of low-carbon alternative fuels should be assessed equally; and that the proposal therefore should not be further considered at this stage.

7.100 In this context, the Committee noted statements by the delegations of the Cook Islands, Indonesia and Vanuatu concerning the need to properly address the negative impacts of the short-term measure and to define disproportionate negative impacts before entry into force of MARPOL Annex VI amendments. As requested, the statements are set out in annex 20.

7.101 Following consideration, the Committee noted the proposal for a market-based measure based on a mandatory carbon levy as set out in document MEPC 76/7/12 and the diverging views and concerns expressed regarding the proposal, in particular with regard to prejudging a discussion on main features and implications of possible midterm candidate GHG reduction measures.

7.102 The Committee agreed to further consider documents MEPC 76/7/12, MEPC 76/INF.21, MEPC 76/INF.23 and MEPC 76/INF.24, together with other future proposals for midterm measures, at ISWG-GHG 10 in the context of phase I of the work plan.

7.103 In this context, the Committee noted an intervention by Solomon Islands, supported by the delegations of Canada, Denmark, Finland, France, Germany, Ireland, Portugal, the Marshall Islands, the Netherlands, New Zealand, Sweden and Tuvalu, stating that in view of the considerable support for the proposal set out in document MEPC 76/7/12, including support to initiate consideration of market-based measures as soon as possible, the proposal in document MEPC 76/7/12 should be considered by ISWG-GHG 10 first instead of by MEPC 77.

7.104 In this context, the Committee also noted an intervention by Argentina, supported by the delegations of Brazil, China, Malaysia, South Africa and the United Arab Emirates, stating that many delegations expressed concern at market-based measures, due to their clear impact on developing countries, including the proposal as set out in document MEPC 76/7/12.

Matters deferred to MEPC 77

7.105 As proposed in document MEPC 76/1/1 (annex 3), the Committee agreed to defer the consideration of documents MEPC 76/7/1 (Norway), MEPC 76/7/17 (Republic of Korea), MEPC 76/7/22 (Denmark, France, Greece, Japan, Singapore and ICS), MEPC 76/7/31 (Comoros and RINA), MEPC 76/7/32 (India), MEPC 76/INF.30 (Comoros and RINA), MEPC 76/INF.31 (WWF), MEPC 75/7/7 (Norway), MEPC 75/7/10 (FOEI et al.), MEPC 75/INF.25 (FOEI et al.) and MEPC 75/INF.26 (Comoros) to MEPC 77.

8 FOLLOW-UP WORK EMANATING FROM THE ACTION PLAN TO ADDRESS MARINE PLASTIC LITTER FROM SHIPS

8.1 Owing to time constraints, the Committee agreed to defer the consideration of documents MEPC 76/8 and MEPC 75/8 (Secretariat), MEPC 75/8/1 and MEPC 75/8/2 (FAO), MEPC 75/8/3 (Singapore), MEPC 75/8/4 (Vanuatu), MEPC 75/8/5 (Secretariat), MEPC 75/INF.19 (Secretariat of the Basel Convention) and MEPC 75/INF.23 (Secretariat) to MEPC 77.

8.2 In this regard, the delegation of Vanuatu stated that consideration of the follow-up work emanating from the Action Plan to Address Marine Plastic Litter from Ships by MEPC 77 should be safeguarded when the arrangements for the next session of the Committee were developed in due course, taking into account that consideration of the documents under this agenda item had been deferred twice since MEPC 75.

9 POLLUTION PREVENTION AND RESPONSE

MATTERS CONSIDERED BY CORRESPONDENCE PRIOR TO THE VIRTUAL MEETING

9.1 In accordance with the arrangements of the remote session, as outlined in document MEPC 76/1/1 (paragraphs 14 to 17) and its annex 2 (section 6 on agenda item 9) (refer also to the updated proposal by the Chair in paragraph 9 of document MEPC 76/1/1/Add.1), the Committee considered by correspondence, prior to the virtual meeting, the following documents:

- .1 MEPC 75/10/Add.1 (Secretariat), setting out the action requested of the Committee in connection with the remaining matters emanating from the seventh session of the PPR Sub-Committee (paragraphs 3.7 to 3.10, and 3.13 only); and
- .2 MEPC 76/9/7 (Secretariat), setting out the action requested of the Committee in connection with matters emanating from the eighth session of the PPR Sub-Committee (paragraphs 2.2 to 2.5 and 2.8 to 2.11 only).

9.2 During the virtual meeting, the Committee reconfirmed the Chair's proposals in annex 2 to document MEPC 76/1/1, as modified by paragraph 9 of document MEPC 76/1/1/Add.1, as set out in the following paragraphs 9.3 to 9.10.

Actions to address marine plastic litter from ships

9.3 The Committee approved MEPC.1/Circ.893 on *Provision of adequate facilities at ports and terminals for the reception of plastic waste from ships* and MEPC.1/Circ.894 on *Sharing of results from research on marine litter and encouraging studies to better understand microplastics from ships*.

Procedures for PSC on the use of electronic record books

9.4 Having considered the outcome of PPR 7 in relation to the request by III 6 to the PPR Sub-Committee to further review the draft amendments to the *Procedures for port State control* on the use of electronic record books, as set out in annex 15 to document PPR 5/24, that had not been included in the *Procedures for port State control, 2019* (A.1138(31)) by III 6, the Committee:

- .1 endorsed the development of interim guidance for surveyors, including a sample form, to facilitate the endorsement of a cargo operation in an electronic Cargo Record Book; and
- .2 noted that PPR 7 had invited III 7 to develop the interim guidance and to consider whether there was a need to incorporate the guidance in the next revision of the *Procedures for port State control*.

Unified interpretations to the NO_x Technical Code 2008

9.5 The Committee approved MEPC.1/Circ.895 on *Unified interpretations to the NO_x Technical Code 2008, as amended*.

Guidelines for port State control under MARPOL Annex VI

9.6 The Committee noted that PPR 7 had invited III 7 to review document PPR 7/2/5 (IMarEST), with a view to developing appropriate amendments to the *2019 Guidelines for port State control under MARPOL Annex VI chapter 3* (resolution MEPC.321(74)) to include provisions relating to chapter 4 of MARPOL Annex VI.

Safety and pollution hazards of chemicals

GESAMP/EHS 57

9.7 The Committee noted the outcome of GESAMP/EHS 57 and that the full report from the meeting, together with the revised GESAMP Composite List, had been disseminated as PPR.1/Circ.8.

Evaluation of products and cleaning additives

9.8 With regard to the categorization of liquid substances, the Committee:

- .1 concurred with the evaluation of products and their respective inclusion in lists 1, 3 and 5 of MEPC.2/Circ.26 (issued on 1 December 2020), with validity for all countries and with no expiry date;
- .2 noted that for three products already listed in chapter 17 of the IBC Code that were subsequently reassessed by ESPH 26, namely "Creosote (coal tar)", "Sodium chlorate solution (50% or less)", and "Ethyl tert-butyl ether", a distinguishing qualifier was appended to the corresponding product names in list 1 of MEPC.2/Circ.26 to facilitate shipment of the products with the updated carriage requirements;
- .3 noted that information regarding the reassessment of existing products and the use of a distinguishing qualifier was included in section 3 of the MEPC.2 circular on *Provisional categorization of liquid substances in accordance with MARPOL Annex II and the IBC Code*, starting from MEPC.2/Circ.26;
- .4 concurred with the evaluation of cleaning additives and their inclusion in annex 10 of MEPC.2/Circ.26; and
- .5 endorsed the establishment of a generic entry for "Palm oil mill effluent (POME) technical oil" in list 1 of the MEPC.2 circular on *Provisional categorization of liquid substances in accordance with MARPOL Annex II and the IBC Code*, with validity for all countries, without an expiry date.

Mitigation measures to reduce risks of use and carriage for use of heavy fuel oil as fuel by ships in Arctic waters

9.9 With regard to the draft guidelines on mitigation measures to reduce risks of use and carriage for use of heavy fuel oil (HFO) as fuel by ships in Arctic waters (PPR 8/6, annex 2) being developed by the PPR Sub-Committee, the Committee noted that PPR 7 had requested:

- .1 the NCSR Sub-Committee to review section 2 (Navigational measures) and section 5 (Communication) of the draft guidelines;
- .2 the SDC Sub-Committee to review paragraph 4.4 of the draft guidelines, concerning the location of fuel tanks; and
- .3 the HTW Sub-Committee to review section 7 (Familiarization, training and drills),

with a view to advising PPR 9 of the outcome of their consideration.

MATTERS DEFERRED TO MEPC 77

9.10 Owing to time constraints, the Committee agreed to defer to MEPC 77 consideration of the following:

- .1 paragraphs 2.19 and 2.20 of document MEPC 75/10 (Secretariat), together with documents MEPC 75/10/2 (United States), MEPC 75/10/3 (IACS), MEPC 76/9/3 (Republic of Korea), and MEPC 76/9/4 (China), regarding the draft 2020 guidelines for exhaust gas cleaning systems;

- .2 paragraphs 2.21 to 2.23 of document MEPC 75/10, together with documents MEPC 75/10/5 (CLIA), MEPC 75/INF.10 (Sweden), MEPC 75/INF.13 (Greece), MEPC 76/9/1 (ICES), MEPC 76/9/2 (Austria et al.), MEPC 76/9/6 (Japan), MEPC 76/9/8 (FOEI et al.), MEPC 76/INF.5 (ICES), MEPC 76/INF.11 (Belgium), MEPC 76/INF.33 (Japan), MEPC 76/INF.38 (Cyprus) and MEPC 76/INF.42 (China), regarding the title and scope of work of output 1.23 concerning discharge water from exhaust gas cleaning systems;
- .3 paragraph 3.4 of document MEPC 75/10/Add.1 (Secretariat) and paragraphs 2.6 and 2.7 of document MEPC 76/9/7 (Secretariat), together with documents MEPC 75/5/4 (FOEI et al.), MEPC 75/5/5 (FOEI et al.), MEPC 75/5/6 (ICS), MEPC 75/5/7 (IPIECA and IBIA), MEPC 75/10/6 (FOEI et al.), MEPC 76/5 (ISO), MEPC 76/9/9 (FOEI et al.), MEPC 76/9/10 (Greenpeace International et al.), MEPC 76/INF.43 (China), MEPC 76/INF.44 (China), and MEPC 76/INF.45 (China), concerning the output on reduction of the impact on the Arctic of Black Carbon emissions from international shipping;
- .4 paragraph 3.6 of document MEPC 75/10/Add.1, together with documents MEPC 75/10/4 (IACS) and MEPC 76/9/5 (INTERTANKO), concerning the review of the IBTS Guidelines and amendments to the IOPP Certificate and Oil Record Book;
- .5 paragraph 3.12 of document MEPC 75/10/Add.1 regarding the output proposed in document MEPC 74/14/4 (Norway); and
- .6 document MEPC 76/9 (Secretariat) on draft amendments to MARPOL Annex II.

10 REPORTS OF OTHER SUB-COMMITTEES

MATTERS CONSIDERED BY CORRESPONDENCE PRIOR TO THE VIRTUAL MEETING

Outcome of III 6

10.1 In accordance with the updated arrangements of the remote session, as outlined in document MEPC 76/1/1/Add.1 (paragraphs 14 and 15), the Committee considered by correspondence, prior to the virtual meeting, paragraphs 4.3 and 4.5 of document MEPC 75/11/1 (Secretariat), deferred from MEPC 75, setting out the action requested of the Committee in connection with the sixth session of the Sub-Committee on Implementation of IMO Instruments (III 6), with regard to two proposed new outputs. In this regard, the Committee noted that MSC 103 had agreed to include the two new outputs in the biennial agenda of the III Sub-Committee for 2022-2023 and the provisional agenda for III 8, with a target completion year of 2023, subject to concurrent decision by MEPC. The new outputs were on "Development of an entrant training manual for PSC personnel" and on "Development of guidance in relation to IMSAS to assist in the implementation of the III Code by Member States", respectively (MSC 103/WP.1/Rev.1, paragraphs 18.35 to 18.38).

10.2 During the virtual meeting, the Committee reconfirmed the endorsement of the Chair's proposals in paragraph 15 of document MEPC 76/1/1/Add.1, and agreed to include in the biennial agenda of the III Sub-Committee for 2022-2023 and the provisional agenda for III 8 an output on "Development of an entrant training manual for PSC personnel" and an output on "Development of guidance in relation to IMSAS to assist in the implementation of the III Code by Member States", both with a target completion year of 2023.

MATTERS DEFERRED TO MEPC 77**Outcome of SDC 7**

10.3 The Committee noted that, in accordance with document MEPC 76/1/1, paragraph 11.6 and annex 1, it would consider during the virtual meeting, under this agenda item, the outcome of SDC 7 (MEPC 76/10), which would entail the approval of amendments to MARPOL Annex I and, concurrently with the MSC, to the IBC Code, regarding watertight doors on cargo ships. However, in accordance with the updated arrangements of the remote session, as outlined in document MEPC 76/1/1/Add.1 (paragraph 12), the Committee also noted that MSC 103 had deferred the adoption of the related amendments to the 1988 Load Lines Protocol and the IGC Code to MSC 104, and had invited further relevant submissions (MSC 103/WP.1/Rev.1, paragraphs 3.19 and 3.33). In light of the above, and considering that the amendments were identical across all four instruments (MARPOL Annex I, 1988 Load Lines Protocol, and the IBC and IGC Codes), the Committee endorsed the Chair's proposal and agreed to defer the consideration of this matter to MEPC 77, taking into account the relevant outcome of MSC 104.

Process of updating the HSSC

10.4 The Committee recalled that, having noted that A 31 had invited MSC 102 and MEPC 75 to consider the proposals made in document A 31/10/2 (Germany et al.) on the process of updating the Survey Guidelines under the Harmonized System of Survey and Certification (HSSC), with a view to taking action as appropriate, and that MSC 102 had postponed consideration of this matter to MSC 103, MEPC 75 had also agreed to postpone consideration of this matter to this session. However, in accordance with the updated arrangements of the remote session, as outlined in document MEPC 76/1/1/Add.1 (paragraph 13), the Committee also noted that MSC 103 had further postponed the consideration of its relevant agenda item to MSC 104 (MSC 103/WP.1/Rev.1, paragraph 2.1); therefore, the Committee endorsed the Chair's proposal and agreed to defer the consideration of this matter to MEPC 77 taking into account the relevant outcome of MSC 104.

11 TECHNICAL COOPERATION ACTIVITIES FOR THE PROTECTION OF THE MARINE ENVIRONMENT

11.1 In accordance with the arrangements of the remote session, as outlined in document MEPC 76/1/1 (paragraphs 14 to 17) and its annex 2 (section 8 on agenda item 11), the Committee considered by correspondence, prior to the virtual meeting, the following documents:

- .1 MEPC 76/11 (Secretariat), providing an update on the activities implemented under the IMO Integrated Technical Cooperation Programme (ITCP) from 1 January to 31 December 2020 and the Thematic Priorities for the ITCP for the 2022-2023 biennium; and
- .2 MEPC 76/11/1 (REMPEC), providing an update from REMPEC for the period from 1 January to 31 December 2020.

11.2 During the virtual meeting, the Committee reconfirmed the Chair's proposals in annex 2 to document MEPC 76/1/1, as set out in the following paragraphs 11.3 to 11.5.

Update on activities under the ITCP

11.3 The Committee noted the information provided in documents MEPC 76/11 (Secretariat) and MEPC 76/11/1 (REMPEC) on the activities related to protection of the marine

environment under IMO's Integrated Technical Cooperation Programme (ITCP) and on activities implemented by the Regional Marine Pollution Emergency Response Centre for the Mediterranean Sea (REMPEC), respectively, in 2020.

11.4 The Committee approved the revised thematic priorities related to the marine environment, as set out in annex 2 to document MEPC 76/11 (Secretariat).

11.5 The Committee endorsed the reinstatement of a dedicated global programme on reducing atmospheric emissions from ships and in ports, and effective implementation of IMO's Initial GHG Strategy, for inclusion under the ITCP for the 2022-2023 biennium.

12 WORK PROGRAMME OF THE COMMITTEE AND SUBSIDIARY BODIES

Proposals for new output

12.1 The Committee took into account the provisions of the Committees' Method of Work (MSC-MEPC.1/Circ.5/Rev.2) and of the *Application of the Strategic Plan of the Organization* (resolution A.1111(30)) when assessing the proposals for new outputs.

Reduction of underwater noise from commercial shipping

12.2 The Committee had for its consideration the following documents in relation to the reduction of underwater noise from commercial shipping:

- .1 MEPC 75/14 (Australia et al.), proposing a new output to undertake a review of the 2014 *Guidelines for the reduction of underwater noise from commercial shipping to address adverse impacts on marine life* (MEPC.1/Circ.833) (2014 Guidelines) and identify next steps;
- .2 MEPC 76/12 (International Whaling Commission), in support of the proposal for a new output concerning a review of the 2014 Guidelines and identification of next steps, providing comments on document MEPC 75/14 and information on new activities of IWC since the summary of new information on impacts of underwater noise on marine life that IWC submitted in 2018 (MEPC 72/INF.9);
- .3 MEPC 76/12/1 (ACOPS), providing comments on document MEPC 75/14, supporting the proposed new output on underwater noise and emphasizing the pressing nature of the issue and the ongoing work in other international bodies that can be leveraged;
- .4 MEPC 76/12/2 (Germany and WWF), providing comments on document MEPC 75/14 and drawing attention to recent research findings submitted to and welcomed by the Arctic Council's Working Group on the Protection of the Arctic Marine Environment (PAME), which showed, inter alia, a dramatic increase in underwater noise pollution in the Arctic;
- .5 MEPC 76/INF.17 (Belgium), providing summaries of the key findings of two desk studies carried out in 2020 on options for reducing emissions as well as underwater radiated noise from marine traffic, which focused on the Belgian shipping fleet and the effects of slow steaming for such reduction in a realistic scenario of marine traffic in the North Sea, respectively;

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- .6 MEPC 76/INF.32 (India), putting in perspective the issue of acoustic habitat degradation in the Indian Ocean Region (IOR) with identification of hotspots in terms of the extent of degradation, proposing new means for site-specific assessment of the degradation, and drawing attention to the Underwater Domain Awareness (UDA) framework and the Underwater Radiated Noise (URN) management;
 - .7 MEPC 76/INF.39 (Netherlands), summarizing the results of the Joint Monitoring Programme of Ambient Noise in the North Sea (JOMOPANS), a programme developing a framework for a fully operational joint monitoring programme for ambient noise in the North Sea and producing maps of depth-averaged sound pressure levels for the North Sea;
 - .8 MEPC 75/14/1 (FOEI et al.), providing comments on document MEPC 75/14 and drawing attention to the worldwide impact of underwater noise on the marine environment, the urgency of the issue, the lack of activity to date and to expressions of support for mitigation measures from international forums and civil society;
 - .9 MEPC 75/14/2 (Austria et al.), providing comments on document MEPC 75/14, expressing general support for the proposed new output and presenting all the initiatives taken at the European level to limit underwater noise pollution from ships and its impact on the marine environment and species;
 - .10 MEPC 75/14/3 (World Maritime University), providing comments on document MEPC 75/14 and information on the International Symposium on Anthropogenic Underwater Noise, which took place in Hamburg, Germany, in September 2019 and was organized by the Jens-Peter and Betsy Schlüter Foundation for Shipping and Environmental Protection and the World Maritime University (WMU) with the support of IMO;
 - .11 MEPC 74/17/2 (Canada and France), highlighting various international efforts undertaken to address and further understand adverse underwater noise from commercial shipping, and pointing out that the need for further research on new technical solution and continued international collaboration is necessary to ensure that the balance between a healthy ocean and its uses is sustainably met;
 - .12 MEPC 74/17/3 (FOEI et al.), providing comments on document MEPC 74/17/2 and drawing attention to the worldwide impact of underwater noise on the marine environment, the urgency of the issue, and to expressions of support for mitigation measures from international forums and civil society, and encouraging Member States to bring forward a proposal for a new work output on underwater noise to MEPC 75 for consideration;
 - .13 MEPC 74/INF.14 (CMS), providing information on UNEP/CMS/Resolution 12.14 on Adverse Impacts of Anthropogenic Noise on Cetaceans and Other Migratory Species, adopted by the Conference of the Parties at its 12th Meeting in Manila, in October 2017, in relation to shipping traffic;

- .14 MEPC 74/INF.28 (Canada), highlighting a recent review of underwater radiated noise mitigation measures from ships, presented as a technical matrix focusing on new builds and retrofit technologies; and
- .15 MEPC 74/INF.36 (Canada), highlighting the recommendations and outcomes from a recent international technical workshop on underwater vessel noise, titled "Quieting Ships to Protect the Marine Environment",

together with the Chair's preliminary assessment of the proposal (MEPC 76/WP.2, annex 2).

12.3 Following consideration, the Committee:

- .1 agreed to include in the biennial agenda of the SDC Sub-Committee for 2022-2023 and the provisional agenda for SDC 8 an output on "Review of the 2014 Guidelines for the reduction of underwater noise from commercial shipping to address adverse impacts on marine life (MEPC.1/Circ.833) (2014 Guidelines) and identification of next steps", with a target completion year of 2023;
- .2 approved the terms of reference for the SDC Sub-Committee on this new output, as set out in annex 2 to document MEPC 75/14;
- .3 having highlighted that underwater vessel noise derived from various sources, which included, inter alia, hull noise, propeller noise, machinery noise and sonar, invited Member States and international organizations to include relevant experts in their delegations to the SDC Sub-Committee for the work of the new output;
- .4 invited Member States and international organizations to submit their concrete proposals to SDC 8; and
- .5 requested the Secretariat to discuss with potential donors, such as GEF, regarding the potential funding of a global underwater vessel noise project.

12.4 The delegation of India referred to the information contained in document MEPC 76/INF.32 and expressed the view that the scope of the new output should also include the monitoring of the impact of underwater noise from shipping to ascertain the efficacy of various solutions. In this regard, the Committee reiterated its invitation to Member States and international organizations to submit information and concrete proposals to the SDC Sub-Committee.

New outputs proposed by the III Sub-Committee

12.5 The Committee recalled that under agenda item 10 it had concurred with the decisions made and action taken by MSC 103, i.e. the inclusion of new outputs on "Development of an entrant training manual for PSC personnel" and "Development of guidance in relation to IMSAS to assist in the implementation of the III Code" in the biennial agenda of the III Sub-Committee and the provisional agenda for III 8.

Biennial agenda of the PPR Sub-Committee and provisional agenda for PPR 9

12.6 The Committee noted the biennial status report of the PPR Sub-Committee for the 2020-2021 biennium, as set out in annex 3 to document PPR 8/13, and approved the biennial agenda for the 2022 to 2023 biennium of the PPR Sub-Committee and the provisional agenda for PPR 9, as set out in annexes 15 and 16, respectively.

Status of outputs of the Committee for the 2020-2021 biennium

12.7 The status of outputs for the 2020-2021 biennium and the post-biennial agenda of MEPC, as prepared by the Secretariat taking into account the outcome of the meeting, are set out in annexes 17 and 18, respectively.

Scheduling of upcoming sessions and items to be included in the agenda of MEPC 77

12.8 Having considered document MEPC 76/WP.3 and taken into account the decisions made at this session, the Committee:

- .1 noted that MEPC 77 had been tentatively scheduled to take place from 8 to 12 November 2021, as indicated in document PROG 129/Rev.1, and that MEPC 78 was expected to take place in the first half of 2022;²
- .2 approved the items to be included in the agenda for MEPC 77, as set out in the annex to document MEPC 76/WP.3;
- .3 agreed that the Chair would issue a document prior to MEPC 77, setting out the proposals by the Chair with regard to arrangements for the session; and
- .4 encouraged Member States and international organizations to take into account the heavy workload of the Committee when considering submitting new documents to MEPC 77.

12.9 Several delegations remarked that the dates on which MEPC 77 was due to take place overlapped with the second week of the 26th United Nations Climate Change Conference (COP 26); expressed concern that this clash in dates would negatively impact the ability of delegations to MEPC to contribute to the deliberation of the Committee due to relevant experts having to choose between participating in MEPC 77 or COP 26; and urged the Secretariat to review the programme of meetings for 2021 with a view to resolving this clash. The delegation of the United Arab Emirates encouraged the IMO and IMSO Secretariats to explore the option of shifting the IMSO Advisory Committee to take place from 8 to 12 November 2021 and scheduling MEPC 77 to take place from 15 to 19 November 2021. In this context, the Committee was informed by the Secretariat that the next session of the Council (C 125) would decide on the modality for the thirty-second session of the Assembly and, depending on whether the Council decided on A 32 being a remote or physical session, there could be some flexibility in rescheduling MEPC 77 so as to avoid conflicting with the dates on which COP 26 was due to take place once C 125 had considered the matter. The delegation of Tuvalu also recommended that consideration be given to starting virtual meetings at an earlier time of day. In conclusion, the Committee, having agreed to the five-day duration for MEPC 77, requested the Secretariat to consider possible adjustments to the dates of MEPC 77 and to inform delegations of any such adjustments through the circular letter for MEPC 77, taking into account comments expressed in plenary.

² The Committee is invited to note that, following consideration by C 125, MEPC 77 was subsequently rescheduled to take place from 22 to 26 November 2021.

12.10 With regard to the preliminary programme of meetings for 2022, the Committee noted that it was not yet available. Meeting dates for 2022 were expected to be published shortly after C 125 in July 2021.

Items to be included in the agenda of MEPC 77

12.11 The final list of items to be included in the provisional agenda for the Committee's next session, as prepared by the Secretariat in consultation with the Chair, is set out in annex 19.

12.12 The Committee noted the statements by the observers from CSC and FOEI (on behalf of FEOI, WWF and Greenpeace International) in regard to, inter alia, the outcome of this session in relation to the reduction of GHG emissions from ships, the impact on the Arctic of Black Carbon emissions from international shipping, and the practice of giving the floor to non-governmental organizations in consultative status with IMO only after all Member States had made their comments. As requested, the text of the statements made by the observers from CSC and FOEI is set out in annex 20. In this context, the delegations of Tuvalu and Solomon Islands expressed their support for the above-mentioned statements in regard to Black Carbon emissions and, in the case of Solomon Islands, in regard to the Committee considering the verbal contributions by non-governmental organizations more promptly.

Dates and duration of MEPC 76

12.13 The Committee recalled that under agenda item 1 it had endorsed the Chair's proposal on the arrangements and duration for this remote session as set out in documents MEPC 76/1/1 (Chair). In this connection, having taken into account the concern raised by the Russian Federation (MEPC 76/1/1/Add.1, paragraphs 3 and 4, and annex 1), the Committee highlighted the following:

- .1 owing to concerns raised and in order to maintain the integrity of the report of the Committee, document MEPC 75/18/Corr.1 was issued to modify the dates and duration of MEPC 76 as described in the report of MEPC 75 (MEPC 75/18), i.e. from 10 to 17 June 2021 to 14 to 18 June 2021, since there was no decision at MEPC 75 to change the tentative dates of MEPC 76 that were announced during the virtual meeting of MEPC 75;
- .2 it was of paramount importance to strictly follow procedures and practices to conduct the Committee appropriately;
- .3 at the same time, having considered the number of documents submitted to MEPC 76, as well as many documents deferred from previous sessions, and taking into account the difficulty of conducting remote sessions and the urgent matters needed to be considered at MEPC 76, the Chair proposed a one-day extension to the five-day duration of MEPC 76, i.e. 10 to 17 June 2021;
- .4 the Committee concurred with the Chair's proposal (MEPC 76, from 10 to 17 June 2021), on the condition that the Chair's proposal was made as an exceptional case under the difficult COVID-19 pandemic circumstances, which should not create a precedent for this Committee or any other IMO organ or body;
- .5 the Committee also noted that the Chair's proposal was based on the confirmation of the Secretariat that the budget implication for the proposed extension relating to the interpretation and meeting platform was being covered under the current budgetary provisions and following careful management of the meeting costs related to the programme of meetings for 2021; and

- .6 C 125 would be invited to consider and endorse this course of action, together with relevant information provided in document MEPC 76/1/1 (paragraphs 2 to 9).

Commenting documents on deferred documents from previous sessions

12.14 With regard to whether documents commenting on those documents deferred from previous sessions could be submitted by 21 April 2021 (seven-week deadline for MEPC 76), the Committee considered the comments by Japan set out in annex 2 to document MEPC 76/1/1/Add.1. Having taken into account the practice of MSC 103 (MSC 103/1, Notes 1.3), the Committee agreed that documents (four pages or less) commenting on documents deferred from previous sessions of the Committee would be accepted by the seven-week deadline for MEPC 77 and future sessions.

12.15 In this regard, the delegation of Japan emphasized that any rules set out in the official documents, including the Committees' method of work, should be strictly complied with. In particular, in this context, the role of the Secretariat was very important to ensure fairness and transparency in the enforcement of such rules.

12.16 The delegations of the Bahamas, Brazil, China and the Republic of Korea also expressed their support for the principle of maintaining the clarity of the deadline for documents commenting on those deferred from previous sessions. The delegation of Brazil added that it was important for the documents produced by the Secretariat to be clear on the procedures to be followed without leaving room for interpretation.

12.17 The delegation of the Bahamas expressed its appreciation to the Secretary-General and the entire Secretariat for the support that they provided to the IMO membership and, recognizing the pressures and limitations being faced by the Secretariat in preparing for committee and sub-committee sessions during the COVID-19 pandemic, encouraged Member States to be as helpful as possible.

12.18 In the context of transparency, the delegation of the Republic of Korea noted that document MEPC 76/5/5 had been republished on IMODOCs on 12 May 2021 with a footnote on the first page indicating the changes that had been introduced relative to the previous version of the document. In this regard, the delegation of the Republic of Korea was of the view that in cases where modifications had to be made to documents that had already been published on IMODOCs, having the modifications issued in the form of corrigenda, rather than replacing the document in question with a revised version, would ensure that the changes were brought to the attention of all Member States and international organizations and would avoid potential misunderstandings or misinterpretations of the proposals or comments contained in those documents.

Correspondence groups

12.19 The Committee recalled that it had decided under agenda item 7 to establish the Correspondence Group on Carbon Intensity Reduction and agreed to relax the deadline for submission of the interim report of the Correspondence Group to MEPC 77 to the nine-week document submission deadline (Friday, 17 September 2021).

Intersessional meetings

12.20 Having taken into account the progress and decisions made at this session in relation to reduction of GHG emissions from ships under agenda items 3 and 7, the Committee considered the scheduling of future sessions of the Intersessional Working Group on

Reduction of GHG Emissions from Ships (ISWG-GHG) in 2021. In this context, the Committee had for its consideration the relevant parts of the report of ISWG-GHG 8 (MEPC 76/WP.4, paragraphs 93 to 97 and 100.14), including the discussions of ISWG-GHG 8 on the possibility of ISWG-GHG 9 being divided into two parts, a first part lasting three days in the week 13 to 17 September 2021 and a second part lasting five days from 18 to 22 October 2021 (MEPC 76/WP.4, paragraph 93).

12.21 In the ensuing discussion, the Committee recognized the heavy workload of ISWG-GHG and concluded that the holding of two separate ISWG-GHG sessions, each with a distinct set of terms of reference and submission deadlines, was preferable to a single session divided into two temporally non-contiguous parts. Consequently, the Committee approved, subject to endorsement by the Council, the holding of the ninth meeting of the Intersessional Working Group on Reduction of GHG Emissions from Ships (ISWG-GHG 9) from 15 to 17 September 2021 and of the tenth meeting of the Intersessional Working Group on Reduction of GHG Emissions from Ships (ISWG-GHG 10) from 18 to 22 October 2021.

12.22 The Committee agreed to the following terms of reference for ISWG-GHG 9:

"The Intersessional Working Group on Reduction of GHG Emissions from Ships is instructed, taking into account documents submitted to ISWG-GHG 9, relevant documents submitted to ISWG-GHG 7, and documents MEPC 76/INF.69 and MEPC 76/INF.70 (Brazil) to:

- .1 further consider concrete proposals to encourage the uptake of alternative low-carbon and zero-carbon fuels, including the development of life cycle GHG/carbon intensity guidelines for all relevant types of fuels and incentive schemes, as appropriate;
- .2 further consider concrete proposals to reduce methane slip and emissions of volatile organic compounds (VOCs); and
- .3 submit a written report to MEPC 77."

12.23 For ISWG-GHG 10, the Committee agreed to the following terms of reference:

"The Intersessional Working Group on Reduction of GHG Emissions from Ships is instructed, taking into account documents submitted to ISWG-GHG 10 and relevant documents deferred from previous ISWG-GHG sessions, the interim report of the Correspondence Group on Carbon Intensity Reduction and any commenting documents submitted to MEPC 77, to:

- .1 consider any issue arising from the interim report of the Correspondence Group on Carbon Intensity Reduction;
- .2 further consider the scope of and timeline for development of a mandatory carbon intensity code;
- .3 consider concrete proposals on how to keep the impacts of the short-term measure under review and how to undertake a lessons-learned exercise of the comprehensive impact assessment of the short-term measure;*

- .4 consider midterm GHG reduction measures in the context of Phase I of the work plan for the development of mid- and long-term measures, also taking into account documents MEPC 76/7/2 (Norway), MEPC 76/7/9 (Australia et al.), MEPC 76/7/11 (Belgium et al.), MEPC 76/7/12 (Marshall Islands and Solomon Islands), MEPC 76/7/15 (Denmark et al.), MEPC 76/7/39 (ICS et al.), MEPC 76/7/40 (Belgium), MEPC 76/7/42 (Netherlands and OECD), MEPC 76/7/60 (Pacific Environment) and MEPC 76/INF.22 (Belgium et al.); and
 - .5 submit a written report to MEPC 77.
- * Reference is made to operative paragraph 7 of resolution MEPC[...] (76) on the adoption of amendments to MARPOL Annex VI."

12.24 The Committee also approved the holding of an intersessional meeting of the ESPH Technical Group in 2022, subject to the endorsement of the Council.

13 ANY OTHER BUSINESS

MATTERS CONSIDERED BY CORRESPONDENCE PRIOR TO THE VIRTUAL MEETING

13.1 In accordance with the arrangements of the remote session, as outlined in document MEPC 76/1/1 (paragraphs 14 to 17) and its annex 2 (section 9 on agenda item 13), the Committee considered by correspondence, prior to the virtual meeting, the following documents:

- .1 MEPC 76/13 (World Coatings Council), providing a set of recommendations to include specific risk assessment criteria to support the decision-making process for adding an anti-fouling system to Annex 1 to the AFS Convention;
- .2 MEPC 76/13/2 (BIMCO and ICS), providing information on an industry standard on in-water cleaning with capture and suggesting that it be included in the review of the Biofouling Guidelines;
- .3 MEPC 76/INF.29 (Secretariat), providing a status report on FSO SAFER and the work carried out by the Secretariat to date;
- .4 MEPC 76/INF.63 (REMPEC), providing information on the adoption and implementation of a road map for the possible designation of the Mediterranean Sea as an Emission Control Area for Sulphur Oxides pursuant to MARPOL Annex VI; and
- .5 MEPC 76/INF.65 (FOEI), providing information on a report describing IMO food waste regulation and possible reforms and amendments.

13.2 During the virtual meeting, the Committee reconfirmed the Chair's proposals in annex 2 to document MEPC 76/1/1, as set out in the following paragraphs 13.3 to 13.7.

Risk assessment of anti-fouling systems

13.3 The Committee noted the information and comments in document MEPC 76/13 (World Coatings Council) on specific risk assessment criteria which could be used to decide on the merits of placing an anti-fouling system in Annex 1 to the AFS Convention, and agreed that, should interested Member States wish to pursue the matter further, a proposal for a new output would need to be submitted to a future session of the Committee.

Industry standard on in-water cleaning with capture

13.4 The Committee instructed the PPR Sub-Committee to consider document MEPC 76/13/2 (BIMCO and ICS), under agenda item 7 (Review of the 2011 Guidelines for the control and management of ships' biofouling to minimize the transfer of invasive aquatic species (resolution MEPC.207(62))), and to advise the Committee accordingly.

Status report on FSO SAFER

13.5 The Committee noted the status report on FSO SAFER and the work carried out by the Secretariat to date, provided in document MEPC 76/INF.29 (Secretariat).

Possible designation of the Mediterranean Sea as an ECA for Sulphur Oxides

13.6 The Committee noted the information on the adoption and implementation of a road map for the possible designation of the Mediterranean Sea, as a whole, as an Emission Control Area for Sulphur Oxides pursuant to MARPOL Annex VI, within the framework of the Barcelona Convention, provided in document MEPC 76/INF.63 (REMPEC).

Food waste regulation

13.7 The Committee noted the information in document MEPC 76/INF.65 (FOEI) on a report describing IMO food waste regulation and possible reforms and amendments.

MATTERS DEFERRED TO MEPC 77

13.8 As proposed in document MEPC 76/1/1 (annex 3), the Committee agreed to defer the consideration of document MEPC 76/13/1 (World Coatings Council) to MEPC 77.

14 CONSIDERATION OF THE REPORT OF THE COMMITTEE

14.1 The draft report of the Committee (MEPC 76/WP.1) was prepared by the Secretariat, in consultation with the Chair, and considered by the Committee during the virtual meeting held on 17 June 2021. Subsequently, the Secretariat, in consultation with the Chair, prepared and published on IMODOCS the final draft report (MEPC 76/WP.1/Rev.1) incorporating the changes to document MEPC 76/WP.1 that had been agreed during its consideration in the virtual meeting. Thereafter, delegations wishing to comment on the final draft report were given a deadline of 30 June, 23:59 (UTC+1), to do so by correspondence in accordance with paragraph 21 of *the Interim guidance to facilitate remote sessions of the Committees during the COVID-19 pandemic (MSC-LEG-MEPC-TCC-FAL.1/Circ.1)*.

14.2 After the resolution of comments received, as described in document MEPC 76/14, the report of the Committee was finalized by the Secretariat in consultation with the Chair. The session was closed at 23.59 (UTC+1) on 30 June 2021.

15 ACTION REQUESTED OF OTHER IMO ORGANS

15.1 The Council, at its 125th session, is invited to:

- .1 consider and endorse the Committee's course of action concerning the extension of the duration of MEPC 76, taking into account relevant information provided in document MEPC 76/1/1 (paragraphs 1.11, 1.12 and 12.13);

- .2 consider the Secretariat support for the Organization's work on GHG emissions reduction with a view to making the necessary additional budget allocation for the next biennium of 2022-2023 for recruiting two additional professional officers in the Air Pollution and Energy Efficiency Section of the Marine Environment Division (paragraphs 7.37 to 7.40);
- .3 note that the Committee, having agreed to the five-day duration for MEPC 77, requested the Secretariat to consider possible adjustments to the dates of MEPC 77 and to inform delegations of any such adjustments through the circular letter for MEPC 77 (paragraphs 12.8 and 12.9); and
- .4 endorse the holding of three intersessional meetings (paragraph 12.20 to 12.24).

15.2 The Council, at its thirty-fourth extraordinary session, is invited to:

- .1 consider the report of the seventy-sixth session of MEPC and, in accordance with Article 21(b) of the IMO Convention, transmit it, with any comments and recommendations, to the thirty-second session of the Assembly;
- .2 note that the Committee adopted amendments to MARPOL Annexes I, IV and VI and the AFS Convention, including the adoption of 2021 revised MARPOL Annex VI, introducing mandatory goal-based technical and operational measures to reduce carbon intensity of international shipping (section 3 and annexes 1 to 4);
- .3 note the action taken by the Committee on issues related to ballast water management, in particular information on type approval of ballast water management systems that make use of Active Substances and an update on the experience-building phase associated with the Ballast Water Management Convention (section 4);
- .4 note the action taken by the Committee on issues related to air pollution and energy efficiency of ships, in particular the approval of circulars MEPC.1/Circ.884/Rev.1 on *Guidance for best practice for Member State/coastal State* and MEPC.1/Circ.850/Rev.3 on *Guidelines for determining minimum propulsion power to maintain the manoeuvrability of ships in adverse conditions*; the adoption of resolution MEPC.332(76) on *Amendments 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 by resolution MEPC.322(74))* and its consideration of the report of the fuel oil consumption data for the period from 1 January 2019 until 31 December 2019 (sections 5 and 6 and annexes 5 and 6);
- .5 note the action taken by the Committee on issues related to the reduction of GHG emissions from ships, in particular the approval, in general, of the report on the comprehensive impact assessment of the short-term measure and the invitation for concrete proposals to ISWG-GHG 10 on how to keep the impacts of the short-term measure under review and how to undertake a lessons-learned exercise; the adoption of seven sets of guidelines supporting the implementation of the short-term measure adopted through 2021 revised MARPOL Annex VI; and the approval of the Work plan for development of mid- and long-term measures as a follow-up of the Initial IMO Strategy on

Reduction of GHG Emissions from Ships and the instruction to ISWG-GHG-10 to consider various relevant proposals (section 7 and annexes 7 to 14);

- .6 note the action taken by the Committee on the outcome of PPR 7 and PPR 8, in particular the approval of two MEPC circulars on addressing marine plastic litter from ships and the unified interpretations to the NO_x Technical Code 2008; and the endorsement of the evaluation of products and cleaning additives (section 9);
- .7 note the action taken by the Committee regarding technical cooperation activities for the protection of the marine environment, including the approval of the revised thematic priorities related to the marine environment and the endorsement of the reinstatement of a dedicated global programme on reducing atmospheric emissions from ships and in ports, and effective implementation of IMO's Initial GHG Strategy, for inclusion under the ITCP for the 2022-2023 biennium (section 11);
- .8 endorse the following new outputs (paragraphs 12.3 and 12.5):
 - .1 "Review of the 2014 Guidelines for the reduction of underwater noise from commercial shipping to address adverse impacts on marine life (MEPC.1/Circ.833) (2014 Guidelines) and identification of next steps", for inclusion in the biennial agenda of the SDC Sub-Committee for 2022-2023 and the provisional agenda for SDC 8; and
 - .2 "Development of an entrant training manual for PSC personnel" and "Development of guidance in relation to IMSAS to assist in the implementation of the III Code" for inclusion in the biennial agenda of the III Sub-Committee for 2022 -2023 and the provisional agenda for III 8;
- .9 note the status report of the outputs of MEPC for the 2020-2021 biennium and the post-biennial agenda of MEPC (paragraph 12.7 and annexes 17 and 18); and
- .10 note that the Committee approved the items to be included in the provisional agenda of MEPC 77 (paragraph 12.11 and annex 19).

15.3 The Maritime Safety Committee, at its 104th session, is invited to:

- .1 note that the Committee approved MEPC.1/Circ.884/Rev.1 on *Guidance for best practice for Member State/coastal State* and MEPC.1/Circ.850/Rev.3 on *Guidelines for determining minimum propulsion power to maintain the manoeuvrability of ships in adverse conditions* (paragraphs 5.9 and 5.20);
- .2 note that the PPR Sub-Committee has requested input from NCSR, SDC and HTW Sub-Committees in the context of developing draft guidelines on mitigation measures to reduce risks of use and carriage for use of heavy fuel oil as fuel by ships in Arctic waters (paragraph 9.9);
- .3 note that the Committee approved the new output on "Review of the 2014 Guidelines for the reduction of underwater noise from commercial shipping

to address adverse impacts on marine life (MEPC.1/Circ.833) (2014 Guidelines) and identification of next steps", for inclusion in the biennial agenda of the SDC Sub-Committee for 2022-2023 and the provisional agenda for SDC 8 (paragraphs 12.3); and

- .4 note that the Committee took a decision concurrent with that of MSC 103 with regard to the inclusion of new outputs on "Development of an entrant training manual for PSC personnel" and "Development of guidance in relation to IMSAS to assist in the implementation of the III Code" in the biennial agenda of the III Sub-Committee for 2022-2023 and the provisional agenda for III 8 (paragraph 12.5).

15.4 The Technical Cooperation Committee, at its seventy-first session, is invited to:

- .1 note the action taken by the Committee on issues related to the reduction of GHG emissions from ships, in particular the adoption of 2021 revised MARPOL Annex VI introducing mandatory goal-based technical and operational measures to reduce carbon intensity of international shipping and the approval, in general, of the report on the comprehensive impact assessment of the short-term GHG reduction measure (paragraphs 3.32 and 7.3 to 7.36);
- .2 note various requests for additional technical assistance, resource mobilization and data gathering to support States with the implementation of the short-term measure, and to consider ways to provide enhanced support in the first years of implementation of the short-term measure for reducing carbon intensity of international shipping (paragraphs 7.3 to 7.36);
- .3 note the action taken by the Committee regarding technical cooperation activities for the protection of the marine environment, including the approval of the revised thematic priorities related to the marine environment and the endorsement of the reinstatement of a dedicated global programme on Reducing atmospheric emissions from ships and in ports, and effective implementation of IMO's Initial GHG Strategy, for inclusion under the ITCP for the 2022-2023 biennium (section 11); and
- .4 note that the Committee, in approving a new output on "Review of the 2014 Guidelines for the reduction of underwater noise from commercial shipping to address adverse impacts on marine life (MEPC.1/Circ.833) (2014 Guidelines) and identification of next steps", requested the Secretariat to discuss with potential donors, such as GEF, regarding the potential funding of a global underwater vessel noise project (paragraph 12.3).

(The annexes to this report have been issued as documents MEPC 76/15/Add.1 and MEPC 76/15/Add.2)

MARINE ENVIRONMENT PROTECTION
COMMITTEE
76th session
Agenda item 15

MEPC 76/15/Add.1
24 August 2021
Original: ENGLISH

**REPORT OF THE MARINE ENVIRONMENT PROTECTION COMMITTEE
ON ITS SEVENTY-SIXTH SESSION**

Attached is annex 1 to the report of the Marine Environment Protection Committee on its seventy-sixth session (MEPC 76/15).

LIST OF ANNEXES

ANNEX 1 RESOLUTION MEPC.328(76) - AMENDMENTS TO MARPOL ANNEX VI
(2021 REVISED MARPOL ANNEX VI)

(See document MEPC 76/15/Add.2 for annexes 2 to 20)

ANNEX 1

RESOLUTION MEPC.328(76)

**AMENDMENTS TO THE ANNEX OF THE PROTOCOL OF 1997 TO AMEND THE
INTERNATIONAL CONVENTION FOR THE PREVENTION OF POLLUTION FROM
SHIPS, 1973, AS MODIFIED BY THE PROTOCOL OF 1978 RELATING THERETO**

2021 Revised MARPOL Annex VI

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 international conventions for the prevention and control of marine pollution from ships,

RECALLING ALSO article 16 of the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocols of 1978 and 1997 relating thereto (MARPOL), which specifies the amendment procedure and confers upon the appropriate body of the Organization the function of considering amendments thereto for adoption by the Parties,

RECALLING FURTHER 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*,

HAVING CONSIDERED, at its seventy-sixth session, proposed amendments to MARPOL Annex VI concerning mandatory goal-based technical and operational measures to reduce carbon intensity of international shipping and exemption of unmanned non-self-propelled (UNSP) barges from certain survey and certification requirements, which were circulated in accordance with article 16(2)(a) of MARPOL,

HAVING ALSO CONSIDERED, at its seventy-sixth session, the comprehensive assessment of the impacts of the proposed amendments to MARPOL Annex VI on States, including on developing countries, especially on least developed countries (LDCs) and small island developing States (SIDS),*

1 ADOPTS, in accordance with article 16(2)(d) of MARPOL, the amendments to MARPOL Annex VI, the text of which is set out in the annex to the present resolution;

2 DETERMINES, in accordance with article 16(2)(f)(iii) of MARPOL, that the amendments to MARPOL Annex VI shall be deemed to have been accepted on 1 May 2022 unless prior to that date not less than one third of the Parties or Parties the combined merchant fleets of which constitute not less than 50% of the gross tonnage of the world's merchant fleet have communicated to the Organization their objection to the amendments;

3 INVITES the Parties to note that, in accordance with article 16(2)(g)(ii) of MARPOL, the amendments to MARPOL Annex VI shall enter into force on 1 November 2022 upon its acceptance in accordance with paragraph 2 above;

4 INVITES ALSO the Parties to consider and initiate as soon as possible the development of a Carbon Intensity Code;

* As set out in documents MEPC 76/7/13, MEPC 76/INF.68, and MEPC 76/INF.68/Add.1, Add.2 and Add.3.

5 INVITES the Organization, mindful of the review clauses provided for in regulations 25.3 and 28.11 of the amendments to MARPOL Annex VI, to initiate the respective reviews as early as possible;

6 INVITES ALSO the Organization to keep under review the impacts on States of the aforesaid amendments to MARPOL Annex VI, paying particular attention to the needs of developing countries, especially LDCs and SIDS, so that any necessary adjustments can be made;

7 AGREES to undertake a lessons-learned exercise from the comprehensive impact assessment of the amendments to MARPOL Annex VI, with a view to improving the procedure for conducting future impact assessments taking into account the *Procedure for assessing impacts on States of candidate measures* (MEPC.1/Circ.885) and the terms of reference for the impact assessment of the short-term measure;[†]

8 ENCOURAGES the Parties to consider early application of the aforesaid amendments;

9 REQUESTS the Secretary-General, for the purposes of article 16(2)(e) of MARPOL, to transmit certified copies of the present resolution and the text of the amendments to MARPOL Annex VI contained in the annex to all Parties to MARPOL;

10 REQUESTS ALSO the Secretary-General to transmit copies of the present resolution and its annex to Members of the Organization which are not Parties to MARPOL.

[†] As set out in the *Terms of reference and arrangements for the conduct of a comprehensive impact assessment of the short-term measure before MEPC 76* (MEPC 75/18, annex 6).

ANNEX

MARPOL ANNEX VI

REGULATIONS FOR THE PREVENTION OF AIR POLLUTION FROM SHIPS

Chapter 1 – General

Regulation 1

Application

The provisions of this Annex shall apply to all ships, except where expressly provided otherwise.

Regulation 2

Definitions

1 For the purpose of this Annex:

- .1 *Annex* means Annex VI to the International Convention for the Prevention of Pollution from Ships, 1973 (MARPOL), as modified by the Protocol of 1978 relating thereto, and as modified by the Protocol of 1997, as amended by the Organization, provided that such amendments are adopted and brought into force in accordance with the provisions of article 16 of the present Convention.
- .2 *A similar stage of construction* means the stage at which:
 - .1 construction identifiable with a specific ship begins; and
 - .2 assembly of that ship has commenced comprising at least 50 tonnes or one per cent of the estimated mass of all structural material, whichever is less.
- .3 *Anniversary date* means the day and the month of each year that will correspond to the date of expiry of the International Air Pollution Prevention Certificate.
- .4 *Audit* means a systematic, independent and documented process for obtaining audit evidence and evaluating it objectively to determine the extent to which audit criteria are fulfilled.
- .5 *Audit Scheme* means the IMO Member State Audit Scheme established by the Organization and taking into account the guidelines developed by the Organization.¹
- .6 *Audit Standard* means the Code for Implementation.
- .7 *Auxiliary control device* means a system, function or control strategy installed on a marine diesel engine that is used to protect the engine and/or its ancillary equipment against operating conditions that could result in damage or failure, or that is used to facilitate the starting of the engine. An auxiliary control device

¹ Refer to the Framework and Procedures for the IMO Member State Audit Scheme (resolution A.1067(28)).

may also be a strategy or measure that has been satisfactorily demonstrated not to be a defeat device.

- .8 *Code for Implementation* means the IMO Instruments Implementation Code (III Code) adopted by the Organization by resolution A.1070(28).
- .9 *Continuous feeding* is defined as the process whereby waste is fed into a combustion chamber without human assistance while the incinerator is in normal operating conditions with the combustion chamber operative temperature between 850°C and 1,200°C.
- .10 *Defeat device* means a device that measures, senses or responds to operating variables (e.g. engine speed, temperature, intake pressure or any other parameter) for the purpose of activating, modulating, delaying or deactivating the operation of any component or the function of the emission control system such that the effectiveness of the emission control system is reduced under conditions encountered during normal operation, unless the use of such a device is substantially included in the applied emission certification test procedures.
- .11 *Electronic Record Book* means a device or system, approved by the Administration, used to electronically record the required entries for discharges, transfers and other operations as required under this Annex in lieu of a hard copy record book.²
- .12 *Emission* means any release of substances, subject to control by this Annex, from ships into the atmosphere or sea.
- .13 *Emission control area* means an area where the adoption of special mandatory measures for emissions from ships is required to prevent, reduce and control air pollution from NO_x or SO_x and particulate matter or all three types of emissions and their attendant adverse impacts on human health and the environment. Emission control areas shall include those listed in, or designated under, regulations 13 and 14 of this Annex.
- .14 *Fuel oil* means any fuel delivered to and intended for combustion purposes for propulsion or operation on board a ship, including gas, distillate and residual fuels.
- .15 *Gross tonnage* means the gross tonnage calculated in accordance with the tonnage measurement regulations contained in Annex I to the International Convention on Tonnage Measurements of Ships, 1969, or any successor Convention.
- .16 *In-use sample* means a sample of fuel oil in use on a ship.
- .17 *Installations* in relation to regulation 12 of this Annex means the installation of systems, equipment, including portable fire-extinguishing units, insulation, or other material on a ship, but excludes the repair or recharge of previously installed systems, equipment, insulation or other material, or the recharge of portable fire-extinguishing units.

² Refer to the *Guidelines for the use of electronic record books under MARPOL* (resolution MEPC.312(74)).

- .18 *Installed* means a marine diesel engine that is or is intended to be fitted on a ship, including a portable auxiliary marine diesel engine, only if its fuelling, cooling or exhaust system is an integral part of the ship. A fuelling system is considered integral to the ship only if it is permanently affixed to the ship. This definition includes a marine diesel engine that is used to supplement or augment the installed power capacity of the ship and is intended to be an integral part of the ship.
- .19 *Irrational emission control strategy* means any strategy or measure that, when the ship is operated under normal conditions of use, reduces the effectiveness of an emission control system to a level below that expected on the applicable emission test procedures.
- .20 *Low-flashpoint fuel* means gaseous or liquid fuel oil having a flashpoint lower than otherwise permitted under paragraph 2.1.1 of regulation 4 of chapter II-2 of the International Convention for the Safety of Life at Sea (SOLAS), 1974, as amended.
- .21 *Marine diesel engine* means any reciprocating internal combustion engine operating on liquid or dual fuel, to which regulation 13 of this Annex applies, including booster/compound systems if applied. In addition, a gas-fuelled engine installed on a ship constructed on or after 1 March 2016 or a gas-fuelled additional or non-identical replacement engine installed on or after that date is also considered as a marine diesel engine.
- .22 *MARPOL delivered sample* means the sample of fuel oil delivered in accordance with regulation 18.8.1 of this Annex.
- .23 *NO_x Technical Code* means the Technical Code on Control of Emission of Nitrogen Oxides from Marine Diesel Engines adopted by resolution 2 of the 1997 MARPOL Conference, as amended by the Organization, provided that such amendments are adopted and brought into force in accordance with the provisions of article 16 of the present Convention.
- .24 *Onboard sample* means a sample of fuel oil intended to be used or carried for use on board that ship.
- .25 *Ozone-depleting substances* means controlled substances defined in paragraph (4) of article 1 of the Montreal Protocol on Substances that Deplete the Ozone Layer, 1987, listed in Annexes A, B, C or E to the said Protocol in force at the time of application or interpretation of this Annex.

Ozone-depleting substances that may be found on board ship include, but are not limited to:

| | |
|------------|---|
| Halon 1211 | Bromochlorodifluoromethane |
| Halon 1301 | Bromotrifluoromethane |
| Halon 2402 | 1,2-Dibromo-1,1,2,2-tetrafluoroethane (also known as Halon 114B2) |
| CFC-11 | Trichlorofluoromethane |
| CFC-12 | Dichlorodifluoromethane |
| CFC-113 | 1,1,2-Trichloro-1,2,2-trifluoroethane |

| | |
|---------|--|
| CFC-114 | 1,2-Dichloro-1,1,2,2-tetrafluoroethane |
| CFC-115 | Chloropentafluoroethane |

- .26 *Shipboard incineration* means the incineration of wastes or other matter on board a ship, if such wastes or other matter were generated during the normal operation of that ship.
- .27 *Shipboard incinerator* means a shipboard facility designed for the primary purpose of incineration.
- .28 *Ships constructed* means ships the keels of which are laid or that are at a similar stage of construction.
- .29 *Sludge oil* means sludge from the fuel oil or lubricating oil separators, waste lubricating oil from main or auxiliary machinery, or waste oil from bilge water separators, oil filtering equipment or drip trays.
- .30 *Sulphur content of fuel oil* means the concentration of sulphur in a fuel oil, measured in % m/m as tested in accordance with a standard acceptable to the Organization.³
- .31 *Tanker* in relation to regulation 15 of this Annex means an oil tanker as defined in regulation 1 of Annex I of the present Convention or a chemical tanker as defined in regulation 1 of Annex II of the present Convention.
- .32 *Unmanned non-self-propelled (UNSP) barge* means a barge that:
- .1 is not propelled by mechanical means;
 - .2 has no system, equipment and/or machinery fitted that may generate emissions regulated by this Annex; and
 - .3 has neither persons nor living animals on board.
- 2 For the purpose of chapter 4:
- .1 *A ship delivered on or after 1 September 2019* means a ship:
- .1 for which the building contract is placed on or after 1 September 2015; or
 - .2 in the absence of a building contract, the keel of which is laid, or which is at a similar stage of construction, on or after 1 March 2016; or
 - .3 the delivery of which is on or after 1 September 2019.
- .2 *Attained annual operational CII* is the operational carbon intensity indicator value achieved by an individual ship in accordance with regulations 26 and 28 of this Annex.

³ Refer to ISO 8754:2003 Petroleum products – Determination of sulphur content – Energy-dispersive X-ray fluorescence spectrometry.

- .3 *Attained EEDI* is the EEDI value achieved by an individual ship in accordance with regulation 22 of this Annex.
- .4 *Attained EEXI* is the EEXI value achieved by an individual ship in accordance with regulation 23 of this Annex.
- .5 *Bulk carrier* means a ship which is intended primarily to carry dry cargo in bulk, including such types as ore carriers as defined in regulation 1 of chapter XII of the International Convention for the Safety of Life at Sea (SOLAS), 1974, (as amended) but excluding combination carriers.
- .6 *Calendar year* means the period from 1 January until 31 December inclusive.
- .7 *Combination carrier* means a ship designed to load 100% deadweight with both liquid and dry cargo in bulk.
- .8 *Company* means the owner of the ship or any other organization or person such as the manager, or the bareboat charterer, who has assumed the responsibility for operation of the ship from the owner of the ship and who on assuming such responsibility has agreed to take over all the duties and responsibilities imposed by the International Management Code for the Safe Operation of Ships and for Pollution Prevention, as amended.
- .9 *Containership* means a ship designed exclusively for the carriage of containers in holds and on deck.
- .10 *Conventional propulsion* in relation to chapter 4 means a method of propulsion where a main reciprocating internal combustion engine(s) is the prime mover and coupled to a propulsion shaft either directly or through a gear box.
- .11 *Cruise passenger ship* in relation to chapter 4 means a passenger ship not having a cargo deck, designed exclusively for commercial transportation of passengers in overnight accommodations on a sea voyage.
- .12 *Distance travelled* means distance travelled over ground.
- .13 *Existing ship* means a ship which is not a new ship.
- .14 *Gas carrier* in relation to chapter 4 means a cargo ship, other than an LNG carrier as defined in paragraph 2.16 of this regulation, constructed or adapted and used for the carriage in bulk of any liquefied gas.
- .15 *General cargo ship* means a ship with a multi-deck or single deck hull designed primarily for the carriage of general cargo. This definition excludes specialized dry cargo ships, which are not included in the calculation of reference lines for general cargo ships, namely livestock carrier, barge carrier, heavy load carrier, yacht carrier, nuclear fuel carrier.
- .16 *LNG carrier* in relation to chapter 4 of this Annex means a cargo ship constructed or adapted and used for the carriage in bulk of liquefied natural gas (LNG).
- .17 *Major conversion* means in relation to chapter 4 of this Annex a conversion of a ship:

- .1 which substantially alters the dimensions, carrying capacity or engine power of the ship; or
 - .2 which changes the type of the ship; or
 - .3 the intent of which in the opinion of the Administration is substantially to prolong the life of the ship; or
 - .4 which otherwise so alters the ship that, if it were a new ship, it would become subject to relevant provisions of the present Convention not applicable to it as an existing ship; or
 - .5 which substantially alters the energy efficiency of the ship and includes any modifications that could cause the ship to exceed the applicable required EEDI as set out in regulation 24 of this Annex or the applicable required EEXI as set out in regulation 25 of this Annex.
- .18 *New ship* means a ship:
- .1 for which the building contract is placed on or after 1 January 2013; or
 - .2 in the absence of a building contract, the keel of which is laid or which is at a similar stage of construction on or after 1 July 2013; or
 - .3 the delivery of which is on or after 1 July 2015.
- .19 *Non-conventional propulsion* in relation to chapter 4 of this Annex means a method of propulsion, other than conventional propulsion, including diesel-electric propulsion, turbine propulsion, and hybrid propulsion systems.
- .20 *Passenger ship* means a ship which carries more than 12 passengers.
- .21 *Polar Code* means the International Code for Ships Operating in Polar Waters, consisting of an introduction, parts I-A and II-A and parts I-B and II-B, adopted by resolutions MSC.385(94) and MEPC.264(68), as may be amended, provided that:
- .1 amendments to the environment-related provisions of the introduction and chapter 1 of part II-A of the Polar Code are adopted, brought into force and take effect in accordance with the provisions of article 16 of the present Convention concerning the amendment procedures applicable to an appendix to an annex; and
 - .2 amendments to part II-B of the Polar Code are adopted by the Marine Environment Protection Committee in accordance with its Rules of Procedure.
- .22 *Refrigerated cargo carrier* means a ship designed exclusively for the carriage of refrigerated cargoes in holds.

- .23 *Required annual operational CII* is the target value of attained annual operational CII in accordance with regulations 26 and 28 of this Annex for the specific ship type and size.
- .24 *Required EEDI* is the maximum value of attained EEDI that is allowed by regulation 24 of this Annex for the specific ship type and size.
- .25 *Required EEXI* is the maximum value of attained EEXI that is allowed by regulation 25 of this Annex for the specific ship type and size.
- .26 *Ro-ro cargo ship* means a ship designed for the carriage of roll-on-roll-off cargo transportation units.
- .27 *Ro-ro cargo ship (vehicle carrier)* means a multi-deck roll-on-roll-off cargo ship designed for the carriage of empty cars and trucks.
- .28 *Ro-ro passenger ship* means a passenger ship with roll-on-roll-off cargo spaces.
- .29 *Tanker* means an oil tanker as defined in regulation 1 of Annex I of the present Convention or a chemical tanker or an NLS tanker as defined in regulation 1 of Annex II of the present Convention.

Regulation 3

Exceptions and exemptions

General

- 1 Regulations of this Annex shall not apply to:
 - .1 any emission necessary for the purpose of securing the safety of a ship or saving life at sea; or
 - .2 any emission resulting from damage to a ship or its equipment:
 - .2.1 provided that all reasonable precautions have been taken after the occurrence of the damage or discovery of the emission for the purpose of preventing or minimizing the emission; and
 - .2.2 except if the owner or the master acted either with intent to cause damage, or recklessly and with knowledge that damage would probably result.

Trials for ship emission reduction and control technology research

2 The Administration of a Party may, in cooperation with other Administrations as appropriate, issue an exemption from specific provisions of this Annex for a ship to conduct trials for the development of ship emission reduction and control technologies and engine design programmes. Such an exemption shall only be provided if the applications of specific provisions of the Annex or the revised NO_x Technical Code 2008 could impede research into the development of such technologies or programmes. A permit issued under this regulation shall not exempt a ship from the reporting requirement under regulation 27 and shall not alter the type and scope of data required to be reported under regulation 27. A permit for such an exemption

shall only be provided to the minimum number of ships necessary and be subject to the following provisions:

- .1 for marine diesel engines with a per cylinder displacement up to 30 L, the duration of the sea trial shall not exceed 18 months. If additional time is required, a permitting Administration or Administrations may permit a renewal for one additional 18-month period; or
- .2 for marine diesel engines with a per cylinder displacement at or above 30 L, the duration of the ship trial shall not exceed five years and shall require a progress review by the permitting Administration or Administrations at each intermediate survey. A permit may be withdrawn based on this review if the testing has not adhered to the conditions of the permit or if it is determined that the technology or programme is not likely to produce effective results in the reduction and control of ship emissions. If the reviewing Administration or Administrations determine that additional time is required to conduct a test of a particular technology or programme, a permit may be renewed for an additional time period not to exceed five years.

Emissions from seabed mineral activities

3.1 Emissions directly arising from the exploration, exploitation and associated offshore processing of seabed mineral resources are, consistent with article 2(3)(b)(ii) of the present Convention, exempt from the provisions of this Annex. Such emissions include the following:

- .1 emissions resulting from the incineration of substances that are solely and directly the result of exploration, exploitation and associated offshore processing of seabed mineral resources, including but not limited to the flaring of hydrocarbons and the burning of cuttings, muds, and/or stimulation fluids during well completion and testing operations, and flaring arising from upset conditions;
- .2 the release of gases and volatile compounds entrained in drilling fluids and cuttings;
- .3 emissions associated solely and directly with the treatment, handling or storage of seabed minerals; and
- .4 emissions from marine diesel engines that are solely dedicated to the exploration, exploitation and associated offshore processing of seabed mineral resources.

3.2 The requirements of regulation 18 of this Annex shall not apply to the use of hydrocarbons that are produced and subsequently used on site as fuel, when approved by the Administration.

Unmanned non-self-propelled barges

4 The Administration may exempt an unmanned non-self-propelled (UNSP) barge⁴ from the requirements of regulations 5.1 and 6.1 of this Annex by means of an International Air Pollution Prevention Exemption Certificate for Unmanned Non-self-propelled (UNSP) Barges,

⁴ Refer to the *Guidelines for exemption of unmanned non-self-propelled (UNSP) barges from the survey and certification requirements under the MARPOL Convention* (MEPC.1/Circ.892).

for a period not exceeding five years provided that the barge has undergone a survey to confirm that conditions referred to in regulations 2.1.32.1 to 2.1.32.3 of this Annex are met.

Regulation 4 *Equivalents*

1 The Administration of a Party may allow any fitting, material, appliance or apparatus to be fitted in a ship or other procedures, alternative fuel oils, or compliance methods used as an alternative to those required by this Annex if such fitting, material, appliance or apparatus or other procedures, alternative fuel oils, or compliance methods are at least as effective in terms of emissions reductions as those required by this Annex, including any of the standards set forth in regulations 13 and 14.

2 The Administration of a Party that allows a fitting, material, appliance or apparatus or other procedures, alternative fuel oils, or compliance methods used as an alternative to those required by this Annex shall communicate to the Organization for circulation to the Parties particulars thereof, for their information and appropriate action, if any.

3 The Administration of a Party should take into account any relevant guidelines developed by the Organization⁵ pertaining to the equivalents provided for in this regulation.

4 The Administration of a Party that allows the use of an equivalent as set forth in paragraph 1 of this regulation shall endeavour not to impair or damage its environment, human health, property or resources or those of other States.

Chapter 2 – Survey, certification and means of control

Regulation 5 *Surveys*

1 Every ship of 400 gross tonnage and above and every fixed and floating drilling rig or other platform shall, to ensure compliance with the requirements of chapter 3 of this Annex, be subject to the surveys specified below:

- .1 An initial survey before the ship is put into service or before the certificate required under regulation 6 of this Annex is issued for the first time. This survey shall be such as to ensure that the equipment, systems, fittings, arrangements and material fully comply with the applicable requirements of chapter 3 of this Annex;
- .2 A renewal survey at intervals specified by the Administration, but not exceeding five years, except where regulation 9.2, 9.5, 9.6 or 9.7 of this Annex is applicable. The renewal survey shall be such as to ensure that the equipment, systems, fittings, arrangements and material fully comply with applicable requirements of chapter 3 of this Annex;
- .3 An intermediate survey within three months before or after the second anniversary date or within three months before or after the third anniversary date of the certificate which shall take the place of one of the annual surveys specified in paragraph 1.4 of this regulation. The intermediate survey shall be such as to ensure that the equipment and arrangements fully comply with the applicable requirements of chapter 3 of this Annex and are in good working

⁵ Refer to 2015 Guidelines for exhaust gas cleaning systems (resolution MEPC.259(68)).

order. Such intermediate surveys shall be endorsed on the IAPP Certificate issued under regulation 6 or 7 of this Annex;

- .4 An annual survey within three months before or after each anniversary date of the certificate, including a general inspection of the equipment, systems, fittings, arrangements and material referred to in paragraph 1.1 of this regulation to ensure that they have been maintained in accordance with paragraph 5 of this regulation and that they remain satisfactory for the service for which the ship is intended. Such annual surveys shall be endorsed on the IAPP Certificate issued under regulation 6 or 7 of this Annex; and
- .5 An additional survey either general or partial, according to the circumstances, shall be made whenever any important repairs or renewals are made as prescribed in paragraph 5 of this regulation or after a repair resulting from investigations prescribed in paragraph 6 of this regulation. The survey shall be such as to ensure that the necessary repairs or renewals have been effectively made, that the material and workmanship of such repairs or renewals are in all respects satisfactory and that the ship complies in all respects with the requirements of chapter 3 of this Annex.

2 In the case of ships of less than 400 gross tonnage, the Administration may establish appropriate measures in order to ensure that the applicable provisions of chapter 3 of this Annex are complied with.

3 Surveys of ships as regards the enforcement of the provisions of this Annex shall be carried out by officers of the Administration.

- .1 The Administration may, however, entrust the surveys either to surveyors nominated for the purpose or to organizations recognized by it. Such organizations shall comply with the guidelines adopted by the Organization;⁶
- .2 The survey of marine diesel engines and equipment for compliance with regulation 13 of this Annex shall be conducted in accordance with the revised NO_x Technical Code 2008;
- .3 When a nominated surveyor or recognized organization determines that the condition of the equipment does not correspond substantially with the particulars of the certificate, it shall ensure that corrective action is taken and shall in due course notify the Administration. If such corrective action is not taken, the certificate shall be withdrawn by the Administration. If the ship is in a port of another Party, the appropriate authorities of the port State shall also be notified immediately. When an officer of the Administration, a nominated surveyor or recognized organization has notified the appropriate authorities of the port State, the Government of the port State concerned shall give such officer, surveyor or organization any necessary assistance to carry out their obligations under this regulation; and
- .4 In every case, the Administration concerned shall fully guarantee the completeness and efficiency of the survey and shall undertake to ensure the necessary arrangements to satisfy this obligation.

⁶ Refer to the Code for Recognized Organizations (RO Code), as adopted by the Organization by resolution MEPC.237(65), as may be amended by the Organization. Refer also to the Survey Guidelines under the Harmonized System of Survey and Certification (HSSC), 2019 (resolution A.1140(31)).

4 Ships to which chapter 4 of this Annex applies shall also be subject to the surveys specified below, taking into account the guidelines adopted by the Organization:⁷

- .1 An initial survey carried out before a new ship is put in service and before the International Energy Efficiency Certificate is issued. The survey shall verify that the ship's attained EEDI is in accordance with the requirements in chapter 4 of this Annex, and that the SEEMP required by regulation 26 of this Annex is on board;
- .2 A general or partial survey, according to the circumstances, carried out after a major conversion of a new ship to which this regulation applies. The survey shall ensure that the attained EEDI is recalculated as necessary and meets the requirement of regulation 24 of this Annex, with the reduction factor applicable to the ship type and size of the converted ship in the phase corresponding to the date of contract or keel laying or delivery determined for the original ship in accordance with regulation 2.2.18 of this Annex;
- .3 In cases where the major conversion of a new or existing ship is so extensive that the ship is regarded by the Administration as a newly constructed ship, the Administration shall determine the necessity of an initial survey on attained EEDI. Such a survey, if determined necessary, shall ensure that the attained EEDI is calculated and meets the requirement of regulation 24 of this Annex, with the reduction factor applicable corresponding to the ship type and size of the converted ship at the date of the contract of the conversion, or in the absence of a contract, the commencement date of the conversion. The survey shall also verify that the SEEMP required by regulation 26 of this Annex is on board and, for a ship to which regulation 27 applies, has been revised appropriately to reflect a major conversion in those cases where the major conversion affects data collection methodology and/or reporting processes;
- .4 For existing ships, the verification of the requirement to have a SEEMP on board according to regulation 26 of this Annex shall take place at the first intermediate or renewal survey identified in paragraph 1 of this regulation, whichever is the first, on or after 1 January 2013;
- .5 The Administration shall ensure that for each ship to which regulation 27 applies, the SEEMP complies with regulation 26.2 of this Annex. This shall be done prior to collecting data under regulation 27 of this Annex in order to ensure the methodology and processes are in place prior to the beginning of the ship's first reporting period. Confirmation of compliance shall be provided to and retained on board the ship;
- .6 The Administration shall ensure that, for each ship to which regulation 28 applies, the SEEMP complies with regulation 26.3.1 of this Annex. This shall be done prior to 1 January 2023. Confirmation of compliance shall be provided to, and retained on board, the ship;
- .7 The verification that the ship's attained EEXI is in accordance with the requirements in regulations 23 and 25 of this Annex shall take place at the first annual, intermediate or renewal survey identified in paragraph 1 of this

⁷ Refer to the *2014 Guidelines on survey and certification of the Energy Efficiency Design Index* (resolution MEPC.254(67)), as amended by resolutions MEPC.261(68) and MEPC.309(73)); consolidated text: MEPC.1/Circ.855/Rev.2, as may be further amended.

regulation or the initial survey identified in paragraphs 4.1 and 4.3 of this regulation, whichever is the first, on or after 1 January 2023; and

- .8 Notwithstanding paragraph 4.7 of this regulation, a general or partial survey, according to the circumstances, carried out after a major conversion of a ship to which regulation 23 of this Annex applies. The survey shall ensure that the attained EEXI is recalculated as necessary and meets the requirement of regulation 25 of this Annex.

5 The equipment shall be maintained to conform with the provisions of this Annex and no changes shall be made in the equipment, systems, fittings, arrangements or material covered by the survey, without the express approval of the Administration. The direct replacement of such equipment and fittings with equipment and fittings that conform with the provisions of this Annex is permitted.

6 Whenever an accident occurs to a ship or a defect is discovered that substantially affects the efficiency or completeness of its equipment covered by this Annex, the master or owner of the ship shall report at the earliest opportunity to the Administration, a nominated surveyor or recognized organization responsible for issuing the relevant certificate.

Regulation 6

Issue or endorsement of Certificates and Statements of Compliance related to fuel oil consumption reporting and operational carbon intensity rating

International Air Pollution Prevention Certificate

1 An International Air Pollution Prevention (IAPP) Certificate shall be issued, after an initial or renewal survey in accordance with the provisions of regulation 5 of this Annex, to:

- .1 any ship of 400 gross tonnage and above engaged in voyages to ports or offshore terminals under the jurisdiction of other Parties; and
- .2 platforms and drilling rigs engaged in voyages to waters under the sovereignty or jurisdiction of other Parties.

2 A ship constructed before the date this Annex enters into force for that particular ship's Administration, shall be issued with an IAPP Certificate in accordance with paragraph 1 of this regulation no later than the first scheduled dry-docking after the date of such entry into force, but in no case later than three years after this date.

3 Such certificate shall be issued or endorsed either by the Administration or by any person or organization duly authorized by it.⁸ In every case, the Administration assumes full responsibility for the certificate.

International Energy Efficiency Certificate

4 An International Energy Efficiency Certificate for the ship shall be issued after a survey in accordance with the provisions of regulation 5.4 of this Annex to any ship of 400 gross tonnage and above before that ship may engage in voyages to ports or offshore terminals under the jurisdiction of other Parties.

⁸ Refer to the Code for Recognized Organizations (RO Code), as adopted by the Organization by resolution MEPC.237(65), as may be amended by the Organization.

5 The certificate shall be issued or endorsed either by the Administration or any organization duly authorized by it.⁸ In every case, the Administration assumes full responsibility for the certificate.

Statement of Compliance related to fuel oil consumption reporting and operational carbon intensity rating

6 Upon receipt of reported data pursuant to regulation 27.3 of this Annex and attained annual operational CII pursuant to regulation 28.2 of this Annex, the Administration or any organization duly authorized by it shall:

- .1 determine whether the data has been reported in accordance with regulation 27 of this Annex;
- .2 verify that the attained annual operational CII reported is based on the data submitted in accordance with regulation 27 of this Annex;
- .3 based on the verified attained annual operational CII, determine the operational carbon intensity rating of the ship in accordance with regulation 28.6 of this Annex; and
- .4 issue a Statement of Compliance related to fuel oil consumption reporting and operational carbon intensity rating to the ship no later than five months from the beginning of the calendar year, upon determination and verification pursuant to regulations 6.6.1 to 6.6.3 of this Annex. In every case, the Administration assumes full responsibility for this Statement of Compliance.

7 Upon receipt of reported data pursuant to regulations 27.4, 27.5 or 27.6 of this Annex, the Administration or any organization duly authorized by it⁹ shall promptly determine whether the data has been reported in accordance with regulation 27 and, if so, issue a Statement of Compliance to the ship. In every case, the Administration assumes full responsibility for this Statement of Compliance.

8 Notwithstanding paragraph 6 of this regulation, a ship rated as D for three consecutive years or rated as E in accordance with regulation 28 of this Annex shall not be issued a Statement of Compliance unless a plan of corrective actions is duly developed and reflected in the SEEMP and verified by the Administration or any organization duly authorized by it in accordance with regulations 28.7 and 28.8 of this Annex.

Regulation 7

Issue of a Certificate by another Party

1 A Party may, at the request of the Administration, cause a ship to be surveyed and, if satisfied that the provisions of this Annex are complied with, shall issue or authorize the issue of an IAPP Certificate or an International Energy Efficiency Certificate to the ship, and where appropriate, endorse or authorize the endorsement of such certificates on the ship, in accordance with this Annex.

2 A copy of the certificate and a copy of the survey report shall be transmitted as soon as possible to the requesting Administration.

⁹ Refer to the Code for Recognized Organizations (RO Code), as adopted by the Organization by resolution MEPC.237(65), as may be amended by the Organization.

3 A certificate so issued shall contain a statement to the effect that it has been issued at the request of the Administration and it shall have the same force and receive the same recognition as a certificate issued under regulation 6 of this Annex.

4 No IAPP Certificate, International Energy Efficiency Certificate or UNSP Exemption Certificate shall be issued to a ship which is entitled to fly the flag of a State which is not a Party.

Regulation 8

Form of Certificates and Statements of Compliance related to fuel oil consumption reporting and operational carbon intensity rating

International Air Pollution Prevention Certificate

1 The IAPP Certificate shall be drawn up in a form corresponding to the model given in appendix I to this Annex and shall be at least in English, French or Spanish. If an official language of the issuing country is also used, this shall prevail in case of a dispute or discrepancy.

International Energy Efficiency Certificate

2 The International Energy Efficiency Certificate shall be drawn up in a form corresponding to the model given in appendix VIII to this Annex and shall be at least in English, French or Spanish. If an official language of the issuing Party is also used, this shall prevail in case of a dispute or discrepancy.

Statement of Compliance related to fuel oil consumption reporting and operational carbon intensity rating

3 The Statement of Compliance pursuant to regulations 6.6 and 6.7 of this Annex shall be drawn up in a form corresponding to the model given in appendix X to this Annex and shall be at least in English, French or Spanish. If an official language of the issuing Party is also used, this shall prevail in case of a dispute or discrepancy.

International Air Pollution Prevention Exemption Certificate for Unmanned Non-self-propelled Barges

4 In accordance with regulation 3.4 of this Annex, the International Air Pollution Prevention Exemption Certificate for Unmanned Non-self-propelled Barges shall be drawn up in the form corresponding to the model given in appendix XI to this Annex and shall be at least in English, French or Spanish. If an official language of the issuing country is also used, this shall prevail in the event of a dispute or discrepancy.

Regulation 9

Duration and validity of Certificates and Statements of Compliance related to fuel oil consumption reporting and operational carbon intensity rating

International Air Pollution Prevention Certificate

1 An IAPP Certificate shall be issued for a period specified by the Administration, which shall not exceed five years.

2 Notwithstanding the requirements of paragraph 1 of this regulation:

- .1 when the renewal survey is completed within three months before the expiry date of the existing certificate, the new certificate shall be valid from the date

of completion of the renewal survey to a date not exceeding five years from the date of expiry of the existing certificate;

- .2 when the renewal survey is completed after the expiry date of the existing certificate, the new certificate shall be valid from the date of completion of the renewal survey to a date not exceeding five years from the date of expiry of the existing certificate; and
- .3 when the renewal survey is completed more than three months before the expiry date of the existing certificate, the new certificate shall be valid from the date of completion of the renewal survey to a date not exceeding five years from the date of completion of the renewal survey.

3 If a certificate is issued for a period of less than five years, the Administration may extend the validity of the certificate beyond the expiry date to the maximum period specified in paragraph 1 of this regulation, provided that the surveys referred to in regulations 5.1.3 and 5.1.4 of this Annex applicable when a certificate is issued for a period of five years are carried out as appropriate.

4 If a renewal survey has been completed and a new certificate cannot be issued or placed on board the ship before the expiry date of the existing certificate, the person or organization authorized by the Administration may endorse the existing certificate and such a certificate shall be accepted as valid for a further period that shall not exceed five months from the expiry date.

5 If a ship, at the time when a certificate expires, is not in a port in which it is to be surveyed, the Administration may extend the period of validity of the certificate, but this extension shall be granted only for the purpose of allowing the ship to complete its voyage to the port in which it is to be surveyed, and then only in cases where it appears proper and reasonable to do so. No certificate shall be extended for a period longer than three months, and a ship to which an extension is granted shall not, on its arrival in the port in which it is to be surveyed, be entitled by virtue of such extension to leave that port without having a new certificate. When the renewal survey is completed, the new certificate shall be valid to a date not exceeding five years from the date of expiry of the existing certificate before the extension was granted.

6 A certificate issued to a ship engaged on short voyages that has not been extended under the foregoing provisions of this regulation may be extended by the Administration for a period of grace of up to one month from the date of expiry stated on it. When the renewal survey is completed, the new certificate shall be valid to a date not exceeding five years from the date of expiry of the existing certificate before the extension was granted.

7 In special circumstances, as determined by the Administration, a new certificate need not be dated from the date of expiry of the existing certificate as required by paragraph 2.1, 5 or 6 of this regulation. In these special circumstances, the new certificate shall be valid to a date not exceeding five years from the date of completion of the renewal survey.

8 If an annual or intermediate survey is completed before the period specified in regulation 5 of this Annex, then:

- .1 the anniversary date shown on the certificate shall be amended by endorsement to a date that shall not be more than three months later than the date on which the survey was completed;
- .2 the subsequent annual or intermediate survey required by regulation 5 of this Annex shall be completed at the intervals prescribed by that regulation using the new anniversary date; and

- .3 the expiry date may remain unchanged, provided one or more annual or intermediate surveys, as appropriate, are carried out so that the maximum intervals between the surveys prescribed by regulation 5 of this Annex are not exceeded.

9 A certificate issued under regulation 6 or 7 of this Annex shall cease to be valid in any of the following cases:

- .1 if the relevant surveys are not completed within the periods specified under regulation 5.1 of this Annex;
- .2 if the certificate is not endorsed in accordance with regulation 5.1.3 or 5.1.4 of this Annex; and
- .3 upon transfer of the ship to the flag of another State. A new certificate shall only be issued when the Government issuing the new certificate is fully satisfied that the ship is in compliance with the requirements of regulation 5.4 of this Annex. In the case of a transfer between Parties, if requested within three months after the transfer has taken place, the Government of the Party whose flag the ship was formerly entitled to fly shall, as soon as possible, transmit to the Administration copies of the certificate carried by the ship before the transfer and, if available, copies of the relevant survey reports.

International Energy Efficiency Certificate

10 The International Energy Efficiency Certificate shall be valid throughout the life of the ship subject to the provisions of paragraph 11 below.

11 An International Energy Efficiency Certificate issued under this Annex shall cease to be valid in any of the following cases:

- .1 if the ship is withdrawn from service or if a new certificate is issued following major conversion of the ship; or
- .2 upon transfer of the ship to the flag of another State. A new certificate shall only be issued when the Government issuing the new certificate is fully satisfied that the ship is in compliance with the requirements of chapter 4 of this Annex. In the case of a transfer between Parties, if requested within three months after the transfer has taken place, the Government of the Party whose flag the ship was formerly entitled to fly shall, as soon as possible, transmit to the Administration copies of the certificate carried by the ship before the transfer and, if available, copies of the relevant survey reports; or
- .3 if the ship's equipment, systems, fittings, arrangements, or material covered by the survey were changed without the express approval of the Administration, as provided for in regulation 5.5 of this Annex, unless regulation 3 of this Annex applies.

Statement of Compliance related to fuel oil consumption reporting and operational carbon intensity rating

12 The Statement of Compliance issued pursuant to regulation 6.6 of this Annex shall be valid for the calendar year in which it is issued and for the first five months of the following

calendar year. The Statement of Compliance issued pursuant to regulation 6.7 of this Annex shall be valid for the calendar year in which it is issued, for the following calendar year, and for the first five months of the subsequent calendar year. All Statements of Compliance shall be kept on board for at least five years.

Regulation 10

Port State control on operational requirements

1 A ship, when in a port or an offshore terminal under the jurisdiction of another Party, is subject to inspection by officers duly authorized by such Party concerning operational requirements under this Annex,¹⁰ where there are clear grounds for believing that the master or crew are not familiar with essential shipboard procedures relating to the prevention of air pollution from ships.

2 In the circumstances given in paragraph 1 of this regulation, the Party shall take steps to ensure that the ship shall not sail until the situation has been brought to order in accordance with the requirements of this Annex.

3 Procedures relating to the port State control prescribed in article 5 of the present Convention shall apply to this regulation.

4 Nothing in this regulation shall be construed to limit the rights and obligations of a Party carrying out control over operational requirements specifically provided for in the present Convention.

5 In relation to chapter 4 of this Annex, any port State inspection may verify, when appropriate, that there is a valid Statement of Compliance related to fuel oil consumption reporting and operational carbon intensity rating, an International Energy Efficiency Certificate and a Ship Energy Efficiency Management Plan on board, in accordance with article 5 of the present Convention.

6 Notwithstanding the requirements in paragraph 5 of this regulation, any port State inspection may inspect whether the Ship Energy Efficiency Management Plan is duly implemented by the ship in accordance with regulation 28 of this Annex.

Regulation 11

Detection of violations and enforcement

1 Parties shall cooperate in the detection of violations and the enforcement of the provisions of this Annex, using all appropriate and practicable measures of detection and environmental monitoring, and adequate procedures for reporting and accumulation of evidence.

2 A ship to which this Annex applies may, in any port or offshore terminal of a Party, be subject to inspection by officers appointed or authorized by that Party for the purpose of verifying whether the ship has emitted any of the substances covered by this Annex in violation of the provision of this Annex. If an inspection indicates a violation of this Annex, a report shall be forwarded to the Administration for any appropriate action.

3 Any Party shall furnish to the Administration evidence, if any, that the ship has emitted any of the substances covered by this Annex in violation of the provisions of this Annex. If it is

¹⁰ Refer to the *Procedures for port State control, 2019* (resolution A.1138(31)). Refer also to the *2019 Guidelines for port State control under MARPOL Annex VI Chapter 3* (resolution MEPC.321(74)).

practicable to do so, the competent authority of the former Party shall notify the master of the ship of the alleged violation.

4 Upon receiving such evidence, the Administration shall investigate the matter and may request the other Party to furnish further or better evidence of the alleged contravention. If the Administration is satisfied that sufficient evidence is available to enable proceedings to be brought in respect of the alleged violation, it shall cause such proceedings to be taken in accordance with its law as soon as possible. The Administration shall promptly inform the Party that has reported the alleged violation, as well as the Organization, of the action taken.

5 A Party may also inspect a ship to which this Annex applies when it enters the ports or offshore terminals under its jurisdiction, if a request for an investigation is received from any Party together with sufficient evidence that the ship has emitted any of the substances covered by the Annex in any place in violation of this Annex. The report of such investigation shall be sent to the Party requesting it and to the Administration so that the appropriate action may be taken under the present Convention.

6 The international law concerning the prevention, reduction and control of pollution of the marine environment from ships, including that law relating to enforcement and safeguards, in force at the time of application or interpretation of this Annex, applies, *mutatis mutandis*, to the rules and standards set forth in this Annex.

Chapter 3 – Requirements for control of emissions from ships

Regulation 12

Ozone-depleting substances

1 This regulation does not apply to permanently sealed equipment where there are no refrigerant charging connections or potentially removable components containing ozone-depleting substances.

2 Subject to the provisions of regulation 3.1, any deliberate emissions of ozone-depleting substances shall be prohibited. Deliberate emissions include emissions occurring in the course of maintaining, servicing, repairing or disposing of systems or equipment, except that deliberate emissions do not include minimal releases associated with the recapture or recycling of an ozone-depleting substance. Emissions arising from leaks of an ozone-depleting substance, whether or not the leaks are deliberate, may be regulated by Parties.

3.1 Installations that contain ozone-depleting substances, other than hydrochlorofluorocarbons, shall be prohibited:

- .1 on ships constructed on or after 19 May 2005; or
- .2 in the case of ships constructed before 19 May 2005 which have a contractual delivery date of the equipment to the ship on or after 19 May 2005 or, in the absence of a contractual delivery date, the actual delivery of the equipment to the ship on or after 19 May 2005.

3.2 Installations that contain hydrochlorofluorocarbons shall be prohibited:

- .1 on ships constructed on or after 1 January 2020; or
- .2 in the case of ships constructed before 1 January 2020 which have a contractual delivery date of the equipment to the ship on or

after 1 January 2020 or, in the absence of a contractual delivery date, the actual delivery of the equipment to the ship on or after 1 January 2020.

4 The substances referred to in this regulation, and equipment containing such substances, shall be delivered to appropriate reception facilities when removed from ships.

5 Each ship subject to regulation 6.1 shall maintain a list of equipment containing ozone-depleting substances.¹¹

6 Each ship subject to regulation 6.1 that has rechargeable systems that contain ozone-depleting substances shall maintain an ozone-depleting substances record book. This record book may form part of an existing logbook or electronic record book¹² as approved by the Administration. An electronic recording system referred to in regulation 12.6, as adopted by resolution MEPC.176(58), shall be considered an electronic record book, provided the electronic recording system is approved by the Administration on or before the first IAPP Certificate renewal survey carried out on or after 1 October 2020, but not later than 1 October 2025, taking into account the guidelines developed by the Organization.¹²

7 Entries in the ozone-depleting substances record book shall be recorded in terms of mass (kg) of substance and shall be completed without delay on each occasion, in respect of the following:

- .1 recharge, full or partial, of equipment containing ozone-depleting substances;
- .2 repair or maintenance of equipment containing ozone-depleting substances;
- .3 discharge of ozone-depleting substances to the atmosphere:
 - .3.1 deliberate; and
 - .3.2 non-deliberate;
- .4 discharge of ozone-depleting substances to land-based reception facilities; and
- .5 supply of ozone-depleting substances to the ship.

Regulation 13

Nitrogen oxides (NO_x)

Application

1.1 This regulation shall apply to:

- .1 each marine diesel engine with a power output of more than 130 kW installed on a ship; and
- .2 each marine diesel engine with a power output of more than 130 kW that undergoes a major conversion on or after 1 January 2000 except when demonstrated to the satisfaction of the Administration that such engine is an

¹¹ See appendix I, Supplement to International Air Pollution Prevention Certificate (IAPP Certificate), section 2.1.

¹² Refer to the *Guidelines for the use of electronic record books under MARPOL* (resolution MEPC.312(74)).

identical replacement to the engine that it is replacing and is otherwise not covered under paragraph 1.1.1 of this regulation.

1.2 This regulation does not apply to:

- .1 a marine diesel engine intended to be used solely for emergencies or solely to power any device or equipment intended to be used solely for emergencies on the ship on which it is installed, or a marine diesel engine installed in lifeboats intended to be used solely for emergencies; and
- .2 a marine diesel engine installed on a ship solely engaged in voyages within waters subject to the sovereignty or jurisdiction of the State the flag of which the ship is entitled to fly, provided that such engine is subject to an alternative NO_x control measure established by the Administration.

1.3 Notwithstanding the provisions of paragraph 1.1 of this regulation, the Administration may provide an exclusion from the application of this regulation for any marine diesel engine that is installed on a ship constructed, or for any marine diesel engine that undergoes a major conversion, before 19 May 2005, provided that the ship on which the engine is installed is solely engaged in voyages to ports or offshore terminals within the State the flag of which the ship is entitled to fly.

Major conversion

2.1 For the purpose of this regulation, *major conversion* means a modification on or after 1 January 2000 of a marine diesel engine that has not already been certified to the standards set forth in paragraph 3, 4, or 5.1.1 of this regulation where:

- .1 the engine is replaced by a marine diesel engine or an additional marine diesel engine is installed, or
- .2 any substantial modification, as defined in the revised NO_x Technical Code 2008, is made to the engine, or
- .3 the maximum continuous rating of the engine is increased by more than 10% compared to the maximum continuous rating of the original certification of the engine.

2.2 For a major conversion involving the replacement of a marine diesel engine with a non-identical marine diesel engine, or the installation of an additional marine diesel engine, the standards in this regulation at the time of the replacement or addition of the engine shall apply. In the case of replacement engines only, if it is not possible for such a replacement engine to meet the standards set forth in paragraph 5.1.1 of this regulation (Tier III, as applicable), then that replacement engine shall meet the standards set forth in paragraph 4 of this regulation (Tier II), taking into account the guidelines developed by the Organization.¹³

2.3 A marine diesel engine referred to in paragraph 2.1.2 or 2.1.3 of this regulation shall meet the following standards:

- .1 for ships constructed prior to 1 January 2000, the standards set forth in paragraph 3 of this regulation shall apply; and

¹³ Refer to the 2013 Guidelines as required by regulation 13.2.2 of MARPOL Annex VI in respect of non-identical replacement engines not required to meet the Tier III limit (resolution MEPC.230(65))

- .2 for ships constructed on or after 1 January 2000, the standards in force at the time the ship was constructed shall apply.

Tier I¹⁴

3 Subject to regulation 3 of this Annex, the operation of a marine diesel engine that is installed on a ship constructed on or after 1 January 2000 and prior to 1 January 2011 is prohibited, except when the emission of nitrogen oxides (calculated as the total weighted emission of NO₂) from the engine is within the following limits, where n = rated engine speed (crankshaft revolutions per minute):

- .1 17.0 g/kWh when n is less than 130 rpm;
.2 $45 \cdot n^{(-0.2)}$ g/kWh when n is 130 or more but less than 2,000 rpm;
.3 9.8 g/kWh when n is 2,000 rpm or more.

Tier II

4 Subject to regulation 3 of this Annex, the operation of a marine diesel engine that is installed on a ship constructed on or after 1 January 2011 is prohibited, except when the emission of nitrogen oxides (calculated as the total weighted emission of NO₂) from the engine is within the following limits, where n = rated engine speed (crankshaft revolutions per minute):

- .1 14.4 g/kWh when n is less than 130 rpm;
.2 $44 \cdot n^{(-0.2)}$ g/kWh when n is 130 or more but less than 2,000 rpm;
.3 7.7 g/kWh when n is 2,000 rpm or more.

Tier III

5.1 Subject to regulation 3 of this Annex, in an emission control area designated for Tier III NO_x control under paragraph 6 of this regulation (NO_x Tier III emission control area), the operation of a marine diesel engine that is installed on a ship is prohibited:

- .1 except when the emission of nitrogen oxides (calculated as the total weighted emission of NO₂) from the engine is within the following limits, where n = rated engine speed (crankshaft revolutions per minute):

- .1 3.4 g/kWh when n is less than 130 rpm;
.2 $9 \cdot n^{(-0.2)}$ g/kWh when n is 130 or more but less than 2,000 rpm;
.3 2.0 g/kWh when n is 2,000 rpm or more;

when

- .2 that ship is constructed on or after:

¹⁴ Refer to the *Guidelines for the application of the NO_x Technical Code relative to certification and amendments of Tier I engines* (MEPC.1/Circ.679).

- .1 1 January 2016 and is operating in the North American Emission Control Area or the United States Caribbean Sea Emission Control Area;
 - .2 1 January 2021 and is operating in the Baltic Sea Emission Control Area or the North Sea Emission Control Area;
 - .3 that ship is operating in a NO_x Tier III emission control area other than an emission control area described in paragraph 5.1.2 of this regulation, and is constructed on or after the date of adoption of such an emission control area, or a later date as may be specified in the amendment designating the NO_x Tier III emission control area, whichever is later.
- 5.2 The standards set forth in paragraph 5.1.1 of this regulation shall not apply to:
- .1 a marine diesel engine installed on a ship with a length (*L*), as defined in regulation 1.19 of Annex I to the present Convention, of less than 24 metres when it has been specifically designed, and is used solely, for recreational purposes; or
 - .2 a marine diesel engine installed on a ship with a combined nameplate diesel engine propulsion power of less than 750 kW if it is demonstrated, to the satisfaction of the Administration, that the ship cannot comply with the standards set forth in paragraph 5.1.1 of this regulation because of design or construction limitations of the ship; or
 - .3 a marine diesel engine installed on a ship constructed prior to 1 January 2021 of less than 500 gross tonnage, with a length (*L*), as defined in regulation 1.19 of Annex I to the present Convention, of 24 metres or over when it has been specifically designed, and is used solely, for recreational purposes.
- 5.3 The tier and on/off status of marine diesel engines installed on board a ship to which paragraph 5.1 of this regulation applies which are certified to both Tier II and Tier III or which are certified to Tier II only shall be recorded in such logbook or electronic record book¹⁵ as prescribed by the Administration at entry into and exit from a NO_x Tier III emission control area, or when the on/off status changes within such an area, together with the date, time and position of the ship.
- 5.4 Emissions of nitrogen oxides from a marine diesel engine subject to paragraph 5.1 of this regulation that occur immediately following building and sea trials of a newly constructed ship, or before and following converting, repairing, and/or maintaining the ship, or maintenance or repair of a Tier II engine or a dual fuel engine when the ship is required to not have gas fuel or gas cargo on board due to safety requirements, for which activities take place in a shipyard or other repair facility located in a NO_x Tier III emission control area are temporarily exempted provided the following conditions are met:
- .1 the engine meets the Tier II NO_x limits; and
 - .2 the ship sails directly to or from the shipyard or other repair facility, does not load or unload cargo during the duration of the exemption, and follows any

¹⁵ Refer to the *Guidelines for the use of electronic record books under MARPOL* (resolution MEPC.312(74))

additional specific routing requirements indicated by the port State in which the shipyard or other repair facility is located, if applicable.

5.5 The exemption described in paragraph 5.4 of this regulation applies only for the following period:

- .1 for a newly constructed ship, the period beginning at the time the ship is delivered from the shipyard, including sea trials, and ending at the time the ship directly exits the NO_x Tier III emission control area(s) or, with regard to a ship fitted with a dual fuel engine, the ship directly exits the NO_x Tier III emission control area(s) or proceeds directly to the nearest gas fuel bunkering facility appropriate to the ship located in the NO_x Tier III emission control area(s);
- .2 for a ship with a Tier II engine undergoing conversion, maintenance or repair, the period beginning at the time the ship enters the NO_x Tier III emission control area(s) and proceeds directly to the shipyard or other repair facility, and ending at the time the ship is released from the shipyard or other repair facility and directly exits the NO_x Tier III emission control area (s) after performing sea trials, if applicable; or
- .3 for a ship with a dual fuel engine undergoing conversion, maintenance or repair, when the ship is required to not have gas fuel or gas cargo on board due to safety requirements, the period beginning at the time the ship enters the NO_x Tier III emission control area(s) or when it is degassed in the NO_x Tier III emission control area(s) and proceeds directly to the shipyard or other repair facility, and ending at the time when the ship is released from the shipyard or other repair facility and directly exits the NO_x Tier III emission control area(s) or proceeds directly to the nearest gas fuel bunkering facility appropriate to the ship located in the NO_x Tier III emission control area(s).

Emission control area

6 For the purposes of this regulation, a NO_x Tier III emission control area shall be any sea area, including any port area, designated by the Organization in accordance with the criteria and procedures set forth in appendix III to this Annex. The NO_x Tier III emission control areas are:

- .1 the North American Emission Control Area, which means the area described by the coordinates provided in appendix VII to this Annex;
- .2 the United States Caribbean Sea Emission Control Area, which means the area described by the coordinates provided in appendix VII to this Annex;
- .3 the Baltic Sea area as defined in regulation 1.11.2 of Annex I of the present Convention; and
- .4 the North Sea area as defined in regulation 1.14.6 of Annex V of the present Convention.

Marine diesel engines installed on a ship constructed prior to 1 January 2000

7.1 Notwithstanding paragraph 1.1.1 of this regulation, a marine diesel engine with a power output of more than 5,000 kW and a per cylinder displacement at or above 90 L installed on a ship constructed on or after 1 January 1990 but prior to 1 January 2000 shall comply with the emission limits set forth in paragraph 7.4 of this regulation, provided that an approved method¹⁶ for that engine has been certified by an Administration of a Party and notification of such certification has been submitted to the Organization by the certifying Administration.¹⁷ Compliance with this paragraph shall be demonstrated through one of the following:

- .1 installation of the certified approved method, as confirmed by a survey using the verification procedure specified in the approved method file, including appropriate notation on the ship's IAPP Certificate of the presence of the approved method; or
- .2 certification of the engine confirming that it operates within the limits set forth in paragraph 3, 4, or 5.1.1 of this regulation and an appropriate notation of the engine certification on the ship's IAPP Certificate.

7.2 Paragraph 7.1 of this regulation shall apply no later than the first renewal survey that occurs 12 months or more after deposit of the notification in paragraph 7.1. If a shipowner of a ship on which an approved method is to be installed can demonstrate to the satisfaction of the Administration that the approved method was not commercially available despite best efforts to obtain it, then that approved method shall be installed on the ship no later than the next annual survey of that ship that falls after the approved method is commercially available.

7.3 With regard to a marine diesel engine with a power output of more than 5,000 kW and a per cylinder displacement at or above 90 L installed on a ship constructed on or after 1 January 1990, but prior to 1 January 2000, the IAPP Certificate shall, for a marine diesel engine to which paragraph 7.1 of this regulation applies, indicate one of the following:

- .1 an approved method has been applied pursuant to paragraph 7.1.1 of this regulation;
- .2 the engine has been certified pursuant to paragraph 7.1.2 of this regulation;
- .3 an approved method is not yet commercially available as described in paragraph 7.2 of this regulation; or
- .4 an approved method is not applicable.

7.4 Subject to regulation 3 of this Annex, the operation of a marine diesel engine described in paragraph 7.1 of this regulation is prohibited, except when the emission of nitrogen oxides (calculated as the total weighted emission of NO₂) from the engine is within the following limits, where n = rated engine speed (crankshaft revolutions per minute):

- .1 17.0 g/kWh when n is less than 130 rpm;
- .2 $45 \cdot n^{(-0.2)}$ g/kWh when n is 130 or more but less than 2,000 rpm; and

¹⁶ Refer to the *2014 Guidelines on the approved method process* (resolution MEPC.243(66)).

¹⁷ Refer to the *2014 Guidelines in respect of the information to be submitted by an Administration to the Organization covering the certification of an approved method as required under regulation 13.7.1 of MARPOL Annex VI* (resolution MEPC.242(66)).

- .3 9.8 g/kWh when n is 2,000 rpm or more.

7.5 Certification of an approved method shall be in accordance with chapter 7 of the revised NO_x Technical Code 2008 and shall include verification:

- .1 by the designer of the base marine diesel engine to which the approved method applies that the calculated effect of the approved method will not decrease engine rating by more than 1.0%, increase fuel consumption by more than 2.0% as measured according to the appropriate test cycle set forth in the revised NO_x Technical Code 2008, or adversely affect engine durability or reliability; and
- .2 that the cost of the approved method is not excessive, which is determined by a comparison of the amount of NO_x reduced by the approved method to achieve the standard set forth in paragraph 7.4 of this regulation and the cost of purchasing and installing such approved method.¹⁸

Certification

8 The revised NO_x Technical Code 2008 shall be applied in the certification, testing and measurement procedures for the standards set forth in this regulation.

9 The procedures for determining NO_x emissions set out in the revised NO_x Technical Code 2008 are intended to be representative of the normal operation of the engine. Defeat devices and irrational emission control strategies undermine this intention and shall not be allowed. This regulation shall not prevent the use of auxiliary control devices that are used to protect the engine and/or its ancillary equipment against operating conditions that could result in damage or failure or that are used to facilitate the starting of the engine.

Regulation 14

Sulphur oxides (SO_x) and particulate matter

General requirements

1 The sulphur content of fuel oil used or carried for use on board a ship shall not exceed 0.50% m/m.

2 The worldwide average sulphur content of residual fuel oil supplied for use on board ships shall be monitored taking into account the guidelines developed by the Organization.¹⁹

¹⁸ The cost of an approved method shall not exceed 375 Special Drawing Rights/metric tonne NO_x calculated in accordance with the cost-effectiveness (Ce) formula below:

$$Ce = \frac{\text{Cost of approved method} \cdot 10^6}{\text{Power (KW)} \cdot 0.768 \cdot 6,000 \text{ (hours/year)} \cdot 5 \text{ (years)} \cdot \Delta \text{NO}_x \text{ (g/kWh)}}$$

Refer to the *Definitions for the cost-effectiveness formula in regulation 13.7.5 of the revised MARPOL Annex VI* (MEPC.1/Circ.678).

¹⁹ Refer to the *2020 Guidelines for monitoring the worldwide average sulphur content of fuel oils supplied for use on board ships* (resolution MEPC.326(75)).

Requirements within emission control areas

3 For the purpose of this regulation, an emission control area shall be any sea area, including any port area, designated by the Organization in accordance with the criteria and procedures set forth in appendix III to this Annex. The emission control areas under this regulation are:

- .1 the Baltic Sea area as defined in regulation 1.11.2 of Annex I of the present Convention;
- .2 the North Sea area as defined in regulation 1.14.6 of Annex V of the present Convention;
- .3 the North American Emission Control Area, which means the area described by the coordinates provided in appendix VII to this Annex; and
- .4 the United States Caribbean Sea Emission Control Area, which means the area described by the coordinates provided in appendix VII to this Annex.

4 While a ship is operating within an emission control area, the sulphur content of fuel oil used on board that ship shall not exceed 0.10% m/m.

5 The sulphur content of fuel oil referred to in paragraph 1 and paragraph 4 of this regulation shall be documented by its supplier as required by regulation 18 of this Annex.

6 Those ships using separate fuel oils to comply with paragraph 4 of this regulation and entering or leaving an emission control area set forth in paragraph 3 of this regulation shall carry a written procedure showing how the fuel oil changeover is to be done, allowing sufficient time for the fuel oil service system to be fully flushed of all fuel oils exceeding the applicable sulphur content specified in paragraph 4 of this regulation prior to entry into an emission control area. The volume of low sulphur fuel oils in each tank as well as the date, time and position of the ship when any fuel oil changeover operation is completed prior to the entry into an emission control area or commenced after exit from such an area shall be recorded in such logbook or electronic record book²⁰ as prescribed by the Administration.

7 During the first 12 months immediately following entry into force of an amendment designating a specific emission control area under paragraph 3 of this regulation, ships operating in that emission control area are exempt from the requirements in paragraphs 4 and 6 of this regulation and from the requirements of paragraph 5 of this regulation insofar as they relate to paragraph 4 of this regulation.

In-use and onboard fuel oil sampling and testing

8 If the competent authority of a Party requires the in-use or onboard sample to be analysed, it shall be done in accordance with the verification procedure set forth in appendix VI to this Annex to determine whether the fuel oil being used or carried for use on board meets the requirements in paragraph 1 or paragraph 4 of this regulation. The in-use sample shall be

²⁰ Refer to the *Guidelines for the use of electronic record books under MARPOL* (resolution MEPC.312(74))

drawn taking into account the guidelines developed by the Organization.²¹ The onboard sample shall be drawn taking into account the guidelines developed by the Organization.²²

9 The sample shall be sealed by the representative of the competent authority with a unique means of identification installed in the presence of the ship's representative. The ship shall be given the option of retaining a duplicate sample.

In-use fuel oil sampling point

10 For each ship subject to regulations 5 and 6 of this Annex, sampling point(s) shall be fitted or designated for the purpose of taking representative samples of the fuel oil being used on board the ship taking into account the guidelines developed by the Organization.²³

11 For a ship constructed before 1 April 2022, the sampling point(s) referred to in paragraph 10 shall be fitted or designated not later than the first renewal survey as identified in regulation 5.1.2 of this Annex on or after 1 April 2023.

12 The requirements of paragraphs 10 and 11 above are not applicable to a fuel oil service system for a low-flashpoint fuel for combustion purposes for propulsion or operation on board the ship.

13 The competent authority of a Party shall, as appropriate, utilize the sampling point(s) which is(are) fitted or designated for the purpose of taking representative sample(s) of the fuel oil being used on board in order to verify that the fuel oil complies with this regulation. Taking fuel oil samples by the competent authority of the Party shall be performed as expeditiously as possible without causing the ship to be unduly delayed.

Regulation 15

Volatile organic compounds

1 If the emissions of volatile organic compounds (VOCs) from a tanker are to be regulated in a port or ports or a terminal or terminals under the jurisdiction of a Party, they shall be regulated in accordance with the provisions of this regulation.

2 A Party regulating tankers for VOC emissions shall submit a notification to the Organization.²⁴ This notification shall include information on the size of tankers to be controlled, the cargoes requiring vapour emission control systems and the effective date of such control. The notification shall be submitted at least six months before the effective date.

3 A Party that designates ports or terminals at which VOC emissions from tankers are to be regulated shall ensure that vapour emission control systems, approved by that Party taking into account the safety standards for such systems developed by the Organization,²⁵ are provided in any designated port and terminal and are operated safely and in a manner so as to avoid undue delay to a ship.

²¹ Refer to the *2019 Guidelines for on board sampling for the verification of the sulphur content of the fuel oil used on board ships* (MEPC.1/Circ.864/Rev.1).

²² Refer to the *2020 Guidelines for on board sampling of fuel oil intended to be used or carried for use on board a ship* (MEPC.1/Circ.889).

²³ Refer to the *2019 Guidelines for on board sampling for the verification of the sulphur content of the fuel oil used on board ships* (MEPC.1/Circ.864/Rev.1).

²⁴ Refer to the *Notification to the Organization on ports or terminals where volatile organic compounds (VOCs) emissions are to be regulated* (MEPC.1/Circ.509).

²⁵ Refer to the *Standards for vapour emission control systems* (MSC/Circ.585).

4 The Organization shall circulate a list of the ports and terminals designated by Parties to other Parties and Member States of the Organization for their information.

5 A tanker to which paragraph 1 of this regulation applies shall be provided with a vapour emission collection system approved by the Administration taking into account the safety standards for such systems developed by the Organization,²⁵ and shall use this system during the loading of relevant cargoes. A port or terminal that has installed vapour emission control systems in accordance with this regulation may accept tankers that are not fitted with vapour collection systems for a period of three years after the effective date identified in paragraph 2 of this regulation.

6 A tanker carrying crude oil shall have on board and implement a VOC management plan approved by the Administration.²⁶ Such a plan shall be prepared taking into account the guidelines developed by the Organization. The plan shall be specific to each ship and shall at least:

- .1 provide written procedures for minimizing VOC emissions during the loading, sea passage and discharge of cargo;
- .2 give consideration to the additional VOC generated by crude oil washing;
- .3 identify a person responsible for implementing the plan; and
- .4 for ships on international voyages, be written in the working language of the master and officers and, if the working language of the master and officers is not English, French or Spanish, include a translation into one of these languages.

7 This regulation shall also apply to gas carriers only if the types of loading and containment systems allow safe retention of non-methane VOCs on board or their safe return ashore.²⁷

Regulation 16

Shipboard incineration

1 Except as provided in paragraph 4 of this regulation, shipboard incineration shall be allowed only in a shipboard incinerator.

2 Shipboard incineration of the following substances shall be prohibited:

- .1 residues of cargoes subject to Annex I, II or III or related contaminated packing materials;
- .2 polychlorinated biphenyls (PCBs);
- .3 garbage, as defined by Annex V, containing more than traces of heavy metals;

²⁶ Refer to the *Guidelines for the development of a VOC management plan* (resolution MEPC.185(59)). Refer also to the *Technical information on systems and operation to assist development of VOC management plans* (MEPC.1/Circ.680), and the *Technical information on a vapour pressure control system in order to facilitate the development and the update of VOC management plans* (MEPC.1/Circ.719).

²⁷ Refer to the International Code for the Construction and Equipment of Ships Carrying Liquefied Gases in Bulk.

- .4 refined petroleum products containing halogen compounds;
- .5 sewage sludge and sludge oil neither of which is generated on board the ship;
and
- .6 exhaust gas cleaning system residues.

3 Shipboard incineration of polyvinyl chlorides (PVCs) shall be prohibited, except in shipboard incinerators for which IMO Type Approval Certificates²⁸ have been issued.

4 Shipboard incineration of sewage sludge and sludge oil generated during normal operation of a ship may also take place in the main or auxiliary power plant or boilers, but in those cases, shall not take place inside ports, harbours or estuaries.

5 Nothing in this regulation either:

- .1 affects the incineration at sea prohibitions of the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter, 1972, as amended, and the 1996 Protocol thereto, or other requirements thereof,
or
- .2 precludes the development, installation and operation of alternative design shipboard thermal waste treatment devices that meet or exceed the requirements of this regulation.

6.1 Except as provided in paragraph 6.2 of this regulation, each incinerator on a ship constructed on or after 1 January 2000 or incinerator that is installed on board a ship on or after 1 January 2000 shall meet the requirements contained in appendix IV to this Annex. Each incinerator subject to this paragraph shall be approved by the Administration taking into account the standard specification for shipboard incinerators developed by the Organization;²⁹

6.2 The Administration may allow exclusion from the application of paragraph 6.1 of this regulation to any incinerator installed on board a ship before 19 May 2005, provided that the ship is solely engaged in voyages within waters subject to the sovereignty or jurisdiction of the State the flag of which the ship is entitled to fly.

7 Incinerators installed in accordance with the requirements of paragraph 6.1 of this regulation shall be provided with a manufacturer's operating manual, which is to be retained with the unit and which shall specify how to operate the incinerator within the limits described in paragraph 2 of appendix IV of this Annex.

8 Personnel responsible for the operation of an incinerator installed in accordance with the requirements of paragraph 6.1 of this regulation shall be trained to implement the guidance provided in the manufacturer's operating manual as required by paragraph 7 of this regulation.

²⁸ Type Approval Certificates issued in accordance with the *Revised guidelines for the implementation of Annex V of MARPOL* (resolution MEPC.59(33), as amended by resolution MEPC.92(45)), or *Standard specification for shipboard incinerators* (resolution MEPC.76(40), as amended by resolution MEPC.93(45)), or the *2012 Guidelines for the implementation of MARPOL Annex V* (resolution MEPC.219(63), as amended by resolution MEPC.239(65)), or the *2014 Standard specification for shipboard incinerators* (resolution MEPC.244(66)), or the *2017 Guidelines for the implementation of MARPOL Annex V* (resolution MEPC.295(71)).

²⁹ Refer to the *2014 Standard specification for shipboard incinerators* (resolution MEPC.244(66)), or *Standard specification for shipboard incinerators* (resolution MEPC.76(40), as amended by resolution MEPC.93(45)), and *Type approval of shipboard incinerators* (MEPC.1/Circ.793).

9 For incinerators installed in accordance with the requirements of paragraph 6.1 of this regulation the combustion chamber gas outlet temperature shall be monitored at all times the unit is in operation. Where that incinerator is of the continuous-feed type, waste shall not be fed into the unit when the combustion chamber gas outlet temperature is below 850°C. Where that incinerator is of the batch-loaded type, the unit shall be designed so that the combustion chamber gas outlet temperature shall reach 600°C within five minutes after start-up, and will thereafter stabilize at a temperature not less than 850°C.

Regulation 17

Reception facilities

1 Each Party undertakes to ensure the provision of facilities adequate to meet the:

- .1 needs of ships using its repair ports for the reception of ozone-depleting substances and equipment containing such substances when removed from ships;
- .2 needs of ships using its ports, terminals or repair ports for the reception of exhaust gas cleaning residues from an exhaust gas cleaning system;

without causing undue delay to ships, and

- .3 needs in ship-breaking facilities for the reception of ozone-depleting substances and equipment containing such substances when removed from ships.

2 Small island developing States³⁰ may satisfy the requirements in paragraph 1 of this regulation through regional arrangements when, because of those States' unique circumstances, such arrangements are the only practical means to satisfy these requirements. Parties participating in a regional arrangement shall develop a Regional Reception Facilities Plan, taking into account the guidelines developed by the Organization.³¹

The Government of each Party participating in the arrangement shall consult with the Organization for circulation to the Parties of the present Convention:

- .1 how the Regional Reception Facilities Plan takes into account the Guidelines;
- .2 particulars of the identified Regional Ships Waste Reception Centres; and
- .3 particulars of those ports with only limited facilities.

3 If a particular port or terminal of a Party is, taking into account the guidelines to be developed by the Organization, remotely located from, or lacking in, the industrial infrastructure necessary to manage and process those substances referred to in paragraph 1 of this regulation and therefore cannot accept such substances, then the Party shall inform the Organization of any such port or terminal so that this information may be circulated to all Parties and Member States of the Organization for their information and any appropriate action. Each Party that has provided the Organization with such information shall also notify the Organization of its ports and terminals where reception facilities are available to manage and process such substances.

³⁰ Refer to the 2012 *Guidelines for the development of a regional reception facilities plan* (resolution MEPC.221(63)).

³¹ Refer to the 2011 *Guidelines for reception facilities under MARPOL Annex VI* (resolution MEPC.199(62)).

4 Each Party shall notify the Organization for circulation to the Members of the Organization of all cases where the facilities provided under this regulation are unavailable or alleged to be inadequate.

Regulation 18

Fuel oil availability and quality

Fuel oil availability

1 Each Party shall take all reasonable steps to promote the availability of fuel oils that comply with this Annex and inform the Organization of the availability of compliant fuel oils in its ports and terminals.

2.1 If a ship is found by a Party not to be in compliance with the standards for compliant fuel oils set forth in this Annex, the competent authority of the Party is entitled to require the ship to:

- .1 present a record of the actions taken to attempt to achieve compliance; and
- .2 provide evidence that it attempted to purchase compliant fuel oil in accordance with its voyage plan and, if it was not made available where planned, that attempts were made to locate alternative sources for such fuel oil and that despite best efforts to obtain compliant fuel oil, no such fuel oil was made available for purchase.

2.2 The ship should not be required to deviate from its intended voyage or to delay unduly the voyage in order to achieve compliance.

2.3 If a ship provides the information set forth in paragraph 2.1 of this regulation, a Party shall take into account all relevant circumstances and the evidence presented to determine the appropriate action to take, including not taking control measures.

2.4 A ship shall notify its Administration and the competent authority of the relevant port of destination when it cannot purchase compliant fuel oil.

2.5 A Party shall notify the Organization when a ship has presented evidence of the non-availability of compliant fuel oil.

Fuel oil quality

3 Fuel oil for combustion purposes delivered to and used on board ships to which this Annex applies shall meet the following requirements:

- .1 except as provided in paragraph 3.2 of this regulation:
 - .1.1 the fuel oil shall be blends of hydrocarbons derived from petroleum refining. This shall not preclude the incorporation of small amounts of additives intended to improve some aspects of performance;
 - .1.2 the fuel oil shall be free from inorganic acid; and
 - .1.3 the fuel oil shall not include any added substance or chemical waste that:

- .1 jeopardizes the safety of ships or adversely affects the performance of the machinery, or
 - .2 is harmful to personnel, or
 - .3 contributes overall to additional air pollution.
- .2 fuel oil for combustion purposes derived by methods other than petroleum refining shall not:
 - .2.1 exceed the applicable sulphur content set forth in regulation 14 of this Annex;
 - .2.2 cause an engine to exceed the applicable NO_x emission limit set forth in paragraphs 3, 4, 5.1.1 and 7.4 of regulation 13;
 - .2.3 contain inorganic acid; or
 - .2.4.1 jeopardize the safety of ships or adversely affect the performance of the machinery, or
 - .2.4.2 be harmful to personnel, or
 - .2.4.3 contribute overall to additional air pollution.

4 This regulation does not apply to coal in its solid form or nuclear fuels. Paragraphs 5, 6, 7.1, 7.2, 8.1, 8.2, 9.2, 9.3, and 9.4 of this regulation do not apply to gas fuels such as liquefied natural gas, compressed natural gas or liquefied petroleum gas. The sulphur content of gas fuels delivered to a ship specifically for combustion purposes on board that ship shall be documented by the supplier.

5 For each ship subject to regulations 5 and 6 of this Annex, details of fuel oil for combustion purposes delivered to and used on board shall be recorded by means of a bunker delivery note that shall contain at least the information specified in appendix V to this Annex.

6 The bunker delivery note shall be kept on board the ship in such a place as to be readily available for inspection at all reasonable times. It shall be retained for a period of three years after the fuel oil has been delivered on board.

7.1 The competent authority of a Party may inspect the bunker delivery notes on board any ship to which this Annex applies while the ship is in its port or offshore terminal, may make a copy of each delivery note, and may require the master or person in charge of the ship to certify that each copy is a true copy of such bunker delivery note. The competent authority may also verify the contents of each note through consultations with the port where the note was issued.

7.2 The inspection of the bunker delivery notes and the taking of certified copies by the competent authority under paragraph 7.1 of this regulation shall be performed as expeditiously as possible without causing the ship to be unduly delayed.

8.1 The bunker delivery note shall be accompanied by a representative sample of the fuel oil delivered taking into account the guidelines developed by the Organization.³² The sample is to be sealed and signed by the supplier's representative and the master or officer in charge of the bunker operation on completion of bunkering operations and retained under the ship's control until the fuel oil is substantially consumed, but in any case for a period of not less than 12 months from the time of delivery.

8.2 If a Party requires the representative sample to be analysed, it shall be done in accordance with the verification procedure set forth in appendix VI to this Annex to determine whether the fuel oil meets the requirements of this Annex.

9 Parties undertake to ensure that appropriate authorities designated by them:

- .1 maintain a register of local suppliers of fuel oil;
- .2 require local suppliers to provide the bunker delivery note and sample as required by this regulation, certified by the fuel oil supplier that the fuel oil meets the requirements of regulations 14 and 18 of this Annex;
- .3 require local suppliers to retain a copy of the bunker delivery note for at least three years for inspection and verification by the port State as necessary;
- .4 take action as appropriate against fuel oil suppliers that have been found to deliver fuel oil that does not comply with that stated on the bunker delivery note;
- .5 inform the Administration of any ship receiving fuel oil found to be non-compliant with the requirements of regulation 14 or 18 of this Annex; and
- .6 inform the Organization for circulation to Parties and Member States of the Organization of all cases where fuel oil suppliers have failed to meet the requirements specified in regulations 14 or 18 of this Annex.

10 In connection with port State inspections carried out by Parties, the Parties further undertake to:

- .1 inform the Party or non-Party under whose jurisdiction a bunker delivery note was issued of cases of delivery of non-compliant fuel oil, giving all relevant information; and
- .2 ensure that remedial action as appropriate is taken to bring non-compliant fuel oil discovered into compliance.

11 For every ship of 400 gross tonnage and above on scheduled services with frequent and regular port calls, an Administration may decide after application and consultation with affected States that compliance with paragraph 6 of this regulation may be documented in an alternative manner that gives similar certainty of compliance with regulations 14 and 18 of this Annex.

³² Refer to 2009 Guidelines for the sampling of fuel oil for determination of compliance with the revised MARPOL Annex VI (resolution MEPC.182(59)).

CHAPTER 4 – REGULATIONS ON THE CARBON INTENSITY OF INTERNATIONAL SHIPPING

Regulation 19

Application

- 1 This chapter shall apply to all ships of 400 gross tonnage and above.
- 2 The provisions of this chapter shall not apply to:
 - .1 ships solely engaged in voyages within waters subject to the sovereignty or jurisdiction of the State the flag of which the ship is entitled to fly. However, each Party should ensure, by the adoption of appropriate measures, that such ships are constructed and act in a manner consistent with the requirements of chapter 4 of this Annex, so far as is reasonable and practicable.
 - .2 ships not propelled by mechanical means, and platforms including FPSOs and FSUs and drilling rigs, regardless of their propulsion.
- 3 Regulations 22, 23, 24 and 25 of this Annex shall not apply to ships which have non-conventional propulsion, except that regulations 22 and 24 shall apply to cruise passenger ships having non-conventional propulsion and LNG carriers having conventional or non-conventional propulsion, delivered on or after 1 September 2019, as defined in regulation 2.2.1, and regulations 23 and 25 shall apply to cruise passenger ships having non-conventional propulsion and LNG carriers having conventional or non-conventional propulsion. Regulations 22, 23, 24, 25 and 28 shall not apply to category A ships as defined in the Polar Code.
- 4 Notwithstanding the provisions of paragraph 1 of this regulation, the Administration may waive the requirement for a ship of 400 gross tonnage and above to comply with regulations 22 and 24 of this Annex.
- 5 The provision of paragraph 4 of this regulation shall not apply to ships of 400 gross tonnage and above:
 - .1 for which the building contract is placed on or after 1 January 2017; or
 - .2 in the absence of a building contract, the keel of which is laid or which is at a similar stage of construction on or after 1 July 2017; or
 - .3 the delivery of which is on or after 1 July 2019; or
 - .4 in cases of a major conversion of a new or existing ship, as defined in regulation 2.2.17 of this Annex, on or after 1 January 2017, and in which regulations 5.4.2 and 5.4.3 of this Annex apply.
- 6 The Administration of a Party to the present Convention which allows the application of paragraph 4, or suspends, withdraws or declines the application of that paragraph, to a ship entitled to fly its flag shall forthwith communicate to the Organization for circulation to the Parties to the present Protocol particulars thereof, for their information.

Regulation 20

Goal

The goal of this chapter is to reduce the carbon intensity of international shipping, working towards the levels of ambition set out in the *Initial IMO Strategy on reduction of GHG emissions from ships*.³³

Regulation 21

Functional requirements

In order to achieve the goal set out in regulation 20 of this Annex, a ship to which this chapter applies shall comply, as applicable, with the following functional requirements to reduce its carbon intensity:

- .1 the technical carbon intensity requirements in accordance with regulations 22, 23, 24 and 25 of this Annex; and
- .2 the operational carbon intensity requirements in accordance with regulations 26, 27 and 28 of this Annex.

Regulation 22

Attained Energy Efficiency Design Index (attained EEDI)

1 The attained EEDI shall be calculated for:

- .1 each new ship;
- .2 each new ship which has undergone a major conversion; and
- .3 each new or existing ship which has undergone a major conversion that is so extensive that the ship is regarded by the Administration as a newly constructed ship

which falls into one or more of the categories in regulations 2.2.5, 2.2.7, 2.2.9, 2.2.11, 2.2.14 to 2.2.16, 2.2.20, 2.2.22, and 2.2.26 to 2.2.29 of this Annex. The attained EEDI shall be specific to each ship and shall indicate the estimated performance of the ship in terms of energy efficiency, and be accompanied by the EEDI technical file that contains the information necessary for the calculation of the attained EEDI and that shows the process of calculation. The attained EEDI shall be verified, based on the EEDI technical file, either by the Administration or by any organization duly authorized by it.³⁴

2 The attained EEDI shall be calculated taking into account the guidelines³⁵ developed by the Organization.

3 For each ship subject to regulation 24 of this Annex, the Administration or any organization duly authorized by it shall report to the Organization the required and attained

³³ *Initial IMO Strategy on reduction of GHG emissions from ships* (resolution MEPC.304(72))

³⁴ Refer to the Code for Recognized Organizations (RO Code), as adopted by the Organization by resolution MEPC.237(65), as may be amended by the Organization.

³⁵ Refer 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 by resolutions MEPC.322(74) and MEPC.332(76)).

EEDI values and relevant information, taking into account the guidelines developed by the Organization,³⁶ via electronic communication:

- .1 within seven months of completing the survey required under regulation 5.4 of this Annex; or
- .2 within seven months following 1 April 2022 for a ship delivered prior to 1 April 2022.

Regulation 23

Attained Energy Efficiency Existing Ship Index (attained EEXI)

1 The attained EEXI shall be calculated for:

- .1 each ship; and
- .2 each ship which has undergone a major conversion

which falls into one or more of the categories in regulations 2.2.5, 2.2.7, 2.2.9, 2.2.11, 2.2.14 to 2.2.16, 2.2.22, and 2.2.26 to 2.2.29 of this Annex. The attained EEXI shall be specific to each ship and shall indicate the estimated performance of the ship in terms of energy efficiency, and be accompanied by the EEXI technical file which contains the information necessary for the calculation of the attained EEXI and which shows the process of the calculation. The attained EEXI shall be verified, based on the EEXI technical file, either by the Administration or by any organization duly authorized by it.³⁷

2 The attained EEXI shall be calculated taking into account the guidelines³⁸ developed by the Organization.

3 Notwithstanding paragraph 1 of this regulation, for each ship to which regulation 22 of this Annex applies, the attained EEDI verified by the Administration or by any organization duly authorized by it in accordance with regulation 22.1 of this Annex may be taken as the attained EEXI if the value of the attained EEDI is equal to or less than that of the required EEXI required by regulation 25 of this Annex. In this case, the attained EEXI shall be verified based on the EEDI technical file.

Regulation 24

Required EEDI

1 For each:

- .1 new ship,
- .2 new ship which has undergone a major conversion, and

³⁶ Refer 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 by resolutions MEPC.322(74) and MEPC.332(76)).

³⁷ Refer to the Code for Recognized Organizations (RO Code), as adopted by the Organization by resolution MEPC.237(65), as may be amended by the Organization.

³⁸ *2021 Guidelines on the method of calculation of the attained Energy Efficiency Existing Ship Index (EEXI)* (resolution MEPC.333(76)).

- .3 new or existing ship which has undergone a major conversion that is so extensive that the ship is regarded by the Administration as a newly constructed ship

which falls into one of the categories in regulations 2.2.5, 2.2.7, 2.2.9, 2.2.11, 2.2.14 to 2.2.16, 2.2.22, and 2.2.26 to 2.2.29 and to which this chapter is applicable, the attained EEDI shall be as follows:

$$\text{Attained EEDI} \leq \text{Required EEDI} = \left(1 - \frac{x}{100}\right) \cdot \text{Reference line value}$$

where X is the reduction factor specified in table 1 for the required EEDI compared to the EEDI reference line.

2 For each new and existing ship that has undergone a major conversion which is so extensive that the ship is regarded by the Administration as a newly constructed ship, the attained EEDI shall be calculated and meet the requirement of paragraph 1 of this regulation with the reduction factor applicable corresponding to the ship type and size of the converted ship at the date of the contract of the conversion, or in the absence of a contract, the commencement date of the conversion.

Table 1 - Reduction factors (in percentage) for the EEDI relative to the EEDI reference line

| Ship Type | Size | Phase 0 1 Jan 2013 – 31 Dec 2014 | Phase 1 1 Jan 2015 – 31 Dec 2019 | Phase 2 1 Jan 2020 – 31 Mar 2022 | Phase 2 1 Jan 2020 – 31 Dec 2024 | Phase 3 1 Apr 2022 and onwards | Phase 3 1 Jan 2025 and onwards |
|------------------------|--|--|--|--|--|--|--|
| Bulk carrier | 20,000 DWT and above | 0 | 10 | | 20 | | 30 |
| | 10,000 and above but less than 20,000 DWT | n/a | 0-10* | | 0-20* | | 0-30* |
| Gas carrier | 15,000 DWT and above | 0 | 10 | 20 | | 30 | |
| | 10,000 and above but less than 15,000 DWT | 0 | 10 | | 20 | | 30 |
| | 2,000 and above but less than 10,000 DWT | n/a | 0-10* | | 0-20* | | 0-30* |
| Tanker | 20,000 DWT and above | 0 | 10 | | 20 | | 30 |
| | 4,000 and above but less than 20,000 DWT | n/a | 0-10* | | 0-20* | | 0-30* |
| Containership | 200,000 DWT and above | 0 | 10 | 20 | | 50 | |
| | 120,000 and above but less than 200,000 DWT | 0 | 10 | 20 | | 45 | |
| | 80,000 and above but less than 120,000 DWT | 0 | 10 | 20 | | 40 | |
| | 40,000 and above but less than 80,000 DWT | 0 | 10 | 20 | | 35 | |
| | 15,000 and above but less than 40,000 DWT | 0 | 10 | 20 | | 30 | |
| | 10,000 and above but less than 15,000 DWT | n/a | 0-10* | 0-20* | | 15-30* | |
| General Cargo ships | 15,000 DWT and above | 0 | 10 | 15 | | 30 | |

| Ship Type | Size | Phase 0 1 Jan 2013 – 31 Dec 2014 | Phase 1 1 Jan 2015 – 31 Dec 2019 | Phase 2 1 Jan 2020 – 31 Mar 2022 | Phase 2 1 Jan 2020 – 31 Dec 2024 | Phase 3 1 Apr 2022 and onwards | Phase 3 1 Jan 2025 and onwards |
|---|--|--|--|--|--|--|--|
| | 3,000 and above but less than 15,000 DWT | n/a | 0-10* | 0-15* | | 0-30* | |
| Refrigerated cargo carrier | 5,000 DWT and above | 0 | 10 | | 15 | | 30 |
| | 3,000 and above but less than 5,000 DWT | n/a | 0-10* | | 0-15* | | 0-30* |
| Combination carrier | 20,000 DWT and above | 0 | 10 | | 20 | | 30 |
| | 4,000 and above but less than 20,000 DWT | n/a | 0-10* | | 0-20* | | 0-30* |
| LNG carrier*** | 10,000 DWT and above | n/a | 10** | 20 | | 30 | |
| Ro-ro cargo ship (vehicle carrier)*** | 10,000 DWT and above | n/a | 5** | | 15 | | 30 |
| Ro-ro cargo ship*** | 2,000 DWT and above | n/a | 5** | | 20 | | 30 |
| | 1,000 and above but less than 2,000 DWT | n/a | 0-5*, ** | | 0-20* | | 0-30* |
| Ro-ro passenger ship*** | 1,000 DWT and above | n/a | 5** | | 20 | | 30 |
| | 250 and above but less than 1,000 DWT | n/a | 0-5*, ** | | 0-20* | | 0-30* |
| Cruise passenger ship*** having non-conventional propulsion | 85,000 GT and above | n/a | 5** | 20 | | 30 | |
| | 25,000 and above but less than 85,000 GT | n/a | 0-5*, ** | 0-20* | | 0-30* | |

* Reduction factor to be linearly interpolated between the two values dependent upon ship size. The lower value of the reduction factor is to be applied to the smaller ship size.

** Phase 1 commences for those ships on 1 September 2015.

*** Reduction factor applies to those ships delivered on or after 1 September 2019, as defined in paragraph 2.1 of regulation 2.

Note: n/a means that no required EEDI applies.

3 The reference line values shall be calculated as follows:

$$\text{Reference line value} = a \cdot b^{-c}$$

where a , b and c are the parameters given in table 2.

Table 2 - Parameters for the determination of reference values for the different ship types

| Ship type defined in regulation 2 | a | b | c |
|---|---|---|-------|
| 2.2.5 Bulk carrier | 961.79 | DWT of the ship where $DWT \leq 279,000$ 279,000 where $DWT > 279,000$ | 0.477 |
| 2.2.7 Combination carrier | 1,219.00 | DWT of the ship | 0.488 |
| 2.2.9 Containership | 174.22 | DWT of the ship | 0.201 |
| 2.2.11 Cruise passenger ship having non-conventional propulsion | 170.84 | GT of the ship | 0.214 |
| 2.2.14 Gas carrier | 1,120.00 | DWT of the ship | 0.456 |
| 2.2.15 General cargo ship | 107.48 | DWT of the ship | 0.216 |
| 2.2.16 LNG carrier | 2,253.7 | DWT of the ship | 0.474 |
| 2.2.22 Refrigerated cargo carrier | 227.01 | DWT of the ship | 0.244 |
| 2.2.26 Ro-ro cargo ship | 1405.15 1686.17* | DWT of the ship DWT of the ship where $DWT \leq 17,000^*$ 17,000 where $DWT > 17,000^*$ | 0.498 |
| 2.2.27 Ro-ro cargo ship (vehicle carrier) | $(DWT/GT)^{-0.7} \cdot 780.36$ where $DWT/GT < 0.3$ 1,812.63 where $DWT/GT \geq 0.3$ | DWT of the ship | 0.471 |
| 2.2.28 Ro-ro passenger ship | 752.16 902.59* | DWT of the ship DWT of the ship where $DWT \leq 10,000^*$ 10,000 where $DWT > 10,000^*$ | 0.381 |
| 2.2.29 Tanker | 1,218.80 | DWT of the ship | 0.488 |

* to be used from phase 2 and thereafter.

4 If the design of a ship allows it to fall into more than one of the ship type definitions specified in table 2, the required EEDI for the ship shall be the most stringent (the lowest) required EEDI.

5 For each ship to which this regulation applies, the installed propulsion power shall not be less than the propulsion power needed to maintain the manoeuvrability of the ship under adverse conditions as defined in the guidelines to be developed by the Organization.³⁹

6 At the beginning of phase 1 and at the midpoint of phase 2, the Organization shall review the status of technological developments and, if proven necessary, amend the time periods, the EEDI reference line parameters for relevant ship types and reduction rates set out in this regulation.

Regulation 25

Required EEXI

1 For:

- .1 each ship; and
- .2 each ship which has undergone a major conversion

which falls into one of the categories in regulations 2.2.5, 2.2.7, 2.2.9, 2.2.11, 2.2.14 to 2.2.16, 2.2.22, and 2.2.26 to 2.2.29 and to which this chapter is applicable, the attained EEXI shall be as follows:

$$\text{Attained EEXI} \leq \text{Required EEXI} = \left(1 - \frac{Y}{100}\right) \cdot \text{EEDI reference line value}$$

where Y is the reduction factor specified in Table 3 for the required EEXI compared to the EEDI reference line.

Table 3 - Reduction factors (in percentage) for the EEXI relative to the EEDI reference line

| Ship type | Size | Reduction factor |
|--------------|--|------------------|
| Bulk carrier | 200,000 DWT and above | 15 |
| | 20,000 and above but less than 200,000 DWT | 20 |
| | 10,000 and above but less than 20,000 DWT | 0-20* |
| Gas carrier | 15,000 DWT and above | 30 |
| | 10,000 and above but less than 15,000 DWT | 20 |
| | 2,000 and above but less than 10,000 DWT | 0-20* |
| Tanker | 200,000 DWT and above | 15 |
| | 20,000 and above but less than 200,000 DWT | 20 |

³⁹ Refer to the 2013 Interim guidelines for determining minimum propulsion power to maintain the manoeuvrability of ships in adverse conditions (resolution MEPC.232(65), as amended by resolutions MEPC.255(67) and MEPC.262(68)): consolidated text: MEPC.1/Circ.850/Rev.2, and the Guidelines for determining minimum propulsion power to maintain the manoeuvrability of ships in adverse conditions (MEPC.1/Circ.850/Rev.3).

| Ship type | Size | Reduction factor |
|--|---|------------------|
| | 4,000 and above but less than 20,000 DWT | 0-20* |
| Containership | 200,000 DWT and above | 50 |
| | 120,000 and above but less than 200,000 DWT | 45 |
| | 80,000 and above but less than 120,000 DWT | 35 |
| | 40,000 and above but less than 80,000 DWT | 30 |
| | 15,000 and above but less than 40,000 DWT | 20 |
| | 10,000 and above but less than 15,000 DWT | 0-20* |
| General cargo ship | 15,000 DWT and above | 30 |
| | 3,000 and above but less than 15,000 DWT | 0-30* |
| Refrigerated cargo carrier | 5,000 DWT and above | 15 |
| | 3,000 and above but less than 5,000 DWT | 0-15* |
| Combination carrier | 20,000 DWT and above | 20 |
| | 4,000 and above but less than 20,000 DWT | 0-20* |
| LNG carrier | 10,000 DWT and above | 30 |
| Ro-ro cargo ship (vehicle carrier) | 10,000 DWT and above | 15 |
| Ro-ro cargo ship | 2,000 DWT and above | 5 |
| | 1,000 and above but less than 2,000 DWT | 0-5* |
| Ro-ro passenger ship | 1,000 DWT and above | 5 |
| | 250 and above but less than 1,000 DWT | 0-5* |
| Cruise passenger ship having non-conventional propulsion | 85,000 GT and above | 30 |
| | 25,000 and above but less than 85,000 GT | 0-30* |

* Reduction factor to be linearly interpolated between the two values dependent upon ship size. The lower value of the reduction factor is to be applied to the smaller ship size.

2 The EEDI reference line values shall be calculated in accordance with regulations 24.3 and 24.4 of this Annex. For ro-ro cargo ships and ro-ro passenger ships, the reference line value to be used from phase 2 and thereafter under regulation 24.3 of this Annex shall be referred to.

3 A review shall be completed by 1 January 2026 by the Organization to assess the effectiveness of this regulation taking into account any guidelines developed by the Organization. If, based on the review, the Parties decide to adopt amendments to this regulation, such amendments shall be adopted and brought into force in accordance with the provisions of article 16 of the present Convention.

Regulation 26

Ship Energy Efficiency Management Plan (SEEMP)

1 Each ship shall keep on board a ship specific Ship Energy Efficiency Management Plan (SEEMP). This may form part of the ship's Safety Management System (SMS). The SEEMP shall be developed and reviewed, taking into account the guidelines adopted by the Organization.⁴⁰

2 In the case of a ship of 5,000 gross tonnage and above, the SEEMP shall include a description of the methodology that will be used to collect the data required by regulation 27.1 of this Annex and the processes that will be used to report the data to the ship's Administration.

3 In the case of a ship of 5,000 gross tonnage and above, which falls into one or more of the categories in regulations 2.2.5, 2.2.7, 2.2.9, 2.2.11, 2.2.14 to 2.2.16, 2.2.22, and 2.2.26 to 2.2.29 of this Annex:

- .1 On or before 1 January 2023 the SEEMP shall include:
 - .1 a description of the methodology that will be used to calculate the ship's attained annual operational CII required by regulation 28 of this Annex and the processes that will be used to report this value to the ship's Administration;
 - .2 the required annual operational CII, as specified in regulation 28 of this Annex, for the next three years;
 - .3 an implementation plan documenting how the required annual operational CII will be achieved during the next three years; and
 - .4 a procedure for self-evaluation and improvement.
- .2 For a ship rated as D for three consecutive years or rated as E in accordance with regulation 28 of this Annex, the SEEMP shall be reviewed in accordance with regulation 28.8 of this Annex to include a plan of corrective actions to achieve the required annual operational CII.
- .3 The SEEMP shall be subject to verification and company audits taking into account the guidelines to be developed by the Organization.

Regulation 27

Collection and reporting of ship fuel oil consumption data

1 From calendar year 2019, each ship of 5,000 gross tonnage and above shall collect the data specified in appendix IX to this Annex, for that and each subsequent calendar year or portion thereof, as appropriate according to the methodology included in the SEEMP.

⁴⁰ Refer to the 2016 Guidelines for the development of a ship energy efficiency management plan (SEEMP) (resolution MEPC.282(70)).

2 Except as provided for in paragraphs 4, 5 and 6 of this regulation, at the end of each calendar year, the ship shall aggregate the data collected in that calendar year or portion thereof, as appropriate.

3 Except as provided for in paragraphs 4, 5 and 6 of this regulation, within three months after the end of each calendar year, the ship shall report to its Administration or any organization duly authorized by it,⁴¹ the aggregated value for each datum specified in appendix IX to this Annex, via electronic communication and using a standardized format to be developed by the Organization.⁴²

4 In the event of the transfer of a ship from one Administration to another, the ship shall on the day of completion of the transfer or as close as practical thereto report to the losing Administration or any organization duly authorized by it⁴¹, the aggregated data for the period of the calendar year corresponding to that Administration, as specified in appendix IX to this Annex and, upon prior request of that Administration, the disaggregated data.

5 In the event of a change from one company to another, the ship shall on the day of completion of the change or as close as practical thereto report to its Administration or any organization duly authorized by it,⁴¹ the aggregated data for the portion of the calendar year corresponding to the company, as specified in appendix IX to this Annex and, upon request of its Administration, the disaggregated data.

6 In the event of change from one Administration to another and from one company to another concurrently, paragraph 4 of this regulation shall apply.

7 The data shall be verified according to procedures established by the Administration, taking into account the guidelines developed by the Organization.⁴³

8 Except as provided for in paragraphs 4, 5 and 6 of this regulation, the disaggregated data that underlies the reported data noted in appendix IX to this Annex for the previous calendar year shall be readily accessible for a period of not less than 12 months from the end of that calendar year and be made available to the Administration upon request.

9 The Administration shall ensure that the reported data noted in appendix IX to this Annex by its registered ships of 5,000 gross tonnage and above are transferred to the IMO Ship Fuel Oil Consumption Database via electronic communication and using a standardized format to be developed by the Organization not later than one month after issuing the Statements of Compliance of these ships.

10 On the basis of the reported data submitted to the IMO Ship Fuel Oil Consumption Database, the Secretary-General of the Organization shall produce an annual report to the Marine Environment Protection Committee summarizing the data collected, the status of missing data, and such other relevant information as may be requested by the Committee.

11 The Secretary-General of the Organization shall grant the Administration of a ship to which regulation 28 of this Annex applies access to all the reported data for all the preceding calendar year in the IMO Ship Fuel Oil Consumption Database for that ship.

⁴¹ Refer to the Code for Recognized Organizations (RO Code), as adopted by the Organization by resolution MEPC.237(65), as may be amended by the Organization.

⁴² Refer to the *2016 Guidelines for the development of a Ship Energy Efficiency Management Plan (SEEMP Guidelines)* (resolution MEPC.282(70)).

⁴³ Refer to the *2017 Guidelines for Administration verification of ship fuel oil consumption data* (resolution MEPC.292(71)).

12 The Secretary-General of the Organization shall maintain an anonymized database such that identification of a specific ship will not be possible. Parties shall have access to the anonymized data strictly for their analysis and consideration.

13 The IMO Ship Fuel Oil Consumption Database shall be undertaken and managed by the Secretary-General of the Organization, pursuant to guidelines to be developed by the Organization.

Regulation 28

Operational carbon intensity

Attained annual operational carbon intensity indicator (attained annual operational CII)

1 After the end of calendar year 2023 and after the end of each following calendar year, each ship of 5,000 gross tonnage and above which falls into one or more of the categories in regulations 2.2.5, 2.2.7, 2.2.9, 2.2.11, 2.2.14 to 2.2.16, 2.2.22, and 2.2.26 to 2.2.29 of this Annex shall calculate the attained annual operational CII over a 12-month period from 1 January to 31 December for the preceding calendar year, using the data collected in accordance with regulation 27 of this Annex, taking into account the guidelines to be developed by the Organization.

2 Within three months after the end of each calendar year, the ship shall report to its Administration, or any organization duly authorized by it, the attained annual operational CII via electronic communication and using a standardized format to be developed by the Organization.

3 Notwithstanding 1 and 2 of this regulation, in the event of any transfer of a ship addressed in regulations 27.4, 27.5 or 27.6 completed after 1 January 2023, a ship shall, after the end of the calendar year in which the transfer takes place, calculate and report the attained annual operational CII for the full 12-month period from 1 January to 31 December in the calendar year during which the transfer took place, in accordance with regulations 28.1 and 28.2, for verification in accordance with regulation 6.6 of this Annex, taking into account guidelines to be developed by the Organization. Nothing in this regulation relieves any ship of its reporting obligations under regulation 27 or this regulation of this Annex.

Required annual operational carbon intensity indicator (required annual operational CII)

4 For each ship of 5,000 gross tonnage and above which falls into one or more of the categories in regulations 2.2.5, 2.2.7, 2.2.9, 2.2.11, 2.2.14 to 2.2.16, 2.2.22, and 2.2.26 to 2.2.29 of this Annex, the required annual operational CII shall be determined as follows:

$$\text{Required annual operational CII} = \left(1 - \frac{Z}{100}\right) \cdot \text{CII}_R$$

where,

Z is the annual reduction factor to ensure continuous improvement of the ship's operational carbon intensity within a specific rating level; and

CII_R is the reference value.

5 The annual reduction factor Z⁴⁴ and the reference value CII_R shall be the values defined taking into account the guidelines to be developed by the Organization.

⁴⁴ The annual reduction factor is specific to each category of ship. This factor is defined to increase progressively to meet the objectives of the *Initial IMO Strategy on reduction of GHG emissions from ships* (resolution MEPC.304(72)).

Operational carbon intensity rating

6 The *attained annual operational CII* shall be documented and verified against the required annual operational CII to determine operational carbon intensity rating A, B, C, D or E, indicating a major superior, minor superior, moderate, minor inferior, or inferior performance level, either by the Administration or by any organization duly authorized by it, taking into account the guidelines developed by the Organization. The middle point of rating level C shall be the value equivalent to the required annual operational CII set out in paragraph 4 of this regulation.

Corrective actions and incentives

7 A ship rated as D for three consecutive years or rated as E shall develop a plan of corrective actions to achieve the required annual operational CII.

8 The SEEMP shall be reviewed to include the plan of corrective actions accordingly, taking into account the guidelines to be developed by the Organization. The revised SEEMP shall be submitted to the Administration or any organization duly authorized by it for verification, preferably together with, but in no case later than 1 month after reporting the attained annual operational CII in accordance with paragraph 2 of this regulation.

9 A ship rated as D for three consecutive years or rated as E shall duly undertake the planned corrective actions in accordance with the revised SEEMP.

10 Administrations, port authorities and other stakeholders as appropriate, are encouraged to provide incentives to ships rated as A or B.

Review

11 A review shall be completed by 1 January 2026 by the Organization to assess:

- .1 the effectiveness of this regulation in reducing the carbon intensity of international shipping;
- .2 the need for reinforced corrective actions or other means of remedy, including possible additional EEXI requirements;
- .3 the need for enhancement of the enforcement mechanism;
- .4 the need for enhancement of the data collection system; and
- .5 the revision of the Z factor and CII_R values.

If based on the review the Parties decide to adopt amendments to this regulation, such amendments shall be adopted and brought into force in accordance with the provisions of article 16 of the present Convention.

Regulation 29

Promotion of technical cooperation and transfer of technology relating to the improvement of energy efficiency of ships⁴⁵

1 Administrations shall, in cooperation with the Organization and other international bodies, promote and provide support, as appropriate, directly or through the Organization to States that request technical assistance, especially developing States.

2 The Administration of a Party shall cooperate actively with other Parties, subject to its national laws, regulations and policies, to promote the development and transfer of technology and exchange of information to States which request technical assistance, particularly developing States, in respect of the implementation of measures to fulfil the requirements of chapter 4 of this Annex, in particular regulations 19.4 to 19.6.

Chapter 5 – Verification of compliance with the provisions of this Annex

Regulation 30

Application

Parties shall use the provisions of the Code for Implementation in the execution of their obligations and responsibilities contained in this Annex.

Regulation 31

Verification of compliance

1 Every Party shall be subject to periodic audits by the Organization in accordance with the audit standard to verify compliance with and implementation of this Annex.

2 The Secretary-General of the Organization shall have responsibility for administering the Audit Scheme, based on the guidelines developed by the Organization.⁴⁶

3 Every Party shall have responsibility for facilitating the conduct of the audit and implementation of a programme of actions to address the findings, based on the guidelines developed by the Organization.⁴⁶

4 The audits of all Parties shall be:

- .1 based on an overall schedule developed by the Secretary-General of the Organization, taking into account the guidelines developed by the Organization;⁴⁶ and
- .2 conducted at periodic intervals, taking into account the guidelines developed by the Organization.⁴⁶

⁴⁵ Refer to *Promotion of technical cooperation and transfer of technology relating to the improvement of energy efficiency of ships* (resolution MEPC.229(65)), and the *Model agreement between governments on technological cooperation for the implementation of the regulations in chapter 4 of MARPOL Annex VI* (MEPC.1/Circ.861).

⁴⁶ Refer to the *Framework and procedures for the IMO Member State Audit Scheme* (resolution A.1067(28)).

Appendix I

Form of International Air Pollution Prevention (IAPP) Certificate (regulation 8)

INTERNATIONAL AIR POLLUTION PREVENTION CERTIFICATE

Issued under the provisions of the Protocol of 1997, as amended, to amend the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto (hereinafter referred to as "the Convention") under the authority of the Government of:

.....
(full designation of the country)

by.....
(full designation of the competent person or organization
authorized under the provisions of the Convention)

Particulars of ship¹

Name of ship

Distinctive number or letters

IMO Number²

Port of registry

Gross tonnage

THIS IS TO CERTIFY:

1 That the ship has been surveyed in accordance with regulation 5 of Annex VI of the Convention; and

2 That the survey shows that the equipment, systems, fittings, arrangements and materials fully comply with the applicable requirements of Annex VI of the Convention.

This Certificate is valid until (dd/mm/yyyy)³.....
subject to surveys in accordance with regulation 5 of Annex VI of the Convention.

Completion date of the survey on which this Certificate is based (dd/mm/yyyy).....

Issued at
(place of issue of Certificate)

Date (dd/mm/yyyy)
(date of issue)

.....
(signature of duly authorized
official issuing the Certificate)

¹ Alternatively, the particulars of the ship may be placed horizontally in boxes.

² In accordance with the IMO Ship Identification Number Scheme (resolution A.1117(30)).

³ Insert the date of expiry as specified by the Administration in accordance with regulation 9.1 of Annex VI of the Convention. The day and the month of this date correspond to the anniversary date as defined in regulation 2.1.3 of Annex VI of the Convention, unless amended in accordance with regulation 9.8 of Annex VI of the Convention.

(seal or stamp of the authority, as appropriate)

ENDORSEMENT FOR ANNUAL AND INTERMEDIATE SURVEYS

THIS IS TO CERTIFY that, at a survey required by regulation 5 of Annex VI of the Convention, the ship was found to comply with the relevant provisions of that Annex:

Annual survey Signed.
(signature of duly authorized official)

Place

Date (dd/mm/yyyy)
(seal or stamp of the authority, as appropriate)

Annual/Intermediate⁴ survey Signed.....
(signature of duly authorized official)

Place

Date (dd/mm/yyyy)
(seal or stamp of the authority, as appropriate)

Annual/Intermediate⁴ survey Signed.....
(signature of duly authorized official)

Place

Date (dd/mm/yyyy)
(seal or stamp of the authority, as appropriate)

Annual survey Signed.
(signature of duly authorized official)

Place.....

Date (dd/mm/yyyy)
(seal or stamp of the authority, as appropriate)

ANNUAL/INTERMEDIATE SURVEY IN ACCORDANCE WITH REGULATION 9.8.3

THIS IS TO CERTIFY that, at an annual/intermediate⁴ survey in accordance with regulation 9.8.3 of Annex VI of the Convention, the ship was found to comply with the relevant provisions of that Annex:

Signed.....
(signature of duly authorized official)

Place

⁴ Delete as appropriate.

Date (dd/mm/yyyy)

(seal or stamp of the authority, as appropriate)

ENDORSEMENT TO EXTEND THE CERTIFICATE IF VALID FOR LESS
THAN FIVE YEARS WHERE REGULATION 9.3 APPLIES

The ship complies with the relevant provisions of the Annex, and this Certificate shall, in accordance with regulation 9.3 of Annex VI of the Convention, be accepted as valid until (dd/mm/yyyy)

Signed.

.....
(signature of duly authorized official)

Place

Date (dd/mm/yyyy)

(seal or stamp of the authority, as appropriate)

ENDORSEMENT WHERE THE RENEWAL SURVEY HAS BEEN
COMPLETED AND REGULATION 9.4 APPLIES

The ship complies with the relevant provisions of the Annex, and this Certificate shall, in accordance with regulation 9.4 of Annex VI of the Convention, be accepted as valid until (dd/mm/yyyy)

Signed.
(signature of duly authorized official)

Place

Date (dd/mm/yyyy)

(seal or stamp of the authority, as appropriate)

ENDORSEMENT TO EXTEND THE VALIDITY OF THE CERTIFICATE
UNTIL REACHING THE PORT OF SURVEY OR FOR A PERIOD OF GRACE
WHERE REGULATION 9.5 OR 9.6 APPLIES

This Certificate shall, in accordance with regulation 9.5 or 9.6⁵ of Annex VI of the Convention, be accepted as valid until (dd/mm/yyyy).....

Signed.
(signature of duly authorized official)

Place

Date (dd/mm/yyyy)

(seal or stamp of the authority, as appropriate)

⁵ Delete as appropriate.

ENDORSEMENT FOR ADVANCEMENT OF ANNIVERSARY DATE
WHERE REGULATION 9.8 APPLIES

In accordance with regulation 9.8 of Annex VI of the Convention, the new anniversary date is
(dd/mm/yyyy).....

Signed.
(signature of duly authorized official)

Place

Date (dd/mm/yyyy)

(seal or stamp of the authority, as appropriate)

In accordance with regulation 9.8 of Annex VI of the Convention, the new anniversary date is
(dd/mm/yyyy).....

Signed.....
(signature of duly authorized official)

Place

Date (dd/mm/yyyy)

(seal or stamp of the authority, as appropriate)

SUPPLEMENT TO
INTERNATIONAL AIR POLLUTION PREVENTION CERTIFICATE (IAPP CERTIFICATE)
RECORD OF CONSTRUCTION AND EQUIPMENT

Notes

- 1 This Record shall be permanently attached to the IAPP Certificate. The IAPP Certificate shall be available on board the ship at all times.
- 2 The Record shall be at least in English, French or Spanish. If an official language of the issuing country is also used, this shall prevail in case of a dispute or discrepancy.
- 3 Entries in boxes shall be made by inserting either: a cross (x) for the answers "yes" and "applicable"; or a dash (–) for the answers "no" and "not applicable", as appropriate.
- 4 Unless otherwise stated, regulations mentioned in this Record refer to regulations of Annex VI of the Convention and resolutions or circulars refer to those adopted by the International Maritime Organization.

1 Particulars of ship

- 1.1 Name of ship.....
- 1.2 IMO Number.....
- 1.3 Date on which keel was laid or ship was at a similar stage of construction (dd/mm/yyyy).....
- 1.4 Length (L)⁶ metres

2 Control of emissions from ships

2.1 *Ozone-depleting substances* (regulation 12)

- 2.1.1 The following fire-extinguishing systems, other systems and equipment containing ozone-depleting substances, other than hydrochlorofluorocarbons (HCFCs), installed before 19 May 2005 may continue in service:

| System or equipment | Location on board | Substance |
|---------------------|-------------------|-----------|
| | | |
| | | |
| | | |

⁶ Completed only in respect of ships constructed on or after 1 January 2016 that are specially designed, and used solely for recreational purposes and to which, in accordance with regulation 13.5.2.1 or regulation 13.5.2.3, the NO_x emission limit as given by regulation 13.5.1.1 will not apply.

2.1.2 The following systems containing HCFCs installed before 1 January 2020 may continue in service:

| System or equipment | Location on board | Substance |
|---------------------|-------------------|-----------|
| | | |
| | | |
| | | |

2.2 Nitrogen oxides (NO_x) (regulation 13)

2.2.1 The following marine diesel engines installed on this ship are in accordance with the requirements of regulation 13, as indicated:

| Applicable regulation of MARPOL Annex VI (NTC = NO _x Technical Code 2008) (AM = approved method) | | | Engine #1 | Engine #2 | Engine #3 | Engine #4 | Engine #5 |
|---|---|--------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 1 | Manufacturer and model | | | | | | |
| 2 | Serial number | | | | | | |
| 3 | Use (applicable application cycle(s) – NTC 3.2) | | | | | | |
| 4 | Rated power (kW) (NTC 1.3.11) | | | | | | |
| 5 | Rated speed (rpm) (NTC 1.3.12) | | | | | | |
| 6 | Identical engine installed ≥ 1/1/2000 exempted by 13.1.1.2 | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 7 | Identical engine installation date (dd/mm/yyyy) as per 13.1.1.2 | | | | | | |
| 8a | Major conversion (dd/mm/yyyy) | 13.2.1.1 & 13.2.2 | | | | | |
| 8b | | 13.2.1.2 & 13.2.3 | | | | | |
| 8c | | 13.2.1.3 & 13.2.3 | | | | | |
| 9a | Tier I | 13.3 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 9b | | 13.2.2 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 9c | | 13.2.3.1 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 9d | | 13.2.3.2 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 9e | | 13.7.1.2 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 10a | Tier II | 13.4 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 10b | | 13.2.2 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 10c | | 13.2.2 (Tier III not possible) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 10d | | 13.2.3.2 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 10e | | 13.5.2 (Exemptions) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 10f | | 13.7.1.2 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 11a | NO _x Tier III Emission Control Areas | 13.5.1.1 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 11b | | 13.2.2 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 11c | | 13.2.3.2 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

| Applicable regulation of MARPOL Annex VI (NTC = NO _x Technical Code 2008) (AM = approved method) | | | Engine #1 | Engine #2 | Engine #3 | Engine #4 | Engine #5 |
|---|-----------------|--|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 11d | | 13.7.1.2 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 12 | AM ⁷ | installed | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 13 | | not commercially available at this survey | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 14 | | not applicable | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

2.3 Sulphur oxides (SO_x) and particulate matter (regulation 14)

2.3.1 When the ship operates outside of an emission control area specified in regulation 14.3, the ship uses:

- .1 fuel oil with a sulphur content as documented by bunker delivery notes that does not exceed the limit value of 0.50% m/m, and/or☐
- .2 an equivalent arrangement approved in accordance with regulation 4.1 as listed in paragraph 2.6 that is at least as effective in terms of SO_x emission reductions as compared to using a fuel oil with a sulphur content limit value of 0.50% m/m☐

2.3.2 When the ship operates inside an emission control area specified in regulation 14.3, the ship uses:

- .1 fuel oil with a sulphur content as documented by bunker delivery notes that does not exceed the limit value of 0.10% m/m, and/or☐
- .2 an equivalent arrangement approved in accordance with regulation 4.1 as listed in paragraph 2.6 that is at least as effective in terms of SO_x emission reductions as compared to using a fuel oil with a sulphur content limit value of 0.10% m/m☐

2.3.3 For a ship without an equivalent arrangement approved in accordance with regulation 4.1 as listed in paragraph 2.6, the sulphur content of fuel oil carried for use on board the ship shall not exceed 0.50% m/m as documented by bunker delivery notes☐

2.3.4 The ship is fitted with designated sampling point(s) in accordance with regulation 14.10 or 14.11.....☐

2.3.5 In accordance with regulation 14.12, the requirement for fitting or designating sampling point(s) in accordance with regulation 14.10 or 14.11 is not applicable for a fuel oil service system for a low-flashpoint fuel for combustion purposes for propulsion or operation on board the ship☐

2.4 Volatile organic compounds (VOCs) (regulation 15)

2.4.1 The tanker has a vapour collection system installed and approved in accordance with MSC/Circ.585.....☐

⁷ Refer to 2014 Guidelines on the approved method process (resolution MEPC.243(66)).

2.4.2.1 For a tanker carrying crude oil, there is an approved VOC management plan□

2.4.2.2 VOC management plan approval reference

2.5 Shipboard incineration (regulation 16)

The ship has an incinerator:

.1 installed on or after 1 January 2000 that complies with:

.1 resolution MEPC.76(40), as amended⁸□

.2 resolution MEPC.244(66)□

.2 installed before 1 January 2000 that complies with:

.1 resolution MEPC.59(33), as amended⁹□

.2 resolution MEPC.76(40), as amended¹⁰□

2.2 Equivalents (regulation 4)

The ship has been allowed to use the following fitting, material, appliance or apparatus to be fitted in a ship or other procedures, alternative fuel oils, or compliance methods used as an alternative to that required by this Annex:

| System or equipment | Equivalent used | Approval reference |
|---------------------|-----------------|--------------------|
| | | |
| | | |
| | | |

THIS IS TO CERTIFY that this Record is correct in all respects.

Issued at
(place of issue of the Record)

Date (dd/mm/yyyy)
(date of issue) (signature of duly authorized official issuing the Record)

(seal or stamp of the authority, as appropriate)

⁸ As amended by resolution MEPC.93(45).

⁹ As amended by resolution MEPC.92(45).

¹⁰ As amended by resolution MEPC.93(45).

Appendix II

Test cycles and weighting factors (regulation 13)

The following test cycles and weighting factors shall be applied for verification of compliance of marine diesel engines with the applicable NO_x limit in accordance with regulation 13 of this Annex using the test procedure and calculation method as specified in the revised NO_x Technical Code 2008.

- .1 For constant-speed marine engines for ship main propulsion, including diesel-electric drive, test cycle E2 shall be applied.
- .2 For controllable-pitch propeller sets test cycle E2 shall be applied.
- .3 For propeller-law-operated main and propeller-law-operated auxiliary engines the test cycle E3 shall be applied.
- .4 For constant-speed auxiliary engines test cycle D2 shall be applied.
- .5 For variable-speed, variable-load auxiliary engines, not included above, test cycle C1 shall be applied.

Test cycle for *constant-speed main propulsion* application
(including diesel-electric drive and all controllable-pitch propeller installations)

| | | | | | |
|-----------------------|------------------|------|------|------|------|
| Test cycle type E2 | Speed | 100% | 100% | 100% | 100% |
| | Power | 100% | 75% | 50% | 25% |
| | Weighting factor | 0.2 | 0.5 | 0.15 | 0.15 |

Test cycle for *propeller-law-operated main* and *propeller-law-operated auxiliary engine* application

| | | | | | |
|-----------------------|------------------|------|-----|------|------|
| Test cycle type E3 | Speed | 100% | 91% | 80% | 63% |
| | Power | 100% | 75% | 50% | 25% |
| | Weighting factor | 0.2 | 0.5 | 0.15 | 0.15 |

Test cycle for *constant-speed auxiliary engine* application

| | | | | | | |
|-----------------------|------------------|------|------|------|------|------|
| Test cycle type D2 | Speed | 100% | 100% | 100% | 100% | 100% |
| | Power | 100% | 75% | 50% | 25% | 10% |
| | Weighting factor | 0.05 | 0.25 | 0.3 | 0.3 | 0.1 |

Test cycle for *variable-speed and variable-load auxiliary engine* application

| | | | | | | | | | |
|-----------------------|------------------|-------|------|------|-----|--------------|-----|-----|------|
| Test cycle type C1 | Speed | Rated | | | | Intermediate | | | Idle |
| | Torque | 100% | 75% | 50% | 10% | 100% | 75% | 50% | 0% |
| | Weighting factor | 0.15 | 0.15 | 0.15 | 0.1 | 0.1 | 0.1 | 0.1 | 0.15 |

In the case of an engine to be certified in accordance with paragraph 5.1.1 of regulation 13, the specific emission at each individual mode point shall not exceed the applicable NO_x emission limit value by more than 50% except as follows:

- .1 The 10% mode point in the D2 test cycle.
- .2 The 10% mode point in the C1 test cycle.
- .3 The idle mode point in the C1 test cycle.

Appendix III

Criteria and procedures for the designation of emission control areas (regulations 13.6 and 14.3)

1 Objectives

1.1 The purpose of this appendix is to provide Parties with the criteria and procedures for formulating and submitting proposals for the designation of emission control areas and to set forth the factors to be considered in the assessment of such proposals by the Organization.

1.2 Emissions of NO_x, SO_x and particulate matter from ocean-going ships contribute to ambient concentrations of air pollution in cities and coastal areas around the world. Adverse public health and environmental effects associated with air pollution include premature mortality, cardiopulmonary disease, lung cancer, chronic respiratory ailments, acidification and eutrophication.

1.3 An emission control area should be considered for adoption by the Organization if supported by a demonstrated need to prevent, reduce and control emissions of NO_x or SO_x and particulate matter or all three types of emissions (hereinafter emissions) from ships.

2 Process for the designation of emission control areas

2.1 A proposal to the Organization for the designation of an emission control area for NO_x or SO_x and particulate matter or all three types of emissions may be submitted only by Parties. Where two or more Parties have a common interest in a particular area, they should formulate a coordinated proposal.

2.2 A proposal to designate a given area as an emission control area should be submitted to the Organization in accordance with the rules and procedures established by the Organization.

3 Criteria for designation of an emission control area

3.1 The proposal shall include:

- .1 a clear delineation of the proposed area of application, along with a reference chart on which the area is marked;
- .2 the type or types of emission(s) that is or are being proposed for control (i.e. NO_x or SO_x and particulate matter or all three types of emissions);
- .3 a description of the human populations and environmental areas at risk from the impacts of ship emissions;
- .4 an assessment that emissions from ships operating in the proposed area of application are contributing to ambient concentrations of air pollution or to adverse environmental impacts. Such assessment shall include a description of the impacts of the relevant emissions on human health and the environment, such as adverse impacts on terrestrial and aquatic ecosystems, areas of natural productivity, critical habitats, water quality, human health, and areas of cultural and scientific significance, if applicable. The sources of relevant data including methodologies used shall be identified;

- .5 relevant information, pertaining to the meteorological conditions in the proposed area of application, to the human populations and environmental areas at risk, in particular prevailing wind patterns, or to topographical, geological, oceanographic, morphological or other conditions that contribute to ambient concentrations of air pollution or adverse environmental impacts;
- .6 the nature of the ship traffic in the proposed emission control area, including the patterns and density of such traffic;
- .7 a description of the control measures taken by the proposing Party or Parties addressing land-based sources of NO_x, SO_x and particulate matter emissions affecting the human populations and environmental areas at risk that are in place and operating concurrently with the consideration of measures to be adopted in relation to provisions of regulations 13 and 14 of Annex VI; and
- .8 the relative costs of reducing emissions from ships when compared with land-based controls, and the economic impacts on shipping engaged in international trade.

3.2 The geographical limits of an emission control area will be based on the relevant criteria outlined above, including emissions and deposition from ships navigating in the proposed area, traffic patterns and density, and wind conditions.

4 Procedures for the assessment and adoption of emission control areas by the Organization

4.1 The Organization shall consider each proposal submitted to it by a Party or Parties.

4.2 In assessing the proposal, the Organization shall take into account the criteria that are to be included in each proposal for adoption as set forth in section 3 above.

4.3 An emission control area shall be designated by means of an amendment to this Annex, considered, adopted and brought into force in accordance with article 16 of the present Convention.

5 Operation of emission control areas

5.1 Parties that have ships navigating in the area are encouraged to bring to the Organization any concerns regarding the operation of the area.

Appendix IV

Type approval and operating limits for shipboard incinerators (regulation 16)

1 Shipboard incinerators described in regulation 16.6.1 shall possess an IMO Type Approval Certificate for each incinerator. In order to obtain such certificate, the incinerator shall be designed and built to an approved standard as described in regulation 16.6.1. Each model shall be subject to a specified type approval test operation at the factory or an approved test facility, and under the responsibility of the Administration, using the following standard fuel/waste specification for the type approval test for determining whether the incinerator operates within the limits specified in paragraph 2 of this appendix:

| | |
|----------------------------|---|
| Sludge oil consisting of: | 75% sludge oil from heavy fuel oil (HFO); 5% waste lubricating oil; and 20% emulsified water. |
| Solid waste consisting of: | 50% food waste; 50% rubbish containing: approx. 30% paper, “ 40% cardboard, “ 10% rags, “ 20% plastic. The mixture will have up to 50% moisture and 7% incombustible solids. |

2 Incinerators described in regulation 16.6.1 shall operate within the following limits:

| | |
|--|---|
| O ₂ in combustion chamber: | 6–12% |
| CO in flue gas maximum average: | 200 mg/MJ |
| Soot number maximum average: | Bacharach 3 or Ringelmann 1 (20% opacity) (a higher soot number is acceptable only during very short periods such as starting up) |
| Unburned components in ash residues: | Maximum 10% by weight |
| Combustion chamber flue gas outlet temperature range: | 850–1200°C |

Appendix V

Information to be included in the bunker delivery note (regulation 18.5)

- 1 Name and IMO Number of receiving ship
- 2 Port
- 3 Date of commencement of delivery
- 4 Name, address and telephone number of marine fuel oil supplier
- 5 Product name(s)
- 6 Quantity in metric tonnes
- 7 Density at 15°C (kg/m³)¹
- 8 Sulphur content (% m/m)²
- 9 A declaration signed and certified by the fuel oil supplier's representative that the fuel oil supplied is in conformity with regulation 18.3 of this Annex and that the sulphur content of the fuel oil supplied does not exceed:
 - ☐ the limit value given by regulation 14.1 of this Annex;
 - ☐ the limit value given by regulation 14.4 of this Annex; or
 - ☐ the purchaser's specified limit value of _____ (% m/m), as completed by the fuel oil supplier's representative and on the basis of the purchaser's notification that the fuel oil:
 - .1 is intended to be used in combination with an equivalent means of compliance in accordance with regulation 4 of this Annex; or
 - .2 is subject to a relevant exemption for a ship to conduct trials for sulphur oxides emission reduction and control technology research in accordance with regulation 3.2 of this Annex.

The declaration shall be completed by the fuel oil supplier's representative by marking the applicable box(es) with a cross (x).

¹ Fuel oil shall be tested in accordance with ISO 3675:1998 or ISO 12185:1996.

² Fuel oil shall be tested in accordance with ISO 8754:2003.

Appendix VI

Verification procedures for a MARPOL Annex VI fuel oil sample (regulation 18.8.2 or regulation 14.8)

The following relevant verification procedure shall be used to determine whether the fuel oil delivered to, in use or carried for use on board a ship has met the applicable sulphur limit of regulation 14 of this Annex.

This appendix refers to the following representative MARPOL Annex VI fuel oil samples:

Part 1 – sample of fuel oil delivered¹ in accordance with regulation 18.8.1, hereafter referred to as the "MARPOL delivered sample" as defined in regulation 2.1.22.

Part 2 – sample of fuel oil in use,² intended to be used or carried for use on board in accordance with regulation 14.8, hereafter referred to as the "in-use sample" as defined in regulation 2.1.16 and "onboard sample"³ as defined in regulation 2.1.24.

Part 1 – MARPOL delivered sample

1 General Requirements

1.1 The representative sample of the fuel oil, which is required by regulation 18.8.1 (the MARPOL delivered sample), shall be used to verify the sulphur content of the fuel oil delivered to a ship.

1.2 A Party, through its competent authority, shall manage the verification procedure.

1.3 A laboratory undertaking the sulphur testing procedure given in this appendix shall have valid accreditation⁴ in respect of the test method to be used.

2 Verification Procedure Part 1

2.1 The MARPOL delivered sample shall be conveyed by the competent authority to the laboratory.

2.2 The laboratory shall:

- .1 record the details of the seal number and the sample label on the test record;
- .2 record the condition of the seal of the sample as received on the test record; and
- .3 reject any sample where the seal has been broken prior to receipt and record that rejection on the test record.

¹ Samples taken in accordance with the 2009 *Guidelines for the sampling of fuel oil for determination of compliance with the revised MARPOL Annex VI* (resolution MEPC.182(59)).

² Samples taken in accordance with the 2019 *Guidelines for on board sampling for the verification of the sulphur content of the fuel oil used on board ships* (MEPC.1/Circ.864/Rev.1).

³ Refer to the 2020 *Guidelines for on board sampling of fuel oil intended to be used or carried for use on board a ship* (MEPC.1/Circ.889).

⁴ The laboratory is to be accredited to ISO/IEC 17025:2017 or an equivalent standard for the performance of the given sulphur content test ISO 8754:2003.

2.3 If the seal of the sample as received has not been broken, the laboratory shall proceed with the verification procedure and shall:

- .1 unseal the sample;
- .2 ensure that the sample is thoroughly homogenized;
- .3 draw two subsamples from the sample; and
- .4 reseal the sample and record the new reseal details on the test record.

2.4 The two subsamples shall be tested in succession, in accordance with the specified test method referred to in regulation 2.1.30 of this Annex. For the purposes of this Part 1 verification procedure, the results of the test analysis shall be referred to as '1A' and '1B':

- .1 results 1A and 1B shall be recorded on the test record in accordance with the requirements of the test method; and
- .2 if the results of 1A and 1B are within the repeatability (r)⁵ of the test method, the results shall be considered valid; or
- .3 if the results 1A and 1B are not within the repeatability (r) of the test method, both results shall be rejected and two new subsamples shall be taken by the laboratory and tested. The sample bottle shall be resealed in accordance with paragraph 2.3.4 after the new subsamples have been taken.
- .4 in the case of two failures to achieve repeatability between 1A and 1B, the cause of that failure shall be investigated by the laboratory and resolved before further testing of the sample is undertaken. On resolution of that repeatability issue, two new subsamples shall be taken in accordance with paragraph 2.3. The sample shall be resealed in accordance with paragraph 2.3.4 after the new subsamples have been taken.

2.5 If the test results of 1A and 1B are valid, an average of these two results shall be calculated. The average value shall be referred to as 'X' and shall be recorded on the test record:

- .1 if the result X is equal to or less than the applicable limit required by regulation 14, the fuel oil shall be considered to have met the requirement; or
- .2 if the result X is greater than the applicable limit required by regulation 14, the fuel oil shall be considered to have not met the requirement.

⁵ Repeatability (r) calculation in accordance with ISO 4259:2017-2 and as defined in the test method used.

Table 1: Summary of Part 1 MARPOL delivered sample procedure

| On the basis of the test method referred to in regulation 2.1.30 of this Annex | | |
|--|---------------------------------------|-------------------------|
| Applicable limit % m/m: V | Result 2.5.1: $X \leq V$ | Result 2.5.2: $X > V$ |
| 0.10 | Met the requirement | Not met the requirement |
| 0.50 | | |
| | Result X reported to 2 decimal places | |

2.6 The final results obtained from this verification procedure shall be evaluated by the competent authority.

2.7 The laboratory shall provide a copy of the test record to the competent authority managing the verification procedure.

Part 2 – In-use and onboard samples

3 General Requirements

3.1 The in-use or onboard sample, as appropriate, shall be used to verify the sulphur content of the fuel oil as represented by that sample of fuel oil at the point of sampling.

3.2 A Party, through its competent authority, shall manage the verification procedure.

3.3 A laboratory undertaking the sulphur testing procedure given in this appendix shall have valid accreditation⁶ in respect of the test method to be used.

4 Verification Procedure Part 2

4.1 The in-use or onboard sample shall be conveyed by the competent authority to the laboratory.

4.2 The laboratory shall:

- .1 record the details of the seal number and the sample label on the test record;
- .2 record the condition of the seal of the sample as received on the test record; and
- .3 reject any sample where the seal has been broken prior to receipt and record that rejection on the test record.

4.3 If the seal of the sample as received has not been broken, the laboratory shall proceed with the verification procedure and shall:

- .1 unseal the sample;
- .2 ensure that the sample is thoroughly homogenized;
- .3 draw two subsamples from the sample; and

⁶ The laboratory is to be accredited to ISO/IEC 17025:2017 or an equivalent standard for the performance of the given sulphur content test ISO 8754:2003.

- .4 reseal the sample and record the new reseal details on the test record.

4.4 The two subsamples shall be tested in succession, in accordance with the specified test method referred to in regulation 2.1.30 of this Annex. For the purposes of this Part 2 verification procedure, the results obtained shall be referred to as '2A' and '2B':

- .1 results 2A and 2B shall be recorded on the test record in accordance with the requirements of the test method; and
- .2 if the results of 2A and 2B are within the repeatability (r)⁷ of the test method, the results shall be considered valid; or
- .3 if the results of 2A and 2B are not within the repeatability (r) of the test method, both results shall be rejected and two new subsamples shall be taken by the laboratory and tested. The sample bottle shall be resealed in accordance with paragraph 4.3.4 after the new subsamples have been taken; and
- .4 in the case of two failures to achieve repeatability between 2A and 2B, the cause of that failure shall be investigated by the laboratory and resolved before further testing of the sample is undertaken. On resolution of that repeatability issue, two new subsamples shall be taken in accordance with paragraph 4.3. The sample shall be resealed in accordance with paragraph 4.3.4 after the new subsamples have been taken.

4.5 If the test results of 2A and 2B are valid, an average of these two results shall be calculated. That average value shall be referred to as 'Z' and shall be recorded on the test record:

- .1 if Z is equal to or less than the applicable limit required by regulation 14, the sulphur content of the fuel oil as represented by the tested sample shall be considered to have met the requirement;
- .2 if Z is greater than the applicable limit required by regulation 14 but less than or equal to that applicable limit + 0.59R (where R is the reproducibility of the test method),⁸ the sulphur content of the fuel oil as represented by the tested sample shall be considered to have met the requirement; or
- .3 if Z is greater than the applicable limit required by regulation 14 + 0.59R, the sulphur content of the fuel oil as represented by the tested sample shall be considered to have not met the requirement.

⁷ Repeatability (r) calculation in accordance with ISO 4259:2017-2 and as defined in the test method used.

⁸ Reproducibility (R) calculation in accordance with ISO 4259:2017-2 and as defined in the test method used.

Table 2: Summary of in-use or onboard sample procedure⁹

| On the basis of the test method referred to in regulation 2.1.30 of this Annex | | | | |
|--|----------------------------|---------------------------------------|----------------------------|----------------------------|
| Applicable limit %m/m: V | Test margin value: W | Result 4.5.1: Z ≤ V | Result 4.5.2: V < Z ≤ W | Result 4.5.3: Z > W |
| 0.10 | 0.11 | Met the requirement | Met the requirement | Not met the requirement |
| 0.50 | 0.53 | | | |
| | | Result Z reported to 2 decimal places | | |

4.6 The final results obtained from this verification procedure shall be evaluated by the competent authority.

4.7 The laboratory shall provide a copy of the test record to the competent authority managing the verification procedure.

⁹ Results of testing undertaken by the company or other entities are outside the MARPOL process and hence should be considered within the approach given by ISO 4259:2017-2 regarding recipient drawn samples.

Appendix VII

Emission control areas (regulations 13.6 and 14.3)

1 The boundaries of emission control areas designated under regulations 13.6 and 14.3, other than the Baltic Sea and the North Sea areas, are set forth in this appendix.

2 The North American area comprises:

.1 the sea area located off the Pacific coasts of the United States and Canada, enclosed by geodesic lines connecting the following coordinates:

| Point | Latitude | Longitude |
|-------|-------------|--------------|
| 1 | 32°32'.10 N | 117°06'.11 W |
| 2 | 32°32'.04 N | 117°07'.29 W |
| 3 | 32°31'.39 N | 117°14'.20 W |
| 4 | 32°33'.13 N | 117°15'.50 W |
| 5 | 32°34'.21 N | 117°22'.01 W |
| 6 | 32°35'.23 N | 117°27'.53 W |
| 7 | 32°37'.38 N | 117°49'.34 W |
| 8 | 31°07'.59 N | 118°36'.21 W |
| 9 | 30°33'.25 N | 121°47'.29 W |
| 10 | 31°46'.11 N | 123°17'.22 W |
| 11 | 32°21'.58 N | 123°50'.44 W |
| 12 | 32°56'.39 N | 124°11'.47 W |
| 13 | 33°40'.12 N | 124°27'.15 W |
| 14 | 34°31'.28 N | 125°16'.52 W |
| 15 | 35°14'.38 N | 125°43'.23 W |
| 16 | 35°44'.00 N | 126°18'.53 W |
| 17 | 36°16'.25 N | 126°45'.30 W |
| 18 | 37°01'.35 N | 127°07'.18 W |
| 19 | 37°45'.39 N | 127°38'.02 W |
| 20 | 38°25'.08 N | 127°53'.00 W |
| 21 | 39°25'.05 N | 128°31'.23 W |
| 22 | 40°18'.47 N | 128°45'.46 W |
| 23 | 41°13'.39 N | 128°40'.22 W |
| 24 | 42°12'.49 N | 129°00'.38 W |
| 25 | 42°47'.34 N | 129°05'.42 W |
| 26 | 43°26'.22 N | 129°01'.26 W |
| 27 | 44°24'.43 N | 128°41'.23 W |
| 28 | 45°30'.43 N | 128°40'.02 W |
| 29 | 46°11'.01 N | 128°49'.01 W |
| 30 | 46°33'.55 N | 129°04'.29 W |
| 31 | 47°39'.55 N | 131°15'.41 W |
| 32 | 48°32'.32 N | 132°41'.00 W |
| 33 | 48°57'.47 N | 133°14'.47 W |

| Point | Latitude | Longitude |
|-------|-------------|--------------|
| 34 | 49°22'.39 N | 134°15'.51 W |
| 35 | 50°01'.52 N | 135°19'.01 W |
| 36 | 51°03'.18 N | 136°45'.45 W |
| 37 | 51°54'.04 N | 137°41'.54 W |
| 38 | 52°45'.12 N | 138°20'.14 W |
| 39 | 53°29'.20 N | 138°40'.36 W |
| 40 | 53°40'.39 N | 138°48'.53 W |
| 41 | 54°13'.45 N | 139°32'.38 W |
| 42 | 54°39'.25 N | 139°56'.19 W |
| 43 | 55°20'.18 N | 140°55'.45 W |
| 44 | 56°07'.12 N | 141°36'.18 W |
| 45 | 56°28'.32 N | 142°17'.19 W |
| 46 | 56°37'.19 N | 142°48'.57 W |
| 47 | 58°51'.04 N | 153°15'.03 W |

- .2 the sea areas located off the Atlantic coasts of the United States, Canada and France (Saint- Pierre-et-Miquelon), and the Gulf of Mexico coast of the United States enclosed by geodesic lines connecting the following coordinates:

| Point | Latitude | Longitude |
|-------|-------------|-------------|
| 1 | 60°00'.00 N | 64°09'.36 W |
| 2 | 60°00'.00 N | 56°43'.00 W |
| 3 | 58°54'.01 N | 55°38'.05 W |
| 4 | 57°50'.52 N | 55°03'.47 W |
| 5 | 57°35'.13 N | 54°00'.59 W |
| 6 | 57°14'.20 N | 53°07'.58 W |
| 7 | 56°48'.09 N | 52°23'.29 W |
| 8 | 56°18'.13 N | 51°49'.42 W |
| 9 | 54°23'.21 N | 50°17'.44 W |
| 10 | 53°44'.54 N | 50°07'.17 W |
| 11 | 53°04'.59 N | 50°10'.05 W |
| 12 | 52°20'.06 N | 49°57'.09 W |
| 13 | 51°34'.20 N | 48°52'.45 W |
| 14 | 50°40'.15 N | 48°16'.04 W |
| 15 | 50°02'.28 N | 48°07'.03 W |
| 16 | 49°24'.03 N | 48°09'.35 W |
| 17 | 48°39'.22 N | 47°55'.17 W |
| 18 | 47°24'.25 N | 47°46'.56 W |
| 19 | 46°35'.12 N | 48°00'.54 W |
| 20 | 45°19'.45 N | 48°43'.28 W |
| 21 | 44°43'.38 N | 49°16'.50 W |

| Point | Latitude | Longitude |
|-------|-------------|-------------|
| 22 | 44°16'.38 N | 49°51'.23 W |
| 23 | 43°53'.15 N | 50°34'.01 W |
| 24 | 43°36'.06 N | 51°20'.41 W |
| 25 | 43°23'.59 N | 52°17'.22 W |
| 26 | 43°19'.50 N | 53°20'.13 W |
| 27 | 43°21'.14 N | 54°09'.20 W |
| 28 | 43°29'.41 N | 55°07'.41 W |
| 29 | 42°40'.12 N | 55°31'.44 W |
| 30 | 41°58'.19 N | 56°09'.34 W |
| 31 | 41°20'.21 N | 57°05'.13 W |
| 32 | 40°55'.34 N | 58°02'.55 W |
| 33 | 40°41'.38 N | 59°05'.18 W |
| 34 | 40°38'.33 N | 60°12'.20 W |
| 35 | 40°45'.46 N | 61°14'.03 W |
| 36 | 41°04'.52 N | 62°17'.49 W |
| 37 | 40°36'.55 N | 63°10'.49 W |
| 38 | 40°17'.32 N | 64°08'.37 W |
| 39 | 40°07'.46 N | 64°59'.31 W |
| 40 | 40°05'.44 N | 65°53'.07 W |
| 41 | 39°58'.05 N | 65°59'.51 W |
| 42 | 39°28'.24 N | 66°21'.14 W |
| 43 | 39°01'.54 N | 66°48'.33 W |
| 44 | 38°39'.16 N | 67°20'.59 W |
| 45 | 38°19'.20 N | 68°02'.01 W |
| 46 | 38°05'.29 N | 68°46'.55 W |
| 47 | 37°58'.14 N | 69°34'.07 W |
| 48 | 37°57'.47 N | 70°24'.09 W |
| 49 | 37°52'.46 N | 70°37'.50 W |
| 50 | 37°18'.37 N | 71°08'.33 W |
| 51 | 36°32'.25 N | 71°33'.59 W |
| 52 | 35°34'.58 N | 71°26'.02 W |
| 53 | 34°33'.10 N | 71°37'.04 W |
| 54 | 33°54'.49 N | 71°52'.35 W |
| 55 | 33°19'.23 N | 72°17'.12 W |
| 56 | 32°45'.31 N | 72°54'.05 W |
| 57 | 31°55'.13 N | 74°12'.02 W |
| 58 | 31°27'.14 N | 75°15'.20 W |
| 59 | 31°03'.16 N | 75°51'.18 W |
| 60 | 30°45'.42 N | 76°31'.38 W |
| 61 | 30°12'.48 N | 77°18'.29 W |
| 62 | 29°25'.17 N | 76°56'.42 W |

| Point | Latitude | Longitude |
|-------|-------------|-------------|
| 63 | 28°36'.59 N | 76°48'.00 W |
| 64 | 28°17'.13 N | 76°40'.10 W |
| 65 | 28°17'.12 N | 79°11'.23 W |
| 66 | 27°52'.56 N | 79°28'.35 W |
| 67 | 27°26'.01 N | 79°31'.38 W |
| 68 | 27°16'.13 N | 79°34'.18 W |
| 69 | 27°11'.54 N | 79°34'.56 W |
| 70 | 27°05'.59 N | 79°35'.19 W |
| 71 | 27°00'.28 N | 79°35'.17 W |
| 72 | 26°55'.16 N | 79°34'.39 W |
| 73 | 26°53'.58 N | 79°34'.27 W |
| 74 | 26°45'.46 N | 79°32'.41 W |
| 75 | 26°44'.30 N | 79°32'.23 W |
| 76 | 26°43'.40 N | 79°32'.20 W |
| 77 | 26°41'.12 N | 79°32'.01 W |
| 78 | 26°38'.13 N | 79°31'.32 W |
| 79 | 26°36'.30 N | 79°31'.06 W |
| 80 | 26°35'.21 N | 79°30'.50 W |
| 81 | 26°34'.51 N | 79°30'.46 W |
| 82 | 26°34'.11 N | 79°30'.38 W |
| 83 | 26°31'.12 N | 79°30'.15 W |
| 84 | 26°29'.05 N | 79°29'.53 W |
| 85 | 26°25'.31 N | 79°29'.58 W |
| 86 | 26°23'.29 N | 79°29'.55 W |
| 87 | 26°23'.21 N | 79°29'.54 W |
| 88 | 26°18'.57 N | 79°31'.55 W |
| 89 | 26°15'.26 N | 79°33'.17 W |
| 90 | 26°15'.13 N | 79°33'.23 W |
| 91 | 26°08'.09 N | 79°35'.53 W |
| 92 | 26°07'.47 N | 79°36'.09 W |
| 93 | 26°06'.59 N | 79°36'.35 W |
| 94 | 26°02'.52 N | 79°38'.22 W |
| 95 | 25°59'.30 N | 79°40'.03 W |
| 96 | 25°59'.16 N | 79°40'.08 W |
| 97 | 25°57'.48 N | 79°40'.38 W |
| 98 | 25°56'.18 N | 79°41'.06 W |
| 99 | 25°54'.04 N | 79°41'.38 W |
| 100 | 25°53'.24 N | 79°41'.46 W |
| 101 | 25°51'.54 N | 79°41'.59 W |
| 102 | 25°49'.33 N | 79°42'.16 W |
| 103 | 25°48'.24 N | 79°42'.23 W |

| Point | Latitude | Longitude |
|-------|-------------|-------------|
| 104 | 25°48'.20 N | 79°42'.24 W |
| 105 | 25°46'.26 N | 79°42'.44 W |
| 106 | 25°46'.16 N | 79°42'.45 W |
| 107 | 25°43'.40 N | 79°42'.59 W |
| 108 | 25°42'.31 N | 79°42'.48 W |
| 109 | 25°40'.37 N | 79°42'.27 W |
| 110 | 25°37'.24 N | 79°42'.27 W |
| 111 | 25°37'.08 N | 79°42'.27 W |
| 112 | 25°31'.03 N | 79°42'.12 W |
| 113 | 25°27'.59 N | 79°42'.11 W |
| 114 | 25°24'.04 N | 79°42'.12 W |
| 115 | 25°22'.21 N | 79°42'.20 W |
| 116 | 25°21'.29 N | 79°42'.08 W |
| 117 | 25°16'.52 N | 79°41'.24 W |
| 118 | 25°15'.57 N | 79°41'.31 W |
| 119 | 25°10'.39 N | 79°41'.31 W |
| 120 | 25°09'.51 N | 79°41'.36 W |
| 121 | 25°09'.03 N | 79°41'.45 W |
| 122 | 25°03'.55 N | 79°42'.29 W |
| 123 | 25°03'.00 N | 79°42'.56 W |
| 124 | 25°00'.30 N | 79°44'.05 W |
| 125 | 24°59'.03 N | 79°44'.48 W |
| 126 | 24°55'.28 N | 79°45'.57 W |
| 127 | 24°44'.18 N | 79°49'.24 W |
| 128 | 24°43'.04 N | 79°49'.38 W |
| 129 | 24°42'.36 N | 79°50'.50 W |
| 130 | 24°41'.47 N | 79°52'.57 W |
| 131 | 24°38'.32 N | 79°59'.58 W |
| 132 | 24°36'.27 N | 80°03'.51 W |
| 133 | 24°33'.18 N | 80°12'.43 W |
| 134 | 24°33'.05 N | 80°13'.21 W |
| 135 | 24°32'.13 N | 80°15'.16 W |
| 136 | 24°31'.27 N | 80°16'.55 W |
| 137 | 24°30'.57 N | 80°17'.47 W |
| 138 | 24°30'.14 N | 80°19'.21 W |
| 139 | 24°30'.06 N | 80°19'.44 W |
| 140 | 24°29'.38 N | 80°21'.05 W |
| 141 | 24°28'.18 N | 80°24'.35 W |
| 142 | 24°28'.06 N | 80°25'.10 W |
| 143 | 24°27'.23 N | 80°27'.20 W |
| 144 | 24°26'.30 N | 80°29'.30 W |

| Point | Latitude | Longitude |
|-------|-------------|-------------|
| 145 | 24°25'.07 N | 80°32'.22 W |
| 146 | 24°23'.30 N | 80°36'.09 W |
| 147 | 24°22'.33 N | 80°38'.56 W |
| 148 | 24°22'.07 N | 80°39'.51 W |
| 149 | 24°19'.31 N | 80°45'.21 W |
| 150 | 24°19'.16 N | 80°45'.47 W |
| 151 | 24°18'.38 N | 80°46'.49 W |
| 152 | 24°18'.35 N | 80°46'.54 W |
| 153 | 24°09'.51 N | 80°59'.47 W |
| 154 | 24°09'.48 N | 80°59'.51 W |
| 155 | 24°08'.58 N | 81°01'.07 W |
| 156 | 24°08'.30 N | 81°01'.51 W |
| 157 | 24°08'.26 N | 81°01'.57 W |
| 158 | 24°07'.28 N | 81°03'.06 W |
| 159 | 24°02'.20 N | 81°09'.05 W |
| 160 | 24°00'.00 N | 81°11'.16 W |
| 161 | 23°55'.32 N | 81°12'.55 W |
| 162 | 23°53'.52 N | 81°19'.43 W |
| 163 | 23°50'.52 N | 81°29'.59 W |
| 164 | 23°50'.02 N | 81°39'.59 W |
| 165 | 23°49'.05 N | 81°49'.59 W |
| 166 | 23°49'.05 N | 82°00'.11 W |
| 167 | 23°49'.42 N | 82°09'.59 W |
| 168 | 23°51'.14 N | 82°24'.59 W |
| 169 | 23°51'.14 N | 82°39'.59 W |
| 170 | 23°49'.42 N | 82°48'.53 W |
| 171 | 23°49'.32 N | 82°51'.11 W |
| 172 | 23°49'.24 N | 82°59'.59 W |
| 173 | 23°49'.52 N | 83°14'.59 W |
| 174 | 23°51'.22 N | 83°25'.49 W |
| 175 | 23°52'.27 N | 83°33'.01 W |
| 176 | 23°54'.04 N | 83°41'.35 W |
| 177 | 23°55'.47 N | 83°48'.11 W |
| 178 | 23°58'.38 N | 83°59'.59 W |
| 179 | 24°09'.37 N | 84°29'.27 W |
| 180 | 24°13'.20 N | 84°38'.39 W |
| 181 | 24°16'.41 N | 84°46'.07 W |
| 182 | 24°23'.30 N | 84°59'.59 W |
| 183 | 24°26'.37 N | 85°06'.19 W |
| 184 | 24°38'.57 N | 85°31'.54 W |
| 185 | 24°44'.17 N | 85°43'.11 W |

| Point | Latitude | Longitude |
|-------|-------------|-------------|
| 186 | 24°53'.57 N | 85°59'.59 W |
| 187 | 25°10'.44 N | 86°30'.07 W |
| 188 | 25°43'.15 N | 86°21'.14 W |
| 189 | 26°13'.13 N | 86°06'.45 W |
| 190 | 26°27'.22 N | 86°13'.15 W |
| 191 | 26°33'.46 N | 86°37'.07 W |
| 192 | 26°01'.24 N | 87°29'.35 W |
| 193 | 25°42'.25 N | 88°33'.00 W |
| 194 | 25°46'.54 N | 90°29'.41 W |
| 195 | 25°44'.39 N | 90°47'.05 W |
| 196 | 25°51'.43 N | 91°52'.50 W |
| 197 | 26°17'.44 N | 93°03'.59 W |
| 198 | 25°59'.55 N | 93°33'.52 W |
| 199 | 26°00'.32 N | 95°39'.27 W |
| 200 | 26°00'.33 N | 96°48'.30 W |
| 201 | 25°58'.32 N | 96°55'.28 W |
| 202 | 25°58'.15 N | 96°58'.41 W |
| 203 | 25°57'.58 N | 97°01'.54 W |
| 204 | 25°57'.41 N | 97°05'.08 W |
| 205 | 25°57'.24 N | 97°08'.21 W |
| 206 | 25°57'.24 N | 97°08'.47 W |

- .3 the sea area located off the coasts of the Hawaiian Islands of Hawai'i, Maui, Oahu, Moloka'i, Ni'ihau, Kaua'i, Lana'i and Kaho'olawe, enclosed by geodesic lines connecting the following coordinates:

| Point | Latitude | Longitude |
|-------|-------------|--------------|
| 1 | 22°32'.54 N | 153°00'.33 W |
| 2 | 23°06'.05 N | 153°28'.36 W |
| 3 | 23°32'.11 N | 154°02'.12 W |
| 4 | 23°51'.47 N | 154°36'.48 W |
| 5 | 24°21'.49 N | 155°51'.13 W |
| 6 | 24°41'.47 N | 156°27'.27 W |
| 7 | 24°57'.33 N | 157°22'.17 W |
| 8 | 25°13'.41 N | 157°54'.13 W |
| 9 | 25°25'.31 N | 158°30'.36 W |
| 10 | 25°31'.19 N | 159°09'.47 W |
| 11 | 25°30'.31 N | 159°54'.21 W |
| 12 | 25°21'.53 N | 160°39'.53 W |
| 13 | 25°00'.06 N | 161°38'.33 W |
| 14 | 24°40'.49 N | 162°13'.13 W |
| 15 | 24°15'.53 N | 162°43'.08 W |

| Point | Latitude | Longitude |
|-------|-------------|--------------|
| 16 | 23°40'.50 N | 163°13'.00 W |
| 17 | 23°03'.20 N | 163°32'.58 W |
| 18 | 22°20'.09 N | 163°44'.41 W |
| 19 | 21°36'.45 N | 163°46'.03 W |
| 20 | 20°55'.26 N | 163°37'.44 W |
| 21 | 20°13'.34 N | 163°19'.13 W |
| 22 | 19°39'.03 N | 162°53'.48 W |
| 23 | 19°09'.43 N | 162°20'.35 W |
| 24 | 18°39'.16 N | 161°19'.14 W |
| 25 | 18°30'.31 N | 160°38'.30 W |
| 26 | 18°29'.31 N | 159°56'.17 W |
| 27 | 18°10'.41 N | 159°14'.08 W |
| 28 | 17°31'.17 N | 158°56'.55 W |
| 29 | 16°54'.06 N | 158°30'.29 W |
| 30 | 16°25'.49 N | 157°59'.25 W |
| 31 | 15°59'.57 N | 157°17'.35 W |
| 32 | 15°40'.37 N | 156°21'.06 W |
| 33 | 15°37'.36 N | 155°22'.16 W |
| 34 | 15°43'.46 N | 154°46'.37 W |
| 35 | 15°55'.32 N | 154°13'.05 W |
| 36 | 16°46'.27 N | 152°49'.11 W |
| 37 | 17°33'.42 N | 152°00'.32 W |
| 38 | 18°30'.16 N | 151°30'.24 W |
| 39 | 19°02'.47 N | 151°22'.17 W |
| 40 | 19°34'.46 N | 151°19'.47 W |
| 41 | 20°07'.42 N | 151°22'.58 W |
| 42 | 20°38'.43 N | 151°31'.36 W |
| 43 | 21°29'.09 N | 151°59'.50 W |
| 44 | 22°06'.58 N | 152°31'.25 W |
| 45 | 22°32'.54 N | 153°00'.33 W |

3 The United States Caribbean Sea area includes:

- .1 the sea area located off the Atlantic and Caribbean coasts of the Commonwealth of Puerto Rico and the United States Virgin Islands, enclosed by geodesic lines connecting the following coordinates:

| Point | Latitude | Longitude |
|-------|-------------|-------------|
| 1 | 17°18'.37 N | 67°32'.14 W |
| 2 | 19°11'.14 N | 67°26'.45 W |
| 3 | 19°30'.28 N | 65°16'.48 W |
| 4 | 19°12'.25 N | 65°06'.08 W |
| 5 | 18°45'.13 N | 65°00'.22 W |
| 6 | 18°41'.14 N | 64°59'.33 W |

| Point | Latitude | Longitude |
|-------|-------------|-------------|
| 7 | 18°29'.22 N | 64°53'.51 W |
| 8 | 18°27'.35 N | 64°53'.22 W |
| 9 | 18°25'.21 N | 64°52'.39 W |
| 10 | 18°24'.30 N | 64°52'.19 W |
| 11 | 18°23'.51 N | 64°51'.50 W |
| 12 | 18°23'.42 N | 64°51'.23 W |
| 13 | 18°23'.36 N | 64°50'.17 W |
| 14 | 18°23'.48 N | 64°49'.41 W |
| 15 | 18°24'.11 N | 64°49'.00 W |
| 16 | 18°24'.28 N | 64°47'.57 W |
| 17 | 18°24'.18 N | 64°47'.01 W |
| 18 | 18°23'.13 N | 64°46'.37 W |
| 19 | 18°22'.37 N | 64°45'.20 W |
| 20 | 18°22'.39 N | 64°44'.42 W |
| 21 | 18°22'.42 N | 64°44'.36 W |
| 22 | 18°22'.37 N | 64°44'.24 W |
| 23 | 18°22'.39 N | 64°43'.42 W |
| 24 | 18°22'.30 N | 64°43'.36 W |
| 25 | 18°22'.25 N | 64°42'.58 W |
| 26 | 18°22'.26 N | 64°42'.28 W |
| 27 | 18°22'.15 N | 64°42'.03 W |
| 28 | 18°22'.22 N | 64°40'.60 W |
| 29 | 18°21'.57 N | 64°40'.15 W |
| 30 | 18°21'.51 N | 64°38'.23 W |
| 31 | 18°21'.22 N | 64°38'.16 W |
| 32 | 18°20'.39 N | 64°38'.33 W |
| 33 | 18°19'.15 N | 64°38'.14 W |
| 34 | 18°19'.07 N | 64°38'.16 W |
| 35 | 18°17'.23 N | 64°39'.38 W |
| 36 | 18°16'.43 N | 64°39'.41 W |
| 37 | 18°11'.33 N | 64°38'.58 W |
| 38 | 18°03'.02 N | 64°38'.03 W |
| 39 | 18°02'.56 N | 64°29'.35 W |
| 40 | 18°02'.51 N | 64°27'.02 W |
| 41 | 18°02'.30 N | 64°21'.08 W |
| 42 | 18°02'.31 N | 64°20'.08 W |
| 43 | 18°02'.03 N | 64°15'.57 W |
| 44 | 18°00'.12 N | 64°02'.29 W |
| 45 | 17°59'.58 N | 64°01'.04 W |
| 46 | 17°58'.47 N | 63°57'.01 W |
| 47 | 17°57'.51 N | 63°53'.54 W |
| 48 | 17°56'.38 N | 63°53'.21 W |
| 49 | 17°39'.40 N | 63°54'.53 W |

| Point | Latitude | Longitude |
|-------|-------------|-------------|
| 50 | 17°37'.08 N | 63°55'.10 W |
| 51 | 17°30'.21 N | 63°55'.56 W |
| 52 | 17°11'.36 N | 63°57'.57 W |
| 53 | 17°05'.00 N | 63°58'.41 W |
| 54 | 16°59'.49 N | 63°59'.18 W |
| 55 | 17°18'.37 N | 67°32'.14 W |

Appendix VIII

Form of International Energy Efficiency (IEE) Certificate

INTERNATIONAL ENERGY EFFICIENCY CERTIFICATE

Issued under the provisions of the Protocol of 1997, as amended, to amend the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto (hereinafter referred to as "the Convention") under the authority of the Government of:

.....
(full designation of the country)

by

*(full designation of the competent person or organization
authorized under the provisions of the Convention)*

Particulars of ship¹

Name of ship

Distinctive number or letters

Port of registry

Gross tonnage

IMO Number²

THIS IS TO CERTIFY:

- 1 That the ship has been surveyed in accordance with regulation 5.4 of Annex VI to the Convention; and
- 2 That the survey shows that the ship complies with the applicable requirements in regulations 22, 23, 24, 25 and 26.

Completion date of survey on which this Certificate is based: (dd/mm/yyyy)

Issued at

(place of issue of certificate)

(dd/mm/yyyy):
(date of issue)

.....
*(signature of duly authorized official
issuing the certificate)*

(seal or stamp of the authority, as appropriate)

¹ Alternatively, the particulars of the ship may be placed horizontally in boxes.

² In accordance with the IMO Ship Identification Number Scheme (resolution A.1117(30)).

**Supplement to the International Energy Efficiency Certificate
(IEE Certificate)**

**RECORD OF CONSTRUCTION RELATING TO ENERGY
EFFICIENCY**

Notes:

- 1 This Record shall be permanently attached to the IEE Certificate. The IEE Certificate shall be available on board the ship at all times.
- 2 The Record shall be at least in English, French or Spanish. If an official language of the issuing Party is also used, this shall prevail in case of a dispute or discrepancy.
- 3 Entries in boxes shall be made by inserting either: a cross (x) for the answers "yes" and "applicable"; or a dash (-) for the answers "no" and "not applicable", as appropriate.
- 4 Unless otherwise stated, regulations mentioned in this Record refer to regulations in Annex VI of the Convention, and resolutions or circulars refer to those adopted by the International Maritime Organization.

1 Particulars of ship

- 1.1 Name of ship
- 1.2 IMO Number
- 1.3 Date of building contract
- 1.4 Date of major conversion (if applicable).....
- 1.5 Gross tonnage
- 1.6 Deadweight
- 1.7 Type of ship³

2 Propulsion system

- 2.1 Diesel propulsion ☐
- 2.2 Diesel-electric propulsion ☐
- 2.3 Turbine propulsion ☐
- 2.4 Hybrid propulsion ☐
- 2.5 Propulsion system other than any of the above ☐

³ Insert ship type in accordance with definitions specified in regulation 2. Ships falling into more than one of the ship types defined in regulation 2 should be considered as being the ship type with the most stringent (the lowest) required EEDI. If the ship does not fall into the ship types defined in regulation 2, insert "Ship other than ship types defined in regulation 2".

3 Attained Energy Efficiency Design Index (EEDI)

- 3.1 The attained EEDI in accordance with regulation 22.1 is calculated based on the information contained in the EEDI technical file, which also shows the process of calculating the attained EEDI..... ☐

The attained EEDI is: grams-CO₂/tonne-nautical mile

- 3.2 The attained EEDI is not calculated, as:

- 3.2.1 the ship is exempt under regulation 22.1 as it is not a new ship as defined in regulation 2.2.18 ☐

- 3.2.2 the type of propulsion system is exempt in accordance with regulation 19.3 ☐

- 3.2.3 the requirement of regulation 22 is waived by the ship's Administration in accordance with regulation 19.4 ☐

- 3.2.4 the type of ship is exempt in accordance with regulation 22.1 ☐

4 Required EEDI

- 4.1 Required EEDI is: grams-CO₂/tonne-mile

- 4.2 The required EEDI is not applicable, as:

- 4.2.1 the ship is exempt under regulation 24.1 as it is not a new ship as defined in regulation 2.2.18..... ☐

- 4.2.2 the type of propulsion system is exempt in accordance with regulation 19.3..... ☐

- 4.2.3 the requirement of regulation 24 is waived by the ship's Administration in accordance with regulation 19.4 ☐

- 4.2.4 the type of ship is exempt in accordance with regulation 24.1 ☐

- 4.2.5 the ship's capacity is below the minimum capacity threshold in table 1 of regulation 24.2..... ☐

5 Attained Energy Efficiency Existing Ship Index (EEXI)

- 5.1 The attained EEXI in accordance with regulation 23.1 is calculated taking into account the guidelines⁴ developed by the Organization..... ☐

The attained EEXI is:.....grams-CO₂/tonne-mile

- 5.2 The attained EEXI is not calculated, as:

- 5.2.1 the type of propulsion system is exempt in accordance with regulation 19.3..... ☐

- 5.2.2 the type of ship is exempt in accordance with regulation 23.1..... ☐

⁴ Refer to the 2021 Guidelines on the method of calculation of the attained Energy Efficiency Existing Ship Index (EEXI) (resolution MEPC.333(76))

6 Required EEXI

- 6.1 The required EEXI is:grams-CO₂/tonne-mile in accordance with regulation 25
- 6.2 The required EEXI is not applicable, as:
- 6.2.1 the type of propulsion system is exempt in accordance with regulation 19.3..... ☐
- 6.2.2 the type of ship is exempt in accordance with regulation 25.1..... ☐
- 6.2.3 the ship's capacity is below the minimum capacity threshold in table 3 of regulation 25.1..... ☐

7 Ship Energy Efficiency Management Plan

- 7.1 The ship is provided with a Ship Energy Efficiency Management Plan (SEEMP) in compliance with regulation 26..... ☐

8 EEDI technical file

- 8.1 The IEE Certificate is accompanied by the EEDI technical file in compliance with regulation 22.1..... ☐
- 8.1.1 The EEDI technical file identification/verification number.....
- 8.1.2 The EEDI technical file verification date.....

9 EEXI technical file

- 9.1 The IEE Certificate is accompanied by the EEXI technical file in compliance with regulation 23.1..... ☐
- 9.1.1 The EEXI technical file identification/verification number.....
- 9.1.2 The EEXI technical file verification date.....
- 9.2 The IEE Certificate is not accompanied by the EEXI technical file as the attained EEDI is used as an alternative to the attained EEXI.....☐

THIS IS TO CERTIFY that this Record is correct in all respects.

Issued at
(place of issue of the Record)

(dd/mm/yyyy):
(date of issue)

.....
(signature of duly authorized official
issuing the Record)

(seal or stamp of the authority, as appropriate)

Appendix IX

Information to be submitted to the IMO Ship Fuel Oil Consumption Database

Identity of the ship

IMO Number

Period of calendar year for which the data is submitted

Start date (dd/mm/yyyy)

End date (dd/mm/yyyy).....

Technical characteristics of the ship

Ship type, as defined in regulation 2 of this Annex or other (to be stated)

Gross tonnage (GT)¹

Net tonnage (NT)²

Deadweight tonnage (DWT)³

Power output (rated power)⁴ of main and auxiliary reciprocating internal combustion engines over 130 kW (to be stated in kW)

EEDI (if applicable).....

Ice class⁵

Fuel oil consumption, by fuel oil type⁶ in metric tonnes and methods used for collecting fuel oil consumption data

Distance travelled

Hours under way.....

¹ Gross tonnage should be calculated in accordance with the International Convention on Tonnage Measurement of Ships, 1969.

² Net tonnage should be calculated in accordance with the International Convention on Tonnage Measurement of Ships, 1969. If not applicable, note "N/A".

³ DWT means the difference in tonnes between the displacement of a ship in water of relative density of 1,025 kg/m³ at the summer load draught and the lightweight of the ship. The summer load draught should be taken as the maximum summer draught as certified in the stability booklet approved by the Administration or an organization ably it. If not applicable, note "N/A".

⁴ Rated power means the maximum continuous rated power as specified on the nameplate of the engine.

⁵ Ice class should be consistent with the definition set out in the International Code for Ships Operating in Polar Waters (Polar Code) (resolutions MEPC.264(68) and MSC.385(94)). If not applicable, note "N/A".

⁶ Refer 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 by resolutions MEPC.322(74) and MEPC.332(76)).

Appendix X

Form of Statement of Compliance – Fuel Oil Consumption Reporting and Operational Carbon Intensity rating

STATEMENT OF COMPLIANCE – FUEL OIL CONSUMPTION REPORTING AND OPERATIONAL CARBON INTENSITY RATING

Issued under the provisions of the Protocol of 1997, as amended, to amend the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto (hereinafter referred to as “the Convention”) under the authority of the Government of:

.....
(full designation of the country)

by.....
(full designation of the competent person or organization authorized under the provisions of the Convention)

Particulars of ship¹

Name of ship.....

Distinctive number or letters.....

IMO Number².....

Port of registry.....

Gross tonnage.....

Deadweight.....

Type of ship.....

THIS IS TO DECLARE THAT:

- 1 the ship has submitted to this Administration the data required by regulation 27 of Annex VI to the Convention, covering ship operations from (dd/mm/yyyy) to (dd/mm/yyyy);
- 2 the data was collected and reported in accordance with the methodology and processes set out in the ship's SEEMP that was in effect over the period from (dd/mm/yyyy) to (dd/mm/yyyy);

¹ Alternatively, the particulars of the ship may be placed horizontally in boxes.

² In accordance with the IMO Ship Identification Number Scheme (resolution A.1117(30)).

- 3 the attained annual operational CII of the ship from (dd/mm/yyyy) through (dd/mm/yyyy) was: pursuant to regulations 28.1 and 28.2 of Annex VI of the Convention, for ships to which regulation 28 applies;³
- 4 the annual operational carbon intensity of the ship in this period is rated as
- ☐A ☐B ☐C ☐D ☐E
- in accordance with regulation 28 of Annex VI to the Convention, for a ship to which regulation 28 applies³; and
- 5 a corrective action plan has been developed and included in the SEEMP (for a ship to which regulation 28 applies, rated as D for three consecutive years or rated as E)*

This Statement of Compliance is valid until (dd/mm/yyyy)

Issued at.....
(place of issue of the Statement)

(dd/mm/yyyy):
(date of issue)

.....
(signature of duly authorized official
issuing the Statement)

(seal or stamp of the authority, as appropriate)

³ In the event of any transfer of a ship addressed in regulations 27.4, 27.5 or 27.6, these sections should be completed consistent with regulation 28.3 of MARPOL Annex VI.

Appendix XI

Form of Exemption Certificate for UNSP Barges

**INTERNATIONAL AIR POLLUTION PREVENTION EXEMPTION CERTIFICATE FOR
UNMANNED NON-SELF-PROPELLED (UNSP) BARGES**

Issued under the provisions of the Protocol of 1997, as amended, to amend the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto (hereinafter referred to as "the Convention") under the authority of the Government of:

.....
(full designation of the country)

by
*(full designation of the competent person or organization
authorized under the provisions of the Convention)*

Particulars of ship¹

Name of ship.....

Distinctive number or letters.....

IMO Number².....

Port of registry.....

Gross tonnage.....

THIS IS TO CERTIFY THAT:

1 the UNSP barge has been surveyed in accordance with regulation 3.4 of Annex VI to the Convention;

2 the survey shows that the UNSP barge:

- .1 is not propelled by mechanical means;
- .2 has no system, equipment and/or machinery fitted that may generate emissions controlled by Annex VI to the Convention; and
- .3 has neither persons nor living animals on board; and

3 the UNSP barge is exempted, under regulation 3.4 of Annex VI to the Convention from the certification and related survey requirements of regulations 5.1 and 6.1 of Annex VI to the Convention.

¹ Alternatively, the particulars of the ship may be placed horizontally in boxes.

² In accordance with the IMO Ship Identification Number Scheme (resolution A.1117(30)).

This Certificate is valid until (dd/mm/yyyy)

subject to the exemption conditions being maintained.

Completion date of the survey on which this Certificate is based (dd/mm/yyyy)

Issued at
(place of issue of certificate)

(dd/mm/yyyy):
(date of issue)

.....
(signature of duly authorized official
issuing the certificate)

(seal or stamp of the authority, as appropriate)

MARINE ENVIRONMENT PROTECTION
COMMITTEE
76th session
Agenda item 15

MEPC 76/15/Add.2
12 July 2021
Original: ENGLISH

**REPORT OF THE MARINE ENVIRONMENT PROTECTION COMMITTEE
ON ITS SEVENTY-SIXTH SESSION**

Attached are annexes 2 to 20 to the report of the Marine Environment Protection Committee on its seventy-sixth session (MEPC 76/15).

(See document MEPC 76/15/Add.1 for annex 1)

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| ANNEX 3 | RESOLUTION MEPC.330(76) - AMENDMENTS TO MARPOL ANNEXES I AND IV (EXEMPTION OF UNMANNED NON-SELF-PROPELLED BARGES FROM CERTAIN SURVEY AND CERTIFICATION REQUIREMENTS) |
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ANNEX 2

**RESOLUTION MEPC.329(76)
(adopted on 17 June 2021)**

**AMENDMENTS TO THE ANNEX OF THE INTERNATIONAL CONVENTION FOR THE
PREVENTION OF POLLUTION FROM SHIPS, 1973, AS MODIFIED BY THE
PROTOCOL OF 1978 RELATING THERETO**

Amendments to MARPOL Annex I

**(Prohibition on the use and carriage for use as fuel of heavy fuel oil
by ships in Arctic waters)**

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 conferred upon it by international conventions for the prevention and control of marine pollution from ships,

RECALLING ALSO article 16 of the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto (MARPOL), which specifies the amendment procedure and confers upon the appropriate body of the Organization the function of considering and adopting amendments thereto,

HAVING CONSIDERED, at its seventy-sixth session, proposed amendments to MARPOL Annex I concerning the prohibition on the use and carriage for use as fuel of heavy fuel oil by ships in Arctic waters, which were circulated in accordance with article 16(2)(a) of MARPOL,

1 ADOPTS, in accordance with article 16(2)(d) of MARPOL, amendments to MARPOL Annex I, the text of which is set out in the annex to the present resolution;

2 DETERMINES, in accordance with article 16(2)(f)(iii) of MARPOL, that the amendments shall be deemed to have been accepted on 1 May 2022 unless prior to that date not less than one third of the Parties or Parties the combined merchant fleets of which constitute not less than 50% of the gross tonnage of the world's merchant fleet have communicated to the Organization their objection to the amendments;

3 INVITES the Parties to note that, in accordance with article 16(2)(g)(ii) of MARPOL, the said amendments shall enter into force on 1 November 2022 upon their acceptance in accordance with paragraph 2 above;

4 REQUESTS the Secretary-General, for the purposes of article 16(2)(e) of MARPOL, to transmit certified copies of the present resolution and the text of the amendments contained in the annex to all Parties to MARPOL;

5 REQUESTS ALSO the Secretary-General to transmit copies of the present resolution and its annex to Members of the Organization which are not Parties to MARPOL.

ANNEX

AMENDMENTS TO MARPOL ANNEX I

(Prohibition on the use and carriage for use as fuel of heavy fuel oil by ships in Arctic waters)

- 1 The title of chapter 9 is amended as follows:

"Chapter 9 – Special requirements for the use or carriage of oils in polar waters"

- 2 A new regulation 43A is added in chapter 9 after existing regulation 43, as follows:

"Regulation 43A

Special requirements for the use and carriage of oils as fuel in Arctic waters

1 With the exception of ships engaged in securing the safety of ships or in search and rescue operations, and ships dedicated to oil spill preparedness and response, the use and carriage of oils listed in regulation 43.1.2 of this Annex as fuel by ships shall be prohibited in Arctic waters, as defined in regulation 46.2 of this Annex, on or after 1 July 2024.

2 Notwithstanding the provisions of paragraph 1 of this regulation, for ships to which regulation 12A of this Annex or regulation 1.2.1 of chapter 1 of part II-A of the Polar Code applies, the use and carriage of oils listed in regulation 43.1.2 of this Annex as fuel by those ships shall be prohibited in Arctic waters, as defined in regulation 46.2 of this Annex, on or after 1 July 2029.

3 When prior operations have included the use and carriage of oils listed in regulation 43.1.2 of this Annex as fuel, the cleaning or flushing of tanks or pipelines is not required.

4 Notwithstanding the provisions of paragraphs 1 and 2 of this regulation, the Administration of a Party to the present Convention the coastline of which borders on Arctic waters may temporarily waive the requirements of paragraph 1 of this regulation for ships flying the flag of that Party while operating in waters subject to the sovereignty or jurisdiction of that Party, taking into account the guidelines to be developed by the Organization. No waivers issued under this paragraph shall apply on or after 1 July 2029.

5 The Administration of a Party to the present Convention which allows application of paragraph 4 of this regulation shall communicate to the Organization for circulation to the Parties particulars of the waiver thereof, for their information and appropriate action, if any."

ANNEX 3

**RESOLUTION MEPC.330(76)
(adopted on 17 June 2021)**

**AMENDMENTS TO THE ANNEX OF THE INTERNATIONAL CONVENTION FOR THE
PREVENTION OF POLLUTION FROM SHIPS, 1973, AS MODIFIED BY THE
PROTOCOL OF 1978 RELATING THERETO**

Amendments to MARPOL Annexes I and IV

**(Exemption of unmanned non-self-propelled barges from certain survey and
certification requirements)**

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 conferred upon it by international conventions for the prevention and control of marine pollution from ships,

RECALLING ALSO article 16 of the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto (MARPOL), which specifies the amendment procedure and confers upon the appropriate body of the Organization the function of considering and adopting amendments thereto,

HAVING CONSIDERED, at its seventy-sixth session, proposed amendments to MARPOL Annexes I and IV concerning the exemption of unmanned non-self-propelled (UNSP) barges from survey and certification requirements, which were circulated in accordance with article 16(2)(a) of MARPOL,

1 ADOPTS, in accordance with article 16(2)(d) of MARPOL, amendments to MARPOL Annexes I and IV, the text of which is set out in the annex to the present resolution;

2 DETERMINES, in accordance with article 16(2)(f)(iii) of MARPOL, that the amendments shall be deemed to have been accepted on 1 May 2022 unless prior to that date not less than one third of the Parties or Parties the combined merchant fleets of which constitute not less than 50% of the gross tonnage of the world's merchant fleet have communicated to the Organization their objection to the amendments;

3 INVITES the Parties to note that, in accordance with article 16(2)(g)(ii) of MARPOL, the said amendments shall enter into force on 1 November 2022 upon their acceptance in accordance with paragraph 2 above;

4 REQUESTS the Secretary-General, for the purposes of article 16(2)(e) of MARPOL, to transmit certified copies of the present resolution and the text of the amendments contained in the annexes to all Parties to MARPOL;

5 REQUESTS ALSO the Secretary-General to transmit copies of the present resolution and its annexes to Members of the Organization which are not Parties to MARPOL.

ANNEX

AMENDMENTS TO MARPOL ANNEX I

(Exemption of UNSP barges from certain survey and certification requirements)

Regulation 1

Definitions

1 A new paragraph 40 is added as follows:

- "40 *Unmanned non-self-propelled (UNSP) barge* means a barge that:
- .1 is not propelled by mechanical means;
 - .2 carries no oil (as defined in regulation 1.1 of this Annex);
 - .3 has no machinery fitted that may use oil or generate oil residue (sludge);
 - .4 has no oil fuel tank, lubricating oil tank, oily bilge water holding tank and oil residue (sludge) tank; and
 - .5 has neither persons nor living animals on board."

Regulation 3

Exemptions and waivers

2 Paragraph 2 is replaced by the following:

"2 Particulars of any such exemption, except those under paragraph 7 of this regulation, granted by the Administration shall be indicated in the Certificate referred to in regulation 7 of this Annex."

3 A new paragraph 7 is added as follows:

"7 The Administration may exempt a UNSP barge* from the requirements of regulations 6.1 and 7.1 of this Annex, by an International Oil Pollution Prevention Exemption Certificate for Unmanned Non-self-propelled Barges, for a period not exceeding five years provided that the UNSP barge has undergone a survey to confirm that the conditions referred to in regulations 1.40.1 to 1.40.5 of this Annex are met.

* Refer to the *Guidelines for exemption of unmanned non-self-propelled barges from certain survey and certification requirements under the MARPOL Convention* (MEPC.1/Circ.892)."

Regulation 8

Issue of endorsement of certificate by another Government

4 Paragraph 4 is replaced by the following:

"4 No International Oil Pollution Prevention Certificate or UNSP Exemption Certificate shall be issued to a ship which is entitled to fly the flag of a State which is not a Party."

Regulation 9

Form of certificate

5 The existing paragraph is numbered as paragraph 1 and a new paragraph 2 is added as follows:

"2 The International Oil Pollution Prevention Exemption Certificate for Unmanned Non-self-propelled Barges shall be drawn up in the form corresponding to the model given in appendix IV to this Annex and shall be at least in English, French or Spanish. If an official language of the issuing country is also used, this shall prevail in the event of a dispute or discrepancy."

6 A new appendix IV is added as follows:

"APPENDIX IV

Form of Exemption Certificate for UNSP Barges

**INTERNATIONAL OIL POLLUTION PREVENTION EXEMPTION CERTIFICATE FOR
UNMANNED NON-SELF-PROPELLED (UNSP) BARGES**

Issued under the provisions of the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978, as amended, relating thereto (hereinafter referred to as "the Convention") under the authority of the Government of:

.....
(full designation of the country)

by
(full designation of the competent person or organization
authorized under the provisions of the Convention)

Particulars of ship*

Name of ship
Distinctive number or letters.....
Port of registry
Gross tonnage

THIS IS TO CERTIFY:

1 That the UNSP barge has been surveyed in accordance with regulation 3.7 of Annex I to the Convention;

2 That the survey shows that the UNSP barge:

- .1 is not propelled by mechanical means;
- .2 carries no oil (as defined in regulation 1.1 of Annex I to the Convention);
- .3 has no machinery fitted that may use oil or generate oil residue (sludge);
- .4 has no oil fuel tank, lubricating oil tank, oily bilge water holding tank and oil residue (sludge) tank; and
- .5 has neither persons nor living animals on board; and

3 That the UNSP barge is exempted, under regulation 3.7 of Annex I to the Convention, from the certification and related survey requirements of regulations 6.1 and 7.1 of Annex I to the Convention.

This certificate is valid until (dd/mm/yyyy).....

subject to the exemption conditions being maintained.

Completion date of the survey on which this certificate is based (dd/mm/yyyy).....

* Alternatively, the particulars of the ship may be placed horizontally in boxes.

Issued at
(place of issue of certificate)

.....
(date of issue) (dd/mm/yyyy)

.....
*(signature of duly authorized
official issuing the certificate)*

(seal or stamp of the authority, as appropriate)"

AMENDMENTS TO MARPOL ANNEX IV

(Exemption of UNSP barges from certain survey and certification requirements)

Regulation 1

Definitions

1 A new paragraph 16 is added as follows:

- "16 *Unmanned non-self-propelled (UNSP) barge* means a barge that:
- .1 is not propelled by mechanical means;
 - .2 has neither persons nor living animals on board;
 - .3 is not used for holding sewage during transport; and
 - .4 has no arrangements that could produce sewage as defined in regulation 1.3 of this Annex."

Regulation 3

Exceptions

2 The title of the regulation is replaced by the following:

"Exceptions and exemptions"

3 A new paragraph 2 is added as follows:

"2 The Administration may exempt an unmanned non-self-propelled (UNSP) barge* from the requirements of regulations 4.1 and 5.1 of this Annex, by an International Sewage Pollution Prevention Exemption Certificate for Unmanned Non-self-propelled (UNSP) Barges, for a period not exceeding 5 years provided that the barge has undergone a survey to confirm that the conditions referred to in regulations 1.16.1 to 1.16.4 of this Annex are met."

* Refer to the *Guidelines for exemption of unmanned non-self-propelled barges from the survey and certification requirements under the MARPOL Convention* (MEPC.1/Circ.892).

Regulation 6

Issue of endorsement of a Certificate by another Government

4 Paragraph 4 is replaced by the following:

"4 No International Sewage Pollution Prevention Certificate or UNSP Exemption Certificate shall be issued to a ship which is entitled to fly the flag of a State which is not a Party."

Regulation 7

Form of Certificate

5 The existing paragraph is numbered as paragraph 1 and the reference to "appendix" is replaced by "appendix 1".

6 A new paragraph 2 is added as follows:

"2 The International Sewage Pollution Prevention Exemption Certificate for Unmanned Non-self-propelled (UNSP) Barges shall be drawn up in the form corresponding to the model given in appendix II to this Annex and shall be at least in English, French or Spanish. If an official language of the issuing country is also used, this shall prevail in the event of a dispute or discrepancy."

Appendices

7 The existing appendix is numbered as appendix I and a new appendix II is added as follows:

"APPENDIX II

Form of Exemption Certificate for UNSP Barges

**INTERNATIONAL SEWAGE POLLUTION PREVENTION EXEMPTION CERTIFICATE FOR
UNMANNED NON-SELF-PROPELLED (UNSP) BARGES**

Issued under the provisions of the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978, as amended, relating thereto (hereinafter referred to as "the Convention") under the authority of the Government of:

.....
(full designation of the country)

by
(full designation of the competent person or organization
authorized under the provisions of the Convention)

Particulars of ship*

Name of ship
Distinctive number or letters
Port of registry
Gross tonnage

THIS IS TO CERTIFY:

1 That the unmanned non-self-propelled (UNSP) barge has been surveyed in accordance with regulation 3.2 of Annex IV to the Convention;

2 That the survey shows that the unmanned non-self-propelled (UNSP) barge:

- .1 is not propelled by mechanical means;
- .2 has neither persons nor living animals on board;
- .3 is not used for holding sewage during transport; and
- .4 has no arrangements that could produce sewage as defined in regulation 1.3 of Annex IV to the Convention; and

3 That the UNSP barge is exempted, under regulation 3.2 of Annex IV to the Convention, from the certification and related survey requirements of regulations 4.1 and 5.1 of Annex IV to the Convention.

This certificate is valid until (dd/mm/yyyy).....

subject to the exemption conditions being maintained.

Completion date of the survey on which this certificate is based (dd/mm/yyyy).....

Issued at
(place of issue of certificate)

* Alternatively, the particulars of the ship may be placed horizontally in boxes.

.....
(date of issue) (dd/mm/yyyy):

.....
(signature of duly authorized
official issuing the certificate)

(seal or stamp of the authority, as appropriate)"

ANNEX 4**RESOLUTION MEPC.331(76)
(adopted on 17 June 2021)****AMENDMENTS TO THE INTERNATIONAL CONVENTION ON THE
CONTROL OF HARMFUL ANTI-FOULING SYSTEMS ON SHIPS, 2001****Amendments to Annexes 1 and 4****(Controls on cybutryne and form of the International Anti-fouling System Certificate)**

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 conferred upon it by international conventions for the prevention and control of marine pollution from ships,

RECALLING ALSO article 16 of the International Convention on the Control of Harmful Anti-fouling Systems on Ships, 2001 (the AFS Convention), which specifies the amendment procedure and confers upon the Marine Environment Protection Committee of the Organization the function of considering amendments thereto for adoption by the Parties,

HAVING CONSIDERED, at its seventy-sixth session, proposed amendments to the AFS Convention regarding controls on cybutryne and the form of the International Anti-fouling System Certificate,

1 ADOPTS, in accordance with article 16(2)(c) of the AFS Convention, amendments to Annexes 1 and 4, the text of which is set out in the annex to the present resolution;

2 DETERMINES, in accordance with article 16(2)(e)(ii) of the AFS Convention, that the amendments shall be deemed to have been accepted on 1 July 2022 unless prior to that date more than one third of the Parties have notified the Secretary-General that they object to the amendments;

3 INVITES the Parties to note that, in accordance with articles 16(2)(f)(ii) and (iii) of the AFS Convention, the said amendments shall enter into force on 1 January 2023 upon their acceptance in accordance with paragraph 2 above;

4 INVITES ALSO the Parties to remind ships that fly their flag and that are confirmed to be affected by the amendments to Annex 1 to the AFS Convention adopted through the present resolution to make a timely request for a survey for the issuance of an International Anti-fouling System Certificate, in the amended model form adopted through the present resolution, using the procedure outlined in paragraphs 4 and 5.3 of the annex to resolution MEPC.195(61), as may be amended by the Organization, so that ships have a valid International Anti-fouling System Certificate on board not later than 24 months after the entry into force of the amendments to Annex 1 to the AFS Convention adopted through the present resolution;

5 INVITES FURTHER the Parties to issue new International Anti-fouling System Certificates, in the amended model form adopted through the present resolution, at the next anti-fouling system application, in the case of ships that are confirmed not to be affected by the amendments to Annex 1 to the AFS Convention adopted through the present resolution;

6 REQUESTS the Secretary-General, for the purposes of article 16(2)(d) of the AFS Convention, to transmit certified copies of the present resolution and the text of the amendments contained in the annex to all Parties to the AFS Convention;

7 REQUESTS ALSO the Secretary-General to transmit copies of the present resolution and its annex to Members of the Organization which are not Parties to the AFS Convention;

8 REQUESTS FURTHER the Secretary-General to prepare a consolidated certified text of the AFS Convention.

ANNEX

**AMENDMENTS TO THE INTERNATIONAL CONVENTION ON THE
CONTROL OF HARMFUL ANTI-FOULING SYSTEMS ON SHIPS, 2001**

**Annex 1
Controls on anti-fouling systems**

1 The following rows are added to the table in Annex 1 to the 2001 AFS Convention:
"

| Anti-fouling system | Control measures | Application | Effective date |
|---------------------------------|---|---|--|
| Cybutryne CAS No. 28159-98-0 | Ships shall not apply or re-apply anti-fouling systems containing this substance | All ships | 1 January 2023 |
| Cybutryne CAS No. 28159-98-0 | Ships bearing an anti-fouling system that contains this substance in the external coating layer of their hulls or external parts or surfaces on 1 January 2023 shall either: (1) remove the anti-fouling system; or (2) apply a coating that forms a barrier to this substance leaching from the underlying non-compliant anti-fouling system | All ships except: (1) fixed and floating platforms, FSUs, and FPSOs that have been constructed prior to 1 January 2023 and that have not been in dry-dock on or after 1 January 2023; (2) ships not engaged in international voyages; and (3) ships of less than 400 gross tonnage engaged in international voyages, if accepted by the coastal State(s) | At the next scheduled renewal of the anti-fouling system after 1 January 2023, but no later than 60 months following the last application to the ship of an anti-fouling system containing cybutryne |

"

Annex 4

Surveys and certification requirements for anti-fouling systems

2 Regulation 2(3) is replaced by the following:

"(3) For ships bearing an anti-fouling system controlled under Annex 1 that was applied before the date of entry into force of a control for such a system, the Administration shall issue a Certificate in accordance with paragraphs (1) and (2) of this regulation not later than two years after entry into force of that control. This paragraph shall not affect any requirement for ships to comply with Annex 1."

Appendix 1 to Annex 4

Model form of International Anti-fouling System Certificate

3 The section of the model form of the International Anti-fouling System Certificate (appendix 1) listing the compliance options for controlled anti-fouling systems on the ship is replaced by the following:

"An anti-fouling system controlled under Annex 1 containing:

| | Has not been applied during or after construction of this ship | Has been applied on this ship previously, but has been removed by | Has been applied on this ship previously, but has been covered with a sealer coat applied by | Has been applied on this ship previously, but is not in the external coating layer of the hull or external parts or surfaces on | Was applied on this ship prior to |
|---|--|---|---|---|--|
| Organotin compounds which act as biocides | <input type="checkbox"/> | (insert name of the facility) on (dd/mm/yyyy) <input type="checkbox"/> | (insert name of the facility) on (dd/mm/yyyy) <input type="checkbox"/> | Not applicable | Not applicable |
| Cybutryne | <input type="checkbox"/> | (insert name of the facility) on (dd/mm/yyyy) <input type="checkbox"/> | (insert name of the facility) on (dd/mm/yyyy) <input type="checkbox"/> | 1 January 2023 <input type="checkbox"/> | 1 January 2023, but must be removed or covered with a sealer coat prior to (dd/mm/yyyy) <input type="checkbox"/> |

"

ANNEX 5

**RESOLUTION MEPC.332(76)
(adopted on 17 June 2021)**

**AMENDMENTS 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 BY RESOLUTION MEPC.322(74))**

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 international conventions for the prevention and control of marine pollution from ships,

RECALLING ALSO that, at its sixty-second session, it adopted, by resolution MEPC.203(62), *Amendments to the annex of the Protocol of 1997 to amend the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto* (inclusion of regulations on energy efficiency for ships in MARPOL Annex VI),

NOTING that the aforementioned amendments to MARPOL Annex VI entered into force on 1 January 2013,

NOTING ALSO that regulation 22 (Attained Energy Efficiency Design Index (attained EEDI)) of MARPOL Annex VI, as amended, requires that the EEDI shall be calculated taking into account the guidelines developed by the Organization,

NOTING FURTHER the *2012 Guidelines on the method of calculation of the attained Energy Efficiency Design Index (EEDI) for new ships*, adopted at its sixty-third session by resolution MEPC.212(63), superseded by the *2014 Guidelines on the method of calculation of the attained Energy Efficiency Design Index (EEDI) for new ships* (resolution MEPC.245(66)), which were subsequently superseded by the *2018 Guidelines on the method of calculation of the attained Energy Efficiency Design Index (EEDI) for new ships* (resolution MEPC.308(73)),

NOTING that, at its seventy-fourth session, it adopted, by resolution MEPC.322(74), *Amendments to the 2018 Guidelines on the method of calculation of the attained Energy Efficiency Design Index (EEDI) for new ships*,

HAVING CONSIDERED, at its seventy-sixth session, proposed amendments 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 by resolution MEPC.322(74)),

1 ADOPTS amendments 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 by resolution MEPC.322(74)), as set out in the annex to the present resolution;

2 INVITES Administrations to take into account the aforementioned amendments when developing and enacting national laws which give force to, and implement provisions set forth in regulation 20 of MARPOL Annex VI, as amended;

3 REQUESTS the Parties to MARPOL Annex VI and other Member Governments to bring the amendments to the attention of shipowners, ship operators, shipbuilders, ship designers and any other interested parties;

4 AGREES to keep these Guidelines, as amended, under review, in light of experience gained with their implementation.

ANNEX

**AMENDMENTS TO THE 2018 GUIDELINES ON THE METHOD OF CALCULATION OF
THE ATTAINED ENERGY EFFICIENCY DESIGN INDEX (EEDI) FOR NEW SHIPS**

1 A new section 3 is added, as follows:

"3 Mandatory Reporting of Attained EEDI Values and Related Information

3.1 In accordance with regulation 22.3 of MARPOL Annex VI, for each ship subject to regulation 24, the Administration or any organization duly authorized by it shall report the required and attained EEDI values and relevant information taking into account these Guidelines via electronic communication.

3.2 Information to be reported are as follows:

- .1 applicable EEDI phase (e.g. Phase 1, Phase 2, etc.);
- .2 identification number (IMO Secretariat use only);
- .3 ship type;
- .4 common commercial size reference* (see Note (3) in appendix 5 to these Guidelines), if available;
- .5 DWT or GT (as appropriate);
- .6 year of delivery;
- .7 required EEDI value;
- .8 attained EEDI value;
- .9 dimensional parameters (length L_{pp} (m), breadth B_s (m), and draught (m));
- .10 V_{ref} (knots) and P_{ME} (kW);
- .11 use of innovative technologies (4th and 5th terms in the EEDI equation, if applicable);
- .12 short statement* describing the principal design elements or changes employed to achieve the attained EEDI (as appropriate), if available;
- .13 type of fuel used in the calculation of the attained EEDI, and for dual-fuel engines, the f_{DFgas} ratio; and
- .14 ice class designation (if applicable).

* Not subject to verification.

- 3.3 The information in paragraph 3.2 is not required to be reported for ships for which the required and attained EEDI values had been already reported to the Organization.
 - 3.4 A standardized reporting format for Mandatory Reporting of Attained EEDI Values and Related Information is presented in appendix 5."
- 2 A new appendix 5 is added, as follows:

"APPENDIX 5

STANDARD FORMAT TO SUBMIT EEDI INFORMATION TO BE INCLUDED IN THE EEDI DATABASE

| IMO Number (1) | Type of ship (2) | Common commercial size (3) | Capacity (4) | | Dimensional parameters | | | Year of delivery | Applicable phase | Required EEDI | Attained EEDI | Vref (knot) (9) | PME (kW) (10) | Type of fuel (11) | fof gas (12) | Ice class (13) | EEDI 4th term (Installation of innovative electrical technology) | | EEDI 5th term (Installation of innovative mechanical technology) | | Short statement as appropriate describing the principal design elements or changes employed to achieve the attained EEDI (15) |
|-------------------|---------------------|-------------------------------|-----------------|-----------|------------------------|---------------|--------------------|------------------|------------------|---------------|---------------|--------------------|------------------|----------------------|-----------------|-------------------|---|--|---|--|--|
| | | | DWT (5) | GT (6) | Lpp (m) (7) | Bs (m) (8) | Draught (m) (9) | | | | | | | | | | Yes/ No | Name, outline and means/ways of performance of technology (14) | Yes/ No | Name, outline and means/ways of performance of technology (14) | |
| | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | |

Note:

- (1) IMO number to be submitted for Secretariat use only.
- (2) As defined in regulation 2 of MARPOL Annex VI.
- (3) Common commercial size reference (TEU for containership, CEU (RT43) for ro-ro cargo ship (vehicle carrier), cubic meter for gas carrier and LNG carrier), if available, should be provided.
- (4) The exact DWT or GT, as appropriate, should be provided. The Secretariat should round the DWT or GT data up to the nearest 500 when these data are subsequently provided to MEPC. (For containerships, 100% DWT should be provided while 70% of DWT should be used when calculating the EEDI value).
- (5) GT should be provided for a cruise passenger ship having non-conventional propulsion as defined in regulations 2.2.11 and 2.2.19, respectively, of MARPOL Annex VI. Both DWT and GT should be provided for a ro-ro cargo ship (vehicle carrier) as defined in regulation 2.2.27 of MARPOL Annex VI.
- (6) As defined in paragraph 2.2.13 of 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). The exact Lpp should be provided. The Secretariat will round the Lpp data up to the nearest 10 when these data are subsequently provided to MEPC.
- (7) As defined in paragraph 2.2.16 of 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). The exact Bs should be provided. The Secretariat will round the Bs data up to the nearest 1 when these data are subsequently provided to MEPC.
- (8) As defined in paragraph 2.2.15 of 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). The exact draught should be provided. The Secretariat will round the draught data up to the nearest 1 when these data are subsequently provided to MEPC.
- (9) As defined in paragraph 2.2.2 of 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). The exact Vref should be provided. The Secretariat will round the Vref data up to the nearest 0.5 when these data are subsequently provided to MEPC.
- (10) As defined in paragraph 2.2.5.1 of 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). The exact PME should be provided. The Secretariat will round the PME data up to the nearest 100 when these data are subsequently provided to MEPC.
- (11) As defined in paragraph 2.2.1 of 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) or other (to be stated). In case of a ship equipped with a dual-fuel engine, type of "primary fuel" should be provided.
- (12) As defined in paragraph 2.2.1 of 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), if applicable.
- (13) Ice class, which was used to calculate correction factors for ice-classed ships as defined in paragraphs 2.2.8.1 and 2.2.11.1 of 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), if applicable, should be provided.
- (14) In the case that the innovative energy efficiency technologies are already included in the *2013 Guidance on treatment of innovative energy efficiency technologies for calculation and verification of the attained EEDI* (MEPC.1/Circ.815), the name of technology should be identified. Otherwise, name, outline and means/ways of performance of the technology should be identified.
- (15) To assist the IMO in assessing relevant design trends, provide a short statement as appropriate, describing the principal design elements or changes employed to achieve the attained EEDI.

ANNEX 6

UNIFIED INTERPRETATION TO REGULATION 2.23 OF MARPOL ANNEX VI

(update to the unified interpretation provided in paragraphs 1.2.3 and 1.2.4 of the annex to MEPC.1/Circ.795/Rev.4)

1 Definition of "new ship"

Regulation 2 *Definitions*

Regulation 2.23 reads as follows:

"*New ship* means a ship:

- .1 for which the building contract is placed on or after 1 January 2013; or
- .2 in the absence of a building contract, the keel of which is laid or which is at a similar stage of construction on or after 1 July 2013; or
- .3 the delivery of which is on or after 1 July 2015."

Interpretation:

1.1 For the application of the definition "new ship" as specified in regulation 2.23 to each phase specified in table 1 of regulation 21, it should be interpreted as follows:

- .1 the date specified in regulation 2.23.1 should be replaced with the start date of each phase;
- .2 the date specified in regulation 2.23.2 should be replaced with the date six months after the start date of each phase; and
- .3 the date specified in regulation 2.23.3 should, for Phase 1, 2 and 3, be replaced with the date 48 months after the start date of each phase.

1.2 With the above interpretations, the required EEDI of each phase is applied to the following new ship which falls into one of the categories defined in regulations 2.25 to 2.31 and to which chapter 4 is applicable:

(.....)

- .3 the required EEDI of Phase 2 is applied to the following new ship:
 - .1 for ship types where Phase 2 ends on 31 March 2022*:
 - .1 the building contract of which is placed in Phase 2, and the delivery is before 1 April 2026; or

* Unified Interpretation is applicable when resolution MEPC.324(75) enters into force on 1 April 2022.

- .2 the building contract of which is placed before Phase 2, and the delivery is on or after 1 January 2024 and before 1 April 2026; or

in the absence of a building contract:

- .3 the keel of which is laid or which is at a similar stage of construction on or after 1 July 2020 and before 1 October 2022, and the delivery is before 1 April 2026; or
- .4 the keel of which is laid or which is at a similar stage of construction before 1 July 2020, and the delivery is on or after 1 January 2024 and before 1 April 2026.

- .2 for ship types where Phase 2 ends on 31 December 2024:

- .1 the building contract of which is placed in Phase 2, and the delivery is before 1 January 2029; or
- .2 the building contract of which is placed before Phase 2, and the delivery is on or after 1 January 2024 and before 1 January 2029; or

in the absence of a building contract:

- .3 the keel of which is laid or which is at a similar stage of construction on or after 1 July 2020 and before 1 July 2025, and the delivery is before 1 January 2029; or
- .4 the keel of which is laid or which is at a similar stage of construction before 1 July 2020, and the delivery is on or after 1 January 2024 and before 1 January 2029.

- .4 the required EEDI of Phase 3 is applied to the following new ship:

- .1 for ship types where Phase 3 commences with 1 April 2022 and onwards:

- .1 the building contract of which is placed in Phase 3; or
- .2 the building contract of which is placed before Phase 3, and the delivery is on or after 1 April 2026; or

in the absence of a building contract:

- .3 the keel of which is laid or which is at a similar stage of construction on or after 1 October 2022; or
- .4 the keel of which is laid or which is at a similar stage of construction before 1 October 2022 and the delivery of which is on or after 1 April 2026.

- .2 for ship types where Phase 3 commences with 1 January 2025 and onwards:

- .1 the building contract of which is placed in Phase 3; or
- .2 the building contract of which is placed before Phase 3, and the delivery is on or after 1 January 2029; or

in the absence of a building contract:

- .3 the keel of which is laid or which is at a similar stage of construction on or after 1 July 2025; or
- .4 the keel of which is laid or which is at a similar stage of construction before 1 July 2025 and the delivery of which is on or after 1 January 2029.

(.....)

ANNEX 7

**RESOLUTION MEPC.333(76)
(adopted on 17 June 2021)**

**2021 GUIDELINES ON THE METHOD OF CALCULATION OF THE ATTAINED
ENERGY EFFICIENCY EXISTING SHIP INDEX (EEXI)**

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 conferred upon it by international conventions for the prevention and control of marine pollution from ships,

NOTING that it adopted, by resolution MEPC.328(76), the 2021 revised MARPOL Annex VI, which is expected to enter into force on 1 November 2022 upon its deemed acceptance on 1 May 2022,

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

NOTING FURTHER that regulation 23 of MARPOL Annex VI requires that the attained EEXI shall be calculated taking into account the guidelines developed by the Organization,

RECOGNIZING that the aforementioned amendments to MARPOL Annex VI require relevant guidelines for uniform and effective implementation of the regulations and to provide sufficient lead time for industry to prepare,

HAVING CONSIDERED, at its seventy-sixth session, draft *2021 Guidelines on the method of calculation of the attained Energy Efficiency Existing Ship Index (EEXI)*,

1 ADOPTS the *2021 Guidelines on the method of calculation of the attained Energy Efficiency Existing Ship Index (EEXI)*, as set out in the annex to the present resolution;

2 INVITES Administrations to take the annexed Guidelines into account when developing and enacting national laws which give force to and implement requirements set forth in regulation 23 of MARPOL Annex VI;

3 REQUESTS the Parties to MARPOL Annex VI and other Member Governments to bring the annexed Guidelines to the attention of masters, seafarers, shipowners, ship operators and any other interested parties;

4 AGREES to keep the Guidelines under review in light of experience gained with their implementation and in light of the review of EEXI regulations to be completed by the Organization by 1 January 2026 as identified in regulation 25.3 of MARPOL Annex VI.

ANNEX

2021 GUIDELINES ON THE METHOD OF CALCULATION OF THE ATTAINED ENERGY EFFICIENCY EXISTING SHIP INDEX (EEXI)

CONTENTS

- 1 Definitions
- 2 Energy Efficiency Existing Ship Index (EEXI)
 - 2.1 EEXI formula
 - 2.2 Parameters
 - 2.2.1 $P_{ME(i)}$; Power of main engines
 - 2.2.2 $P_{AE(i)}$; Power of auxiliary engines
 - 2.2.3 V_{ref} ; Ship speed
 - 2.2.4 SFC ; Certified specific fuel consumption
 - 2.2.5 C_F ; Conversion factor between fuel consumption and CO₂ emission
 - 2.2.6 Correction factor for ro-ro cargo and ro-ro passenger ships (f_{jRoRo})
 - 2.2.7 Correction factor for ro-ro cargo ships (vehicle carrier) ($f_{cVEHICLE}$)

APPENDIX Parameters to calculate $V_{ref,app}$

1 Definitions

1.1 *MARPOL* means the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocols of 1978 and 1997 relating thereto, as amended.

1.2 For the purpose of these Guidelines, the definitions in MARPOL Annex VI, as amended, apply.

2 Energy Efficiency Existing Ship Index (EEXI)

2.1 EEXI formula

The attained Energy Efficiency Existing Ship Index (EEXI) is a measure of ship's energy efficiency (g/t*nm) and calculated by the following formula:

$$\frac{\left(\prod_{j=1}^n f_j \right) \left(\sum_{i=1}^{nME} P_{ME(i)} \cdot C_{FME(i)} \cdot SFC_{ME(i)} \right) + (P_{AE} \cdot C_{FAE} \cdot SFC_{AE}^*) + \left(\left(\prod_{j=1}^n f_j \right) \cdot \sum_{i=1}^{nPTI} P_{PTI(i)} - \sum_{i=1}^{neff} f_{eff(i)} \cdot P_{AEeff(i)} \right) C_{FAE} \cdot SFC_{AE} - \left(\sum_{i=1}^{neff} f_{eff(i)} \cdot P_{eff(i)} \cdot C_{FME} \cdot SFC_{ME}^{**} \right)}{f_i \cdot f_c \cdot f_l \cdot Capacity \cdot f_w \cdot V_{ref} \cdot f_m}$$

* If part of the Normal Maximum Sea Load is provided by shaft generators, SFC_{ME} and C_{FME} may – for that part of the power – be used instead of SFC_{AE} and C_{FAE}

** In case of $P_{PTI(i)} > 0$, the average weighted value of $(SFC_{ME} \cdot C_{FME})$ and $(SFC_{AE} \cdot C_{FAE})$ to be used for calculation of P_{eff}

Note: This formula may not be applicable to a ship having diesel-electric propulsion, turbine propulsion or hybrid propulsion system, except for cruise passenger ships and LNG carriers.

Ships falling into the scope of EEDI requirement can use their attained EEDI calculated in accordance with the *2018 Guidelines on the method of calculation of the attained EEDI for new ships* (resolution MEPC.308(73), as amended, the "EEDI Calculation Guidelines" hereafter) as the attained EEXI if the value of the attained EEDI is equal to or less than that of the required EEXI.

2.2 Parameters

For calculation of the attained EEXI by the formula in paragraph 2.1, parameters under the EEDI Calculation Guidelines apply, unless expressly provided otherwise. In referring to the aforementioned guidelines, the terminology "EEDI" should be read as "EEXI".

2.2.1 $P_{ME(i)}$; Power of main engines

In cases where overridable Shaft / Engine Power Limitation is installed in accordance with the *2021 Guidelines on the shaft / engine power limit to comply with the EEXI requirements and use of a power reserve* (resolution MEPC.335(76)), $P_{ME(i)}$ is 83% of the limited installed power (MCR_{lim}) or 75% of the original installed power (MCR), whichever is lower, for each main engine (i). In cases where the overridable Shaft / Engine Power Limitation and shaft generator(s) are installed, in referring to paragraph 2.2.5.2 (option 1) of the EEDI Calculation Guidelines, " MCR_{ME} " should be read as " MCR_{lim} ".

For LNG carriers having steam turbine or diesel electric propulsion, $P_{ME(i)}$ is 83% of the limited installed power (MCR_{lim} , MPP_{lim}), divided by the electrical efficiency in case of diesel electric propulsion system, for each main engine (i). For LNG carriers, the power from combustion of

the excessive natural boil-off gas in the engines or boilers to avoid releasing to the atmosphere or unnecessary thermal oxidation should be deducted from $P_{ME(i)}$ with the approval of the verifier.

2.2.2 $P_{AE(i)}$; Power of auxiliary engines

2.2.2.1 $P_{AE(i)}$ is calculated in accordance with paragraph 2.2.5.6 of the EEDI Calculation Guidelines.

2.2.2.2 For ships where power of auxiliary engines (P_{AE}) value calculated by paragraphs 2.2.5.6.1 to 2.2.5.6.3 of the EEDI Calculation Guidelines is significantly different from the total power used at normal seagoing, e.g. in cases of passenger ships, the P_{AE} value should be estimated by the consumed electric power (excluding propulsion) in conditions when the ship is engaged in a voyage at reference speed (V_{ref}) as given in the electric power table, divided by the average efficiency of the generator(s) weighted by power (see appendix 2 of the EEDI Calculation Guidelines).

2.2.2.3 In cases where the electric power table is not available, the P_{AE} value may be approximated either by:

- .1 annual average figure of P_{AE} at sea from onboard monitoring obtained prior to the EEXI certification;
- .2 for cruise passenger ships, approximated value of power of auxiliary engines ($P_{AE,app}$), as defined below:

$$P_{AE,app} = 0.1193 \times GT + 1814.4 \quad [\text{kW}]$$

- .3 for ro-ro passenger ships, approximated value of power of auxiliary engines ($P_{AE,app}$), as defined below:

$$P_{AE,app} = 0.866 \times GT^{0.732} \quad [\text{kW}]$$

2.2.3 V_{ref} ; Ship speed

2.2.3.1 For ships falling into the scope of the EEDI requirement, the ship speed V_{ref} should be obtained from an approved speed-power curve as defined in the *2014 Guidelines on survey and certification of the Energy Efficiency Design Index (EEDI)*, as amended (resolution MEPC.254(67), as amended).

2.2.3.2 For ships not falling into the scope of the EEDI requirement, the ship speed V_{ref} should be obtained from an estimated speed-power curve as defined in the *2021 Guidelines on survey and certification of the attained EEXI* (resolution MEPC.334(76)).

2.2.3.3 For ships not falling into the scope of the EEDI requirement but whose sea trial results, which may have been calibrated by the tank test, under the EEDI draught and the sea condition as specified in paragraph 2.2.2 of the EEDI Calculation Guidelines are included in the sea trial report, the ship speed V_{ref} may be obtained from the sea trial report:

$$V_{ref} = V_{S,EEDI} \times \left[\frac{P_{ME}}{P_{S,EEDI}} \right]^{\frac{1}{3}} \quad [\text{knot}]$$

where,

$V_{S,EEDI}$ is the sea trial service speed under the EEDI draught; and

$P_{S,EEDI}$ is power of the main engine corresponding to $V_{S,EEDI}$.

2.2.3.4 For containerhips, bulk carriers or tankers not falling into the scope of the EEDI requirement but whose sea trial results, which may have been calibrated by the tank test, under the design load draught and sea condition as specified in paragraph 2.2.2 of the EEDI Calculation Guidelines are included in the sea trial report, the ship speed V_{ref} may be obtained from the sea trial report:

$$V_{ref} = k^{\frac{1}{3}} \times \left(\frac{DWT_{S,service}}{Capacity} \right)^{\frac{2}{9}} \times V_{S,service} \times \left[\frac{P_{ME}}{P_{S,service}} \right]^{\frac{1}{3}} \quad [\text{knot}]$$

where,

$V_{S,service}$ is the sea trial service speed under the design load draught;

$DWT_{S,service}$ is the deadweight under the design load draught;

$P_{S,service}$ is the power of the main engine corresponding to $V_{S,service}$;

k is the scale coefficient, which should be:

- .1 0.95 for containerhips with 120,000 DWT or less;
- .2 0.93 for containerhips with more than 120,000 DWT;
- .3 0.97 for bulk carrier with 200,000 DWT or less;
- .4 1.00 for bulk carrier with more than 200,000 DWT;
- .5 0.97 for tanker with 100,000 DWT or less; and
- .6 1.00 for tanker with more than 100,000 DWT.

2.2.3.5 In cases where the speed-power curve is not available or the sea trial report does not contain the EEDI or design load draught condition, the ship speed V_{ref} can be approximated by $V_{ref,app}$ to be obtained from statistical mean of distribution of ship speed and engine power, as defined below:

$$V_{ref,app} = (V_{ref,avg} - m_V) \times \left[\frac{\sum P_{ME}}{0.75 \times MCR_{avg}} \right]^{\frac{1}{3}} \quad [\text{knot}]$$

For LNG carriers having diesel electric propulsion system and cruise passenger ship having non-conventional propulsion,

$$V_{ref,app} = (V_{ref,avg} - m_V) \times \left[\frac{\sum MPP_{Motor}}{MPP_{avg}} \right]^{\frac{1}{3}} \quad [\text{knot}]$$

where,

$V_{ref,avg}$ is a statistical mean of distribution of ship speed in given ship type and ship size, to be calculated as follows:

$$V_{ref,avg} = A \times B^C$$

where

A, B and C are the parameters given in the appendix;

m_V is a performance margin of a ship, which should be 5% of $V_{ref,avg}$ or one knot, whichever is lower; and

MCR_{avg} is a statistical mean of distribution of MCRs for main engines and MPP_{avg} is a statistical mean of distribution of MPPs for motors in given ship type and ship size, to be calculated as follows:

$$MCR_{avg} \text{ or } MPP_{avg} = D \times E^F$$

where

D, E and F are the parameters given in the appendix;

In cases where the overridable Shaft / Engine Power Limitation is installed, the ship speed V_{ref} approximated by $V_{ref,app}$ should be calculated as follows:

$$V_{ref,app} = (V_{ref,avg} - m_V) \times \left[\frac{\sum P_{ME}}{0.75 \times MCR_{avg}} \right]^{\frac{1}{3}} \quad [\text{knot}]$$

For LNG carriers having diesel electric propulsion system and cruise passenger ship having non-conventional propulsion, the ship speed V_{ref} approximated by $V_{ref,app}$ should be calculated as follows:

$$V_{ref,app} = (V_{ref,avg} - m_V) \times \left[\frac{\sum MPP_{lim}}{MPP_{avg}} \right]^{\frac{1}{3}}$$

2.2.3.6 Notwithstanding the above, in cases where the energy saving device* is installed, the effect of the device may be reflected in the ship speed V_{ref} with the approval of the verifier, based on the following methods in accordance with defined quality and technical standards:

- .1 sea trials after installation of the device; and/or
- .2 dedicated model tests; and/or
- .3 numerical calculations.

*

Devices that shift the power curve, which results in the change of P_P and V_{ref} , as specified in MEPC.1/Circ.815 on 2013 *Guidance on treatment of innovative energy efficiency technologies for calculation and verification of the attained EEDI*.

2.2.4 SFC; Certified specific fuel consumption

In cases where overridable Shaft / Engine Power Limitation is installed, the *SFC* corresponding to the P_{ME} should be interpolated by using *SFCs* listed in an applicable test report included in an approved NO_x Technical File of the main engine as defined in paragraph 1.3.15 of the NO_x Technical Code.

Notwithstanding the above, the *SFC* specified by the manufacturer or confirmed by the verifier may be used.

For those engines which do not have a test report included in the NO_x Technical File and which do not have the *SFC* specified by the manufacturer or confirmed by the verifier, the *SFC* can be approximated by SFC_{app} defined as follows:

$$SFC_{ME,app} = 190 [g/kWh]$$

$$SFC_{AE,app} = 215 [g/kWh]$$

2.2.5 C_F; Conversion factor between fuel consumption and CO₂ emission

For those engines which do not have a test report included in the NO_x Technical File and which do not have the *SFC* specified by the manufacturer, the C_F corresponding to SFC_{app} should be defined as follows:

$$C_F = 3.114 [t \cdot CO_2/t \cdot Fuel] \text{ for diesel ships (incl. HFO use in practice)}$$

Otherwise, paragraph 2.2.1 of the EEDI Calculation Guidelines applies.

2.2.6 Correction factor for ro-ro cargo and ro-ro passenger ships (f_{jRoRo})

For ro-ro cargo and ro-ro passenger ships, f_{jRoRo} is calculated as follows:

$$f_{jRoRo} = \frac{1}{F_{nL}^{\alpha} \cdot \left(\frac{L_{pp}}{B_S}\right)^{\beta} \cdot \left(\frac{B_S}{d_S}\right)^{\gamma} \cdot \left(\frac{L_{pp}}{V^{1/3}}\right)^{\delta}} \quad ; \text{ if } f_{jRoRo} > 1 \text{ then } f_j = 1$$

where the Froude number, F_{nL} , is defined as:

$$F_{nL} = \frac{0.5144 \cdot V_{ref,F}}{\sqrt{L_{pp} \cdot g}}$$

where $V_{ref,F}$ is the ship design speed corresponding to 75% of MCR_{ME} :

and the exponents α , β , γ and δ are defined as follows:

| Ship type | Exponent: | | | |
|----------------------|-----------|---------|----------|----------|
| | α | β | γ | δ |
| Ro-ro cargo ship | 2.00 | 0.50 | 0.75 | 1.00 |
| Ro-ro passenger ship | 2.50 | 0.75 | 0.75 | 1.00 |

2.2.7 Cubic capacity correction factor for ro-ro cargo ships (vehicle carrier) ($f_{cVEHICLE}$)

For ro-ro cargo ships (vehicle carrier) having a DWT/GT ratio of less than 0.35, the following cubic capacity correction factor, $f_{cVEHICLE}$, should apply:

$$f_{cVEHICLE} = \left(\frac{(DWT/GT)}{0.35} \right)^{-0,8}$$

Where DWT is the capacity and GT is the gross tonnage in accordance with the International Convention of Tonnage Measurement of Ships 1969, annex I, regulation 3.

APPENDIX

Parameters to calculate $V_{ref,avg}$

| Ship type | A | B | C |
|--|---------|---|---------|
| Bulk carrier | 10.6585 | DWT of the ship | 0.02706 |
| Gas carrier | 7.4462 | DWT of the ship | 0.07604 |
| Tanker | 8.1358 | DWT of the ship | 0.05383 |
| Containership | 3.2395 | DWT of the ship where DWT ≤ 80,000 80,000 where DWT > 80,000 | 0.18294 |
| General cargo ship | 2.4538 | DWT of the ship | 0.18832 |
| Refrigerated cargo carrier | 1.0600 | DWT of the ship | 0.31518 |
| Combination carrier | 8.1391 | DWT of the ship | 0.05378 |
| LNG carrier | 11.0536 | DWT of the ship | 0.05030 |
| Ro-ro cargo ship (vehicle carrier) | 16.6773 | DWT of the ship | 0.01802 |
| Ro-ro cargo ship | 8.0793 | DWT of the ship | 0.09123 |
| Ro-ro passenger ship | 4.1140 | DWT of the ship | 0.19863 |
| Cruise passenger ship having non-conventional propulsion | 5.1240 | GT of the ship | 0.12714 |

Parameters to calculate MCR_{avg} or MPP_{avg} (= D x E^F)

| Ship type | D | E | F |
|--|----------|---|---------|
| Bulk carrier | 23.7510 | DWT of the ship | 0.54087 |
| Gas carrier | 21.4704 | DWT of the ship | 0.59522 |
| Tanker | 22.8415 | DWT of the ship | 0.55826 |
| Containership | 0.5042 | DWT of the ship where DWT ≤ 95,000 95,000 where DWT > 95,000 | 1.03046 |
| General cargo ship | 0.8816 | DWT of the ship | 0.92050 |
| Refrigerated cargo carrier | 0.0272 | DWT of the ship | 1.38634 |
| Combination carrier | 22.8536 | DWT of the ship | 0.55820 |
| LNG carrier | 20.7096 | DWT of the ship | 0.63477 |
| Ro-ro cargo ship (vehicle carrier) | 262.7693 | DWT of the ship | 0.39973 |
| Ro-ro cargo ship | 37.7708 | DWT of the ship | 0.63450 |
| Ro-ro passenger ship | 9.1338 | DWT of the ship | 0.91116 |
| Cruise passenger ship having non-conventional propulsion | 1.3550 | GT of the ship | 0.88664 |

Calculation of parameters to calculate $V_{ref,avg}$ and MCR_{avg}

Data sources

1 IHS Fairplay (IHSF) database with the following conditions are used.

| Ship type | Ship size | Delivered period | Type of propulsion systems | Population |
|--|-------------------|---|--------------------------------|------------|
| Bulk carrier | $\geq 10,000$ DWT | From 1 January 1999 to 1 January 2009 | Conventional | 2,433 |
| Gas carrier | $\geq 2,000$ DWT | | Conventional | 292 |
| Tanker | $\geq 4,000$ DWT | | Conventional | 3,345 |
| Containership | $\geq 10,000$ DWT | | Conventional | 2,185 |
| General cargo ship | $\geq 3,000$ DWT | | Conventional | 1,673 |
| Refrigerated cargo carrier | $\geq 3,000$ DWT | | Conventional | 53 |
| Combination carrier | $\geq 4,000$ DWT | | Conventional | 3,351 |
| LNG carrier | $\geq 10,000$ DWT | | Conventional, Non-conventional | 185 |
| Ro-ro cargo ship (vehicle carrier) | $\geq 10,000$ DWT | From 1 January 1998 to 31 December 2010 | Conventional | 301 |
| Ro-ro cargo ship | $\geq 1,000$ DWT | | Conventional | 188 |
| Ro-ro passenger ship | ≥ 250 DWT | | Conventional | 350 |
| Cruise passenger ship having non-conventional propulsion | $\geq 25,000$ GT | From 1 January 1999 to 1 January 2009 | Non-conventional | 93 |

2 Data sets with blank/zero "Service speed", "Capacity" and/or Total kW of M/E" are removed.

3 Ship type is in accordance with table 1 and table 2 of resolution MEPC.231(65) on 2013 *Guidelines for calculation of reference lines for use with the Energy Efficiency Design Index (EEDI)*. However, "Gas carrier" does not include "LNG carrier". Parameters for "LNG carrier" are given separately.

ANNEX 8

**RESOLUTION MEPC.334(76)
(adopted on 17 June 2021)**

**2021 GUIDELINES ON SURVEY AND CERTIFICATION OF THE ATTAINED ENERGY
EFFICIENCY EXISTING SHIP INDEX (EEXI)**

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 conferred upon it by international conventions for the prevention and control of marine pollution from ships,

NOTING that it adopted, by resolution MEPC.328(76), the 2021 revised MARPOL Annex VI, which is expected to enter into force on 1 November 2022 upon its deemed acceptance on 1 May 2022,

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

NOTING FURTHER that regulation 5 (Surveys) of MARPOL Annex VI, as amended, requires that ships to which chapter 4 applies shall also be subject to survey and certification taking into account guidelines developed by the Organization,

RECOGNIZING that the aforementioned amendments to MARPOL Annex VI require relevant guidelines for uniform and effective implementation of the regulations and to provide sufficient lead time for industry to prepare,

HAVING CONSIDERED, at its seventy-sixth session, draft *2021 Guidelines on survey and certification of the Energy Efficiency Existing Ship Index (EEXI)*,

1 ADOPTS the *2021 Guidelines on survey and certification of the Energy Efficiency Existing Ship Index (EEXI)*, as set out in the annex to the present resolution;

2 INVITES Administrations to take the annexed Guidelines into account when developing and enacting national laws which give force to and implement requirements set forth in regulation 5 of MARPOL Annex VI;

3 REQUESTS the Parties to MARPOL Annex VI and other Member Governments to bring the annexed Guidelines to the attention of masters, seafarers, shipowners, ship operators and any other interested parties;

4 AGREES to keep the Guidelines under review in light of experience gained with their implementation and in light of the review of EEXI regulations to be completed by the Organization by 1 January 2026 as identified in regulation 25.3 of MARPOL Annex VI.

ANNEX

**2021 GUIDELINES ON SURVEY AND CERTIFICATION OF THE ATTAINED ENERGY
EFFICIENCY EXISTING SHIP INDEX (EEXI)**

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1 GENERAL

The purpose of these guidelines is to assist verifiers of the Energy Efficiency Existing Ship Index (EEXI) of ships in conducting the survey and certification of the EEXI, in accordance with regulations 5, 6, 7, 8 and 9 of MARPOL Annex VI, and assist shipowners, shipbuilders, manufacturers and other interested parties in understanding the procedures for the survey and certification of the EEXI.

2 DEFINITIONS¹

2.1 *Verifier* means an Administration, or organization duly authorized by it, which conducts the survey and certification of the EEXI in accordance with regulations 5, 6, 7, 8 and 9 of MARPOL Annex VI and these Guidelines.

2.2 *Ship of the same type* means a ship the hull form (expressed in the lines such as sheer plan and body plan), excluding additional hull features such as fins, and principal particulars of which are identical to that of the base ship.

2.3 *Tank test* means model towing tests, model self-propulsion tests and model propeller open water tests. Numerical calculations may be accepted as equivalent to model propeller open water tests or used to complement the tank tests conducted (e.g. to evaluate the effect of additional hull features such as fins, etc. on ships' performance), or as a replacement for model tests provided that the methodology and numerical model used have been validated/calibrated against parent hull sea trials and/or model tests, with the approval of the verifier.

2.4 *MARPOL* means the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocols of 1978 and 1997 relating thereto, as amended.

2.5 For the purpose of these Guidelines, the definitions in MARPOL Annex VI, as amended, apply.

3 APPLICATION

These Guidelines should be applied to ships for which an application for a survey for verification of the ship's EEXI specified in regulation 5 of MARPOL Annex VI has been submitted to a verifier.

4 PROCEDURES FOR SURVEY AND CERTIFICATION

4.1 General

4.1.1 The attained EEXI should be calculated in accordance with regulation 23 of MARPOL Annex VI and the *2021 Guidelines on the method of calculation of the attained Energy Efficiency Existing Ship Index (EEXI)* (resolution MEPC.333(76)) (EEXI Calculation Guidelines).

4.1.2 The 2013 Guidance on treatment of innovative energy efficiency technologies for calculation and verification of the attained EEDI (MEPC.1/Circ.815) should be applied for calculation of the attained EEXI, if applicable.

¹ Other terms used in these Guidelines have the same meaning as those defined in the *2018 Guidelines on the method of calculation of the attained EEDI for new ships* (resolution MEPC.308(73), as amended) and the *2021 Guidelines on the method of calculation of the attained EEXI* (resolution MEPC.333(76)).

4.1.3 The information used in the verification process may contain confidential information of submitters, including shipyards, which requires Intellectual Property Rights (IPR) protection. In the case where the submitter wants a non-disclosure agreement with the verifier, the additional information should be provided to the verifier upon mutually agreed terms and conditions.

4.2 Verification of the attained EEXI

4.2.1 For verification of the attained EEXI, an application for a survey and an EEXI Technical File containing the necessary information for the verification and other relevant background documents should be submitted to a verifier, unless the attained EEDI of the ship satisfies the required EEXI.

4.2.2 The EEXI Technical File should be written at least in English. The EEXI Technical File should include, but not be limited to:

- .1 deadweight (DWT) or gross tonnage (GT) for ro-ro passenger ship and cruise passenger ship having non-conventional propulsion;
- .2 the rated installed power (MCR) of the main and auxiliary engines;
- .3 the limited installed power (MCR_{lim}) in cases where the overridable Shaft / Engine Power Limitation system is installed;
- .4 the ship speed (V_{ref});
- .5 the approximate ship speed ($V_{ref,app}$) for pre-EEDI ships in cases where the speed-power curve is not available, as specified in paragraph 2.2.3.5 of the EEXI Calculation Guidelines;
- .6 an approved speed-power curve under the EEDI condition as specified in paragraph 2.2 of the EEDI Calculation Guidelines, which is described in the EEDI Technical File, in cases where regulation 22 of MARPOL Annex VI (Attained EEDI) is applied;
- .7 an estimated speed-power curve under the EEDI condition, or under a different load draught to be calibrated to the EEDI condition, obtained from tank test and/or numerical calculations, if available;
- .8 estimation process and methodology of the power curves, as necessary, including documentation on consistency with the defined quality standards (e.g. ITTC 7.5-03-01-02 and ITTC 7.5-03-01-04 in their latest revisions) and the verification of the numerical set-up with parent hull or the reference set of comparable ships in case of using numerical calculations;
- .9 a sea trial report including sea trial results, which may have been calibrated by the tank test, under the sea condition as specified in paragraph 2.2.2 of the EEDI Calculation Guidelines, if available;
- .10 calculation process of $V_{ref,app}$ for pre-EEDI ships in cases where the speed-power curve is not available, as specified in paragraph 2.2.3.5 of the EEXI Calculation Guidelines;
- .11 type of fuel;

- .12 the specific fuel consumption (*SFC*) of the main and auxiliary engines, as specified in paragraph 2.2.3 of the EEXI Calculation Guidelines;
- .13 the electric power table² for certain ship types, as necessary, as defined in the EEDI Calculation Guidelines;
- .14 the documented record of annual average figure of the auxiliary engine load at sea obtained prior to the date of application for a survey for verification of the ship's EEXI, as specified in paragraph 2.2.2.3 of the EEXI Calculation Guidelines, if applicable;
- .15 calculation process of $P_{AE,app}$, as specified in paragraph 2.2.2.3 of the EEXI Calculation Guidelines, if applicable;
- .16 principal particulars, ship type and the relevant information to classify the ship as such a ship type, classification notations and an overview of the propulsion system and electricity supply system on board;
- .17 description of energy saving equipment, if available;
- .18 calculated value of the attained EEXI, including the calculation summary, which should contain, at a minimum, each value of the calculation parameters and the calculation process used to determine the attained EEXI; and
- .19 for LNG carriers:
 - .1 type and outline of propulsion systems (such as direct drive diesel, diesel electric, steam turbine);
 - .2 LNG cargo tank capacity in m³ and BOR as defined in paragraph 2.2.5.6.3 of the EEDI Calculation Guidelines;
 - .3 shaft power of the propeller shaft after transmission gear at 100% of the rated output of motor (MPP_{Motor}) and $\eta_{(i)}$ for diesel electric;
 - .4 shaft power of the propeller shaft after transmission gear at the de-rated output of motor ($MPP_{Motor,lim}$) in cases where the overridable Shaft / Engine Power Limitation is installed;
 - .5 maximum continuous rated power ($MCR_{SteamTurbine}$) for steam turbine;
 - .6 limited maximum continuous rated power ($MCR_{SteamTurbine,lim}$) for steam turbine in cases where the overridable Shaft / Engine Power Limitation is installed; and
 - .7 $SFC_{SteamTurbine}$ for steam turbine, as specified in paragraph 2.2.7.2 of the EEDI Calculation Guidelines. If the calculation is not available from the manufacturer, $SFC_{SteamTurbine}$ may be calculated by the submitter.

A sample of an EEXI Technical File is provided in the appendix.

² Electric power tables should be validated separately, taking into account the guidelines set out in appendix 2 of the 2014 *Guidelines on survey and certification of the Energy Efficiency Design Index (EEDI)* (resolution MEPC.254(67), as amended by resolutions MEPC.261(68) and MEPC.309(73)); consolidated text: MEPC.1/Circ.855/Rev.2, as may be further amended).

4.2.3 The *SFC* should be corrected to the value corresponding to the ISO standard reference conditions using the standard lower calorific value of the fuel oil, referring to ISO 15550:2002 and ISO 3046-1:2002. For the confirmation of the *SFC*, a copy of the approved NO_x Technical File and documented summary of the correction calculations should be submitted to the verifier.

4.2.4 For ships equipped with dual-fuel engine(s) using LNG and fuel oil, the *C_F*-factor for gas (LNG) and the specific fuel consumption (*SFC*) of gas fuel should be used by applying the criteria specified in paragraph 4.2.3 of the *2014 Guidelines on survey and certification of the Energy Efficiency Design Index (EEDI)*, as amended,³ as a basis for the guidance of the Administration.

4.2.5 Notwithstanding paragraphs 4.2.3 and 4.2.4, in cases where overridable Shaft / Engine Power Limitation is installed, or in cases where engines do not have a test report included in the NO_x Technical File, *SFC* should be calculated in accordance with paragraph 2.2.3 of the EEXI Calculation Guidelines. For this purpose, actual performance records of the engine may be used if satisfactory and acceptable to the verifier.

4.2.6 The verifier may request further information from the submitter, as specified in paragraph 4.2.7 of the EEDI Survey and Certification Guidelines, in addition to that contained in the EEXI Technical File, as necessary, to examine the calculation process of the attained EEXI.

4.2.7 In cases where the sea trial report as specified in paragraph 4.2.2.9 is submitted, the verifier should request further information from the submitter to confirm that:

- .1 the sea trial was conducted in accordance with the conditions specified in paragraphs 4.3.3, 4.3.4 and 4.3.7 of the EEDI Survey and Certification Guidelines, as applicable;
- .2 sea conditions were measured in accordance with ISO 15016:2002 or the equivalent if satisfactory and acceptable to the verifier;
- .3 ship speed was measured in accordance with ISO 15016:2002 or the equivalent if satisfactory and acceptable to the verifier; and
- .4 the measured ship speed was calibrated, if necessary, by taking into account the effects of wind, tide, waves, shallow water and displacement in accordance with ISO 15016:2002 or the equivalent which may be acceptable provided that the concept of the method is transparent for the verifier and publicly available/accessible.

4.2.8 The estimated speed-power curve obtained from the tank test and/or numerical calculations and/or the sea trial results calibrated by the tank test should be reviewed on the basis of the relevant documents in accordance with the EEDI Survey and Certification Guidelines, the defined quality standards (e.g. ITTC 7.5-03-01-02 and ITTC 7.5-03-01-04 in their latest revisions) and the verification of the numerical set-up with parent hull or the reference set of comparable ships.

4.2.9 In cases where the overridable Shaft / Engine Power Limitation system is installed, the verifier should confirm that the system is appropriately installed and sealed in accordance with the *2021 Guidelines on the Shaft / Engine Power Limitation system to comply with the EEXI requirements and use of a power reserve* (resolution MEPC.335(76)) and that a verified Onboard Management Manual (OMM) for overridable Shaft / Engine Power Limitation is on board the ship.

³ Resolution MEPC.254(67), as amended.

4.3 Verification of the attained EEXI in case of major conversion

4.3.1 In cases of a major conversion of a ship taking place at or after the completion date of the survey for EEXI verification specified in regulation 5.4.7 of MARPOL Annex VI, the shipowner should submit to a verifier an application for a general or partial survey with the EEXI Technical File duly revised, based on the conversion made and other relevant background documents.

4.3.2 The background documents should include as a minimum, but are not limited to:

- .1 details of the conversion;
- .2 EEXI parameters changed after the conversion and the technical justifications for each respective parameter;
- .3 reasons for other changes made in the EEXI Technical File, if any; and
- .4 calculated value of the attained EEXI with the calculation summary, which should contain, as a minimum, each value of the calculation parameters and the calculation process used to determine the attained EEXI after the conversion.

4.3.3 The verifier should review the revised EEXI Technical File and other documents submitted and verify the calculation process of the attained EEXI to ensure that it is technically sound and reasonable and follows regulation 23 of MARPOL Annex VI and the EEXI Calculation Guidelines.

4.3.4 For verification of the attained EEXI after the major conversion, speed trials of the ship may be conducted, as necessary.

APPENDIX

SAMPLE OF EEXI TECHNICAL FILE

1 Data

1.1 General information

| | |
|-------------|--------------------------|
| Shipowner | XXX Shipping Line |
| Shipbuilder | XXX Shipbuilding Company |
| Hull no. | 12345 |
| IMO no. | 94112XX |
| Ship type | Bulk carrier |

1.2 Principal particulars

| | |
|--|--------------|
| Length overall | 250.0 m |
| Length between perpendiculars | 240.0 m |
| Breadth, moulded | 40.0 m |
| Depth, moulded | 20.0 m |
| Summer load line draught, moulded | 14.0 m |
| Deadweight at summer load line draught | 150,000 tons |

1.3 Main engine

| | |
|---|--------------------|
| Manufacturer | XXX Industries |
| Type | 6J70A |
| Maximum continuous rating (MCR_{ME}) | 15,000 kW x 80 rpm |
| Limited maximum continuous rating with the Engine Power Limitation installed ($MCR_{ME,lim}$) | 9,940 kW x 70 rpm |
| SFC at 75% of MCR_{ME} or 83% of $MCR_{ME,lim}$ | 166.5 g/kWh |
| Number of sets | 1 |
| Fuel type | Diesel Oil |

1.4 Auxiliary engine

| | |
|--|------------------|
| Manufacturer | XXX Industries |
| Type | 5J-200 |
| Maximum continuous rating (MCR_{AE}) | 600 kW x 900 rpm |
| SFC at 50% MCR_{AE} | 220.0 g/kWh |
| Number of sets | 3 |
| Fuel type | Diesel Oil |

1.5 Ship speed

| | |
|---|-------------|
| Ship speed (V_{ref}) (with the Engine Power Limitation installed) | 13.20 knots |
|---|-------------|

2 Power curve

(Example 1; case of the EEDI ship)

An approved speed-power curve contained in the EEDI Technical File is shown in figure 2.1.

(Example 2; case of the pre-EEDI ship)

An estimated speed-power curve obtained from the tank test and/or numerical calculations, if available, is also shown in figure 2.1.

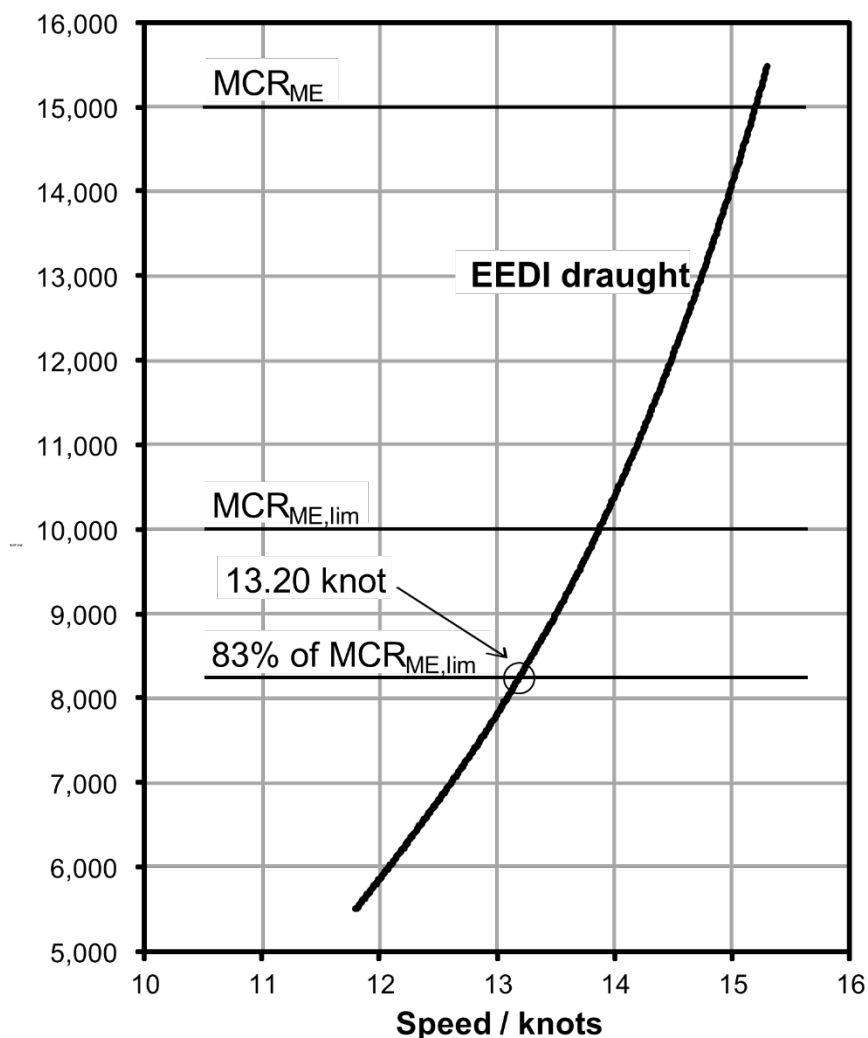


Figure 2.1: Power curve

(Example 3; case of the pre-EEDI ship with sea trial result calibrated to a different load draught)

An estimated speed-power curve under a ballast draught calibrated to the design load draught, obtained from the tank test and/or numerical calculations, if available, is shown in figure 2.2.

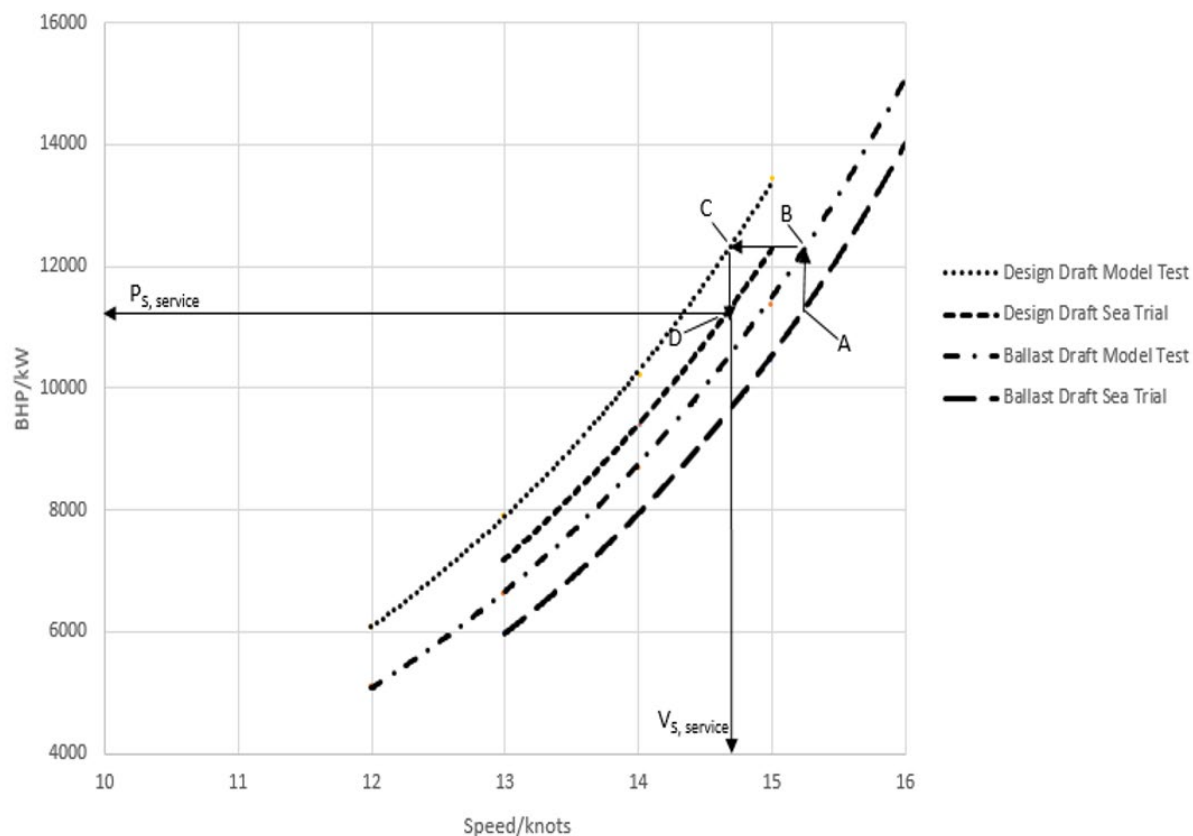


Figure 2.2: Power curve

3 Overview of propulsion system and electric power supply system

3.1 Propulsion system

3.1.1 Main engine

Refer to paragraph 1.3 of this appendix.

3.1.2 Propeller

| | |
|------------------|-----------------------|
| Type | Fixed pitch propeller |
| Diameter | 7.0 m |
| Number of blades | 4 |
| Number of sets | 1 |

3.2 Electric power supply system

3.2.1 Auxiliary engines

Refer to paragraph 1.4 of this appendix.

3.2.2 Main generators

| | |
|----------------|----------------------------|
| Manufacturer | XXX Electric |
| Rated output | 560 kW (700 kVA) x 900 rpm |
| Voltage | AC 450 V |
| Number of sets | 3 |

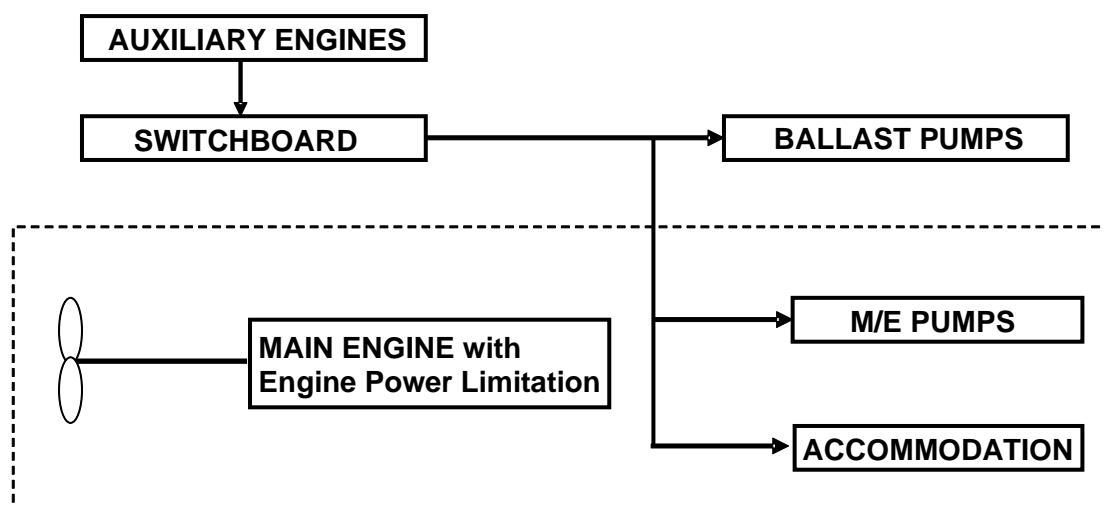


Figure 3.1: Schematic figure of propulsion and electric power supply system

4 Estimation process of speed-power curve

(Example; case of pre-EEDI ship)

Speed-power curve is estimated based on model test results and/or numerical calculations, if available. The flow of the estimation processes is shown below.

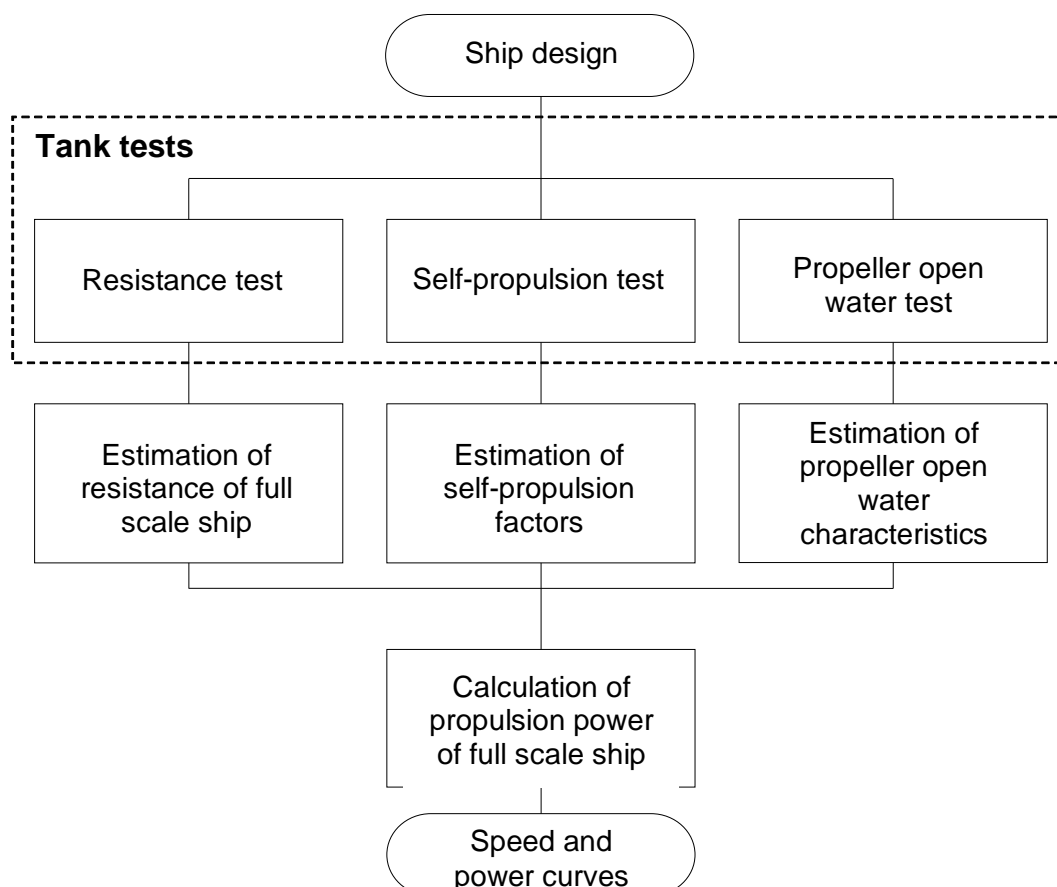


Figure 4: Flow chart of process for estimating speed-power curve from tank tests

5 Description of energy saving equipment

5.1 Energy saving equipment the effects of which are expressed as $P_{AEff(i)}$ and/or $P_{eff(i)}$ in the EEXI calculation formula

N/A

5.2 Other energy saving equipment

(Example)

5.2.1 Rudder fins

5.2.2 Rudder bulb

.....

(Specifications, schematic figures and/or photos, etc. for each piece of equipment or device should be indicated. Alternatively, attachment of a commercial catalogue may be acceptable.)

6 Calculated value of attained EEXI

6.1 Basic data

| Type of ship | Capacity DWT | Speed V_{ref} (knots) |
|--------------|--------------|----------------------------|
| Bulk carrier | 150,000 | 13.20 |

6.2 Main engine

| MCR_{ME} (kW) | $MCR_{ME,lim}$ (kW) | P_{ME} (kW) | Type of fuel | C_{FME} | SFC_{ME} (g/kWh) |
|--------------------|------------------------|------------------|--------------|-----------|-----------------------|
| 15,000 | 9,940 | 8,250 | Diesel oil | 3.206 | 166.5 |

6.3 Auxiliary engines

| P_{AE} (kW) | Type of fuel | C_{FAE} | SFC_{AE} (g/kWh) |
|------------------|--------------|-----------|-----------------------|
| 625 | Diesel oil | 3.206 | 220.0 |

6.4 Ice class

N/A

6.5 Innovative electrical energy-efficient technology

N/A

6.6 Innovative mechanical energy-efficient technology

N/A

6.7 Cubic capacity correction factor

N/A

6.8 Calculated value of attained EEXI

$$\begin{aligned}
 EEXI &= \frac{(\prod_{j=1}^M f_j)(\sum_{i=1}^{n_{ME}} P_{ME(i)} \cdot C_{FME(i)} \cdot SFC_{ME(i)}) + (P_{AE} \cdot C_{FAE} \cdot SFC_{AE})}{f_i \cdot f_c \cdot f_l \cdot Capacity \cdot f_w \cdot V_{ref} \cdot f_m} \\
 &+ \frac{\{(\prod_{j=1}^M f_j \cdot \sum_{i=1}^{n_{PTI}} P_{PTI(i)} - \sum_{i=1}^{n_{eff}} f_{eff(i)} \cdot P_{AE_{eff(i)}}) \cdot C_{FAE} \cdot SFC_{AE}\}}{f_i \cdot f_c \cdot f_l \cdot Capacity \cdot f_w \cdot V_{ref} \cdot f_m} \\
 &- \frac{(\sum_{i=1}^{n_{eff}} f_{eff(i)} \cdot P_{eff(i)} \cdot C_{FME} \cdot SFC_{ME})}{f_i \cdot f_c \cdot f_l \cdot Capacity \cdot f_w \cdot V_{ref} \cdot f_m} \\
 &= \frac{1 \times (8250 \times 3.206 \times 166.5) + (625 \times 3.206 \times 220.0) + 0 - 0}{1 \times 1 \times 1 \times 150000 \times 1 \times 13.20 \times 1} \\
 &= 2.45 \text{ (g - CO}_2\text{/ton} \cdot \text{mile)}
 \end{aligned}$$

attained EEXI: 2.45 g-CO₂/ton mile

ANNEX 9

**RESOLUTION MEPC.335(76)
(adopted on 17 June 2021)**

**2021 GUIDELINES ON THE SHAFT / ENGINE POWER LIMITATION SYSTEM TO
COMPLY WITH THE EEXI REQUIREMENTS AND USE OF A POWER RESERVE**

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 conferred upon it by international conventions for the prevention and control of marine pollution from ships,

NOTING that it adopted, by resolution MEPC.328(76), the 2021 revised MARPOL Annex VI, which is expected to enter into force on 1 November 2022 upon its deemed acceptance on 1 May 2022,

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

NOTING FURTHER that ships may be equipped with a Shaft / Engine Power Limitation system in order to comply with regulation 25 (Required EEXI),

RECOGNIZING that the aforementioned amendments to MARPOL Annex VI require relevant guidelines for uniform and effective implementation of the regulations and to provide sufficient lead time for industry to prepare,

HAVING CONSIDERED, at its seventy-sixth session, draft *2021 Guidelines on the shaft / engine power limitation system to comply with the EEXI requirements and use of a power reserve*,

1 ADOPTS the *2021 Guidelines on the shaft / engine power limitation system to comply with the EEXI requirements and use of a power reserve*, as set out in the annex to the present resolution;

2 INVITES Administrations to take the annexed Guidelines into account when developing and enacting national laws which give force to and implement requirements set forth in regulations 23 and 25 of MARPOL Annex VI;

3 REQUESTS the Parties to MARPOL Annex VI and other Member Governments to bring the annexed Guidelines to the attention of masters, seafarers, shipowners, ship operators and any other interested parties;

4 AGREES to keep the Guidelines under review in light of experience gained with their implementation and in light of the review of EEXI regulations to be completed by the Organization by 1 January 2026 as identified in regulation 25.3 of MARPOL Annex VI;

5 NOTES that the Guidelines may be consolidated with possible future guidelines on the shaft / engine power limitation system under the EEDI framework as appropriate upon consideration by the Committee, taking into account circumstances and technical limitation of existing ships.

ANNEX

**2021 GUIDELINES ON THE SHAFT / ENGINE POWER LIMITATION SYSTEM TO
COMPLY WITH THE EEXI REQUIREMENTS AND USE OF A POWER RESERVE**

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0 General

The purpose of these Guidelines is to provide technical and operational conditions that the SHaPoLi / EPL system should satisfy in complying with the EEXI requirements and in using a power reserve for existing ships. However, noting that guidelines on the SHaPoLi / EPL system under EEDI framework on new ships are currently considered at the Committee, these guidelines under EEXI and EEDI may be consolidated into one set of guidelines as appropriate upon consideration by the Committee, taking into account circumstances and technical limitation of existing ships.

1 Definitions

1.1 *Shaft power* means the mechanical power transmitted by the propeller shaft to the propeller hub. It is the product of the shaft torque and the shaft rotational speed. In case of multiple propeller shafts, the shaft power means the sum of the power transmitted to all propeller shafts.

1.2 *Engine power* means the mechanical power transmitted from the engine to the propeller shaft. In case of multiple engines, the engine power means the sum of the power transmitted from the engines to the propeller shafts.

1.3 *Overridable Shaft Power Limitation (SHaPoLi) system* means a verified and approved system for the limitation of the maximum shaft power by technical means that can only be overridden by the ship's master or the officer in charge of navigational watch (OICNW) for the purpose of securing the safety of a ship or saving life at sea. (See figure 1 for an illustration of engine load diagram.)

1.4 *Overridable Engine Power Limitation (EPL) system* means a verified and approved system for the limitation of the maximum engine power by technical means that can only be overridden by the ship's master or OICNW for the purpose of securing the safety of a ship or saving life at sea. (See figure 1 for an illustration of engine load diagram.)

1.5 *Power reserve* means shaft / engine power above the limited power which cannot be used in normal operation unless in the case when SHaPoLi / EPL is unlimited for the purpose of securing the ship safety.

1.6 *MARPOL* means the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocols of 1978 and 1997 relating thereto, as amended.

1.7 For the purpose of these Guidelines, the definitions in MARPOL Annex VI, as amended, apply.

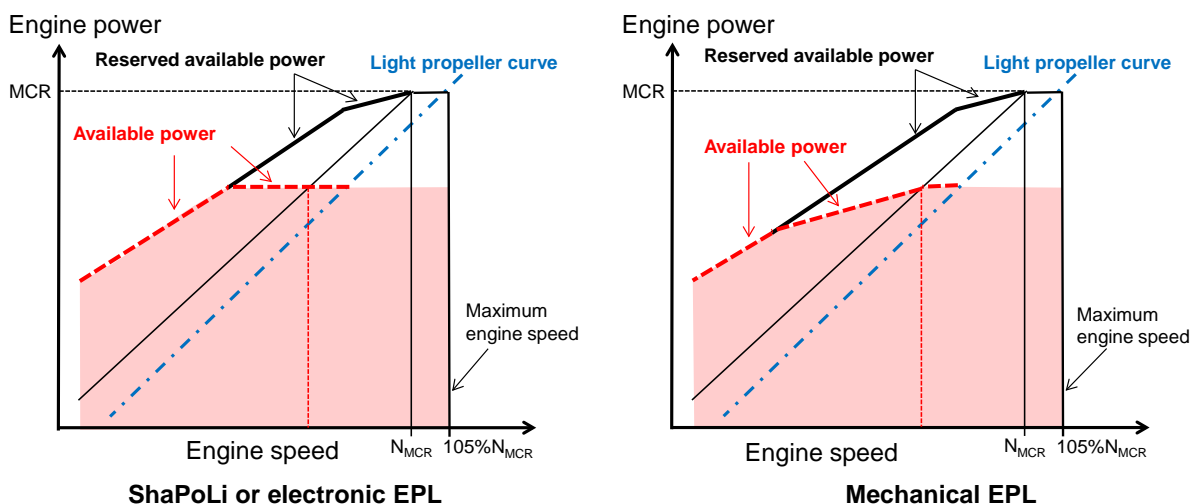


Figure 1: Engine load diagram on Shaft/Engine Power Limitation

2 Technical requirements for the SHaPoLi / EPL system

2.1 Required main systems

The SHaPoLi / EPL system should consist of the following main arrangements:

.1 SHaPoLi:

- .1 sensors for measuring the torque and rotational speed delivered to the propeller(s) of the ship. The system includes the amplifier and the analogue to the digital converter;
- .2 a data recording and processing device for tracking and calculation of the data as given in paragraph 2.2.5.1 of these Guidelines; and
- .3 a control unit for calculation and limitation of the power transmitted by the shaft to the propeller(s);

.2 EPL:

- .1 for the mechanically controlled engine, a sealing device which can physically lock the fuel index by using a mechanical stop screw sealed by wire or an equivalent device with governor limit setting so that the ship's crew cannot release the EPL without permission from the ship's master or OICNW, as shown in figure 2; or
- .2 for the electronically controlled engine, fuel index limiter which can electronically lock the fuel index or direct limitation of the power in the engine's control system so that the ship's crew cannot release the EPL without permission from the ship's master or OICNW; and
- .3 where technically possible and feasible, the Sha/PoLi/EPL system should be controlled from the ships' bridge and not require attendance in the machinery space by ship's personnel.

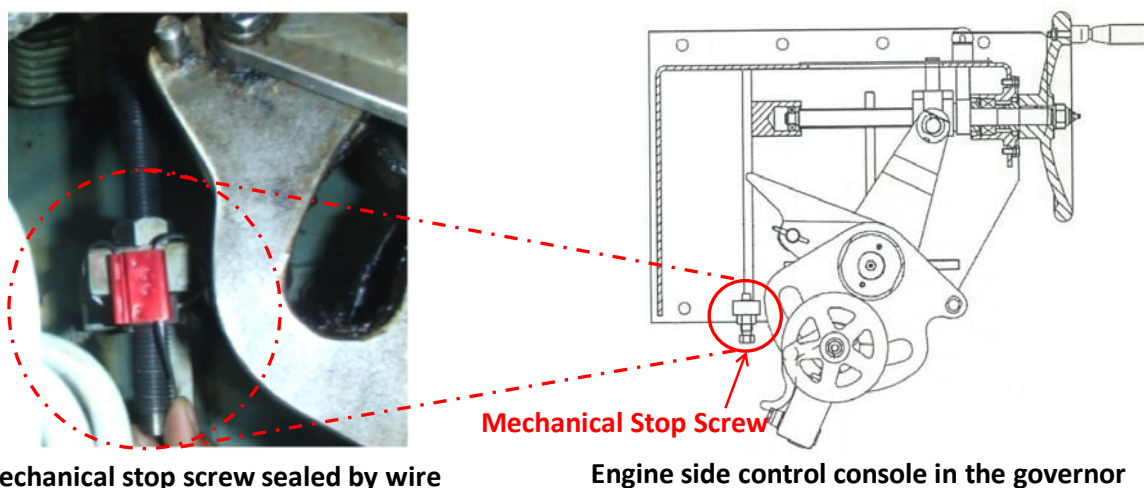


Figure 2: Sealing of mechanical stop screw

2.2 General system requirements

2.2.1 The SHaPoLi / EPL system should be non-permanent but should require the deliberate action of the ship's master or OICNW to enable the use of unlimited shaft / engine power (power reserve) of the ship. For systems that use a Password/PIN to control access to the power reserve override, attention should be paid to ensure that the necessary Password/PIN is always available when override is required.

2.2.2 For SHaPoLi / EPL system for the electronically controlled engine, the control unit should inform the ship's master or OICNW clearly and conspicuously when the ship's shaft / engine power exceeds the limited shaft / engine power as stated in the Onboard Management Manual (OMM) for SHaPoLi / EPL or in any case of system malfunction.

2.2.3 For EPL for the mechanically controlled engine, the sealing device should either:

- .1 visibly indicate removal of the sealing when the ship's engine power exceeds the limited engine power as stated in the OMM for EPL or in any case of system malfunction; or
- .2 be equipped with other systems such as an alert-monitoring system which can indicate when the ship's engine power exceeds the limited engine power as stated in the OMM for EPL or in any case of system malfunction and recording the use of unlimited mode, verified by the Administration or the RO.

2.2.4 The SHaPoLi / EPL system (or each subsystem) should be tamper-proof.

2.2.5 The SHaPoLi / EPL system for the electronically controlled engine should indicate the following data during operation:

- .1 for SHaPoLi, shaft rotational speed, shaft torque and shaft power (and total shaft power in case of multiple shaft arrangements) to be recorded constantly in unlimiting mode; or
- .2 for EPL, a fuel index sealing system or power limitation system which can indicate and record the use of unlimited mode.

2.2.6 The procedure for SHaPoLi / EPL depends on the propulsion system and should be described in the OMM for SHaPoLi / EPL in accordance with section 4 of these Guidelines.

3 Use of a power reserve by un-limiting the shaft / engine power limitation

3.1 The use of a power reserve is only allowed for the purpose of securing the safety of a ship or saving life at sea, consistent with regulation 3.1 of MARPOL Annex VI (e.g. operating in adverse weather and ice-infested waters, participation in search and rescue operations, avoidance of pirates and engine maintenance). Use of a power reserve should not have adverse impact on the propeller, shaft and related systems. It is important that the ship master and OICNW are not restricted from exercising judgement to override the SHaPoLi / EPL when required for safety purposes. The authority for this should be clearly set out in the OMM and/or the Safety Management System manual, as appropriate.

3.2 Any use of a power reserve should be recorded in the record page of the OMM for SHaPoLi / EPL, signed by the master and should be kept on board. The record should include:

- .1 ship type;
- .2 IMO number;
- .3 ship size in DWT and/or GT, as applicable;
- .4 ship's limited shaft / engine power and ship's maximum unlimited shaft / engine power;
- .5 position of the ship and timestamp when the power reserve was used;
- .6 reason for using the power reserve;
- .7 Beaufort number and wave height or ice condition in case of using the power reserve under adverse weather condition;
- .8 supporting evidence (e.g. expected weather condition) in case of using the power reserve for avoidance action;
- .9 records from the SHaPoLi / EPL system for the electronically controlled engine during the power reserve was used; and
- .10 position of the ship and timestamp when the power limit was reactivated or replaced.

3.3 Where an EPL/ShaPoLi override is activated but the power reserve is not subsequently used, this event should be recorded in the bridge and engine-room logbooks. The engine-room logbook should record power used during the period when the override was activated. The EPL/ShaPoLi should be reset as soon as possible, and details of the reset should also be recorded in the bridge and engine-room logbooks.

3.4 In case of having used a power reserve, the ship should without delay notify its Administration or RO responsible for issuing the relevant certificate and the competent authority of the relevant port of destination with the information recorded in accordance with paragraph 3.2. On an annual basis, the Administration should report uses of a power reserve to IMO with the information recorded in accordance with paragraph 3.2.

3.5 Once the risks have been mitigated, the ship should be operated below the certified level of engine power under the SHaPoLi / EPL. The SHaPoLi / EPL system should be reactivated or replaced by the crew immediately after the risks have been prevented and the ship can be safely operated with the limited shaft / engine power. The reactivation or replacement of the SHaPoLi / EPL system should be confirmed (e.g. validation of mechanical sealing) with supporting evidence (e.g. engine power log, photo taken at the occasion of resetting the mechanical sealing) by the Administration or the RO at the earliest opportunity.

3.6 Any defect of the SHaPoLi / EPL system should be reported to the Administration or RO responsible for issuing the relevant certificate in accordance with regulation 5.6 of MARPOL Annex VI.

3.7 The port State control officers should inspect whether the SHaPoLi / EPL system has been properly installed and used in accordance with the IEE Certificate and the OMM as described in section 4 of these Guidelines. If overriding of the SHaPoLi / EPL without proper notification in accordance with paragraph 3.3 of these Guidelines has been detected, the reactivation or replacement of the SHaPoLi / EPL should be immediately conducted in the presence of the Administration or the RO at the port.

4 Onboard Management Manual (OMM) for SHaPoLi / EPL

4.1 The SHaPoLi / EPL system should be accompanied by the OMM for SHaPoLi / EPL that should be permanently on board the ship for inspection.

4.2 The OMM for SHaPoLi / EPL should be verified by the Administration or the RO after a survey verifying the ship's attained EEXI, as required by regulation 5.4 of MARPOL Annex VI.

4.3 The OMM for SHaPoLi / EPL should, as a minimum, include:

.1 SHaPoLi:

- .1 a technical description of the main system as specified in section 2 of these guidelines as well as relevant auxiliary systems;
- .2 identification of key components of the system by manufacturer, model/type, serial number and other details as necessary;
- .3 description of a verification procedure demonstrating that the system is in compliance with the technical description in accordance with items .1 and .2;
- .4 the maximum shaft power for which the unit is designed;
- .5 service, maintenance and calibration requirements of sensors according to sensor manufacturer and a description how to monitor the appropriateness of the calibration intervals, if applicable;
- .6 the SHaPoLi record book for the recording of service, maintenance and calibration of the system;
- .7 the description how the shaft power can be limited and unlimited and how this is displayed by the control unit as required by paragraph 2.2.5 of these Guidelines;

- .8 the description of how the controller limits the power delivered to the propeller shaft;
 - .9 the identification of responsibilities;
 - .10 procedures for notification of the use of power reserve and the detections of malfunctions of the system in accordance with paragraphs 3.4 and 3.5 of these Guidelines;
 - .11 time required for un-limiting the SHaPoLi; and
 - .12 procedures for survey of the SHaPoLi system by the Administration/RO.
- .2 EPL:
- .1 rated installed power (MCR) or motor output (MPP) and engine speed (N_{MCR});
 - .2 limited installed power (MCR_{lim}) or motor output (MPP_{lim}) and engine speed ($N_{MCR,lim}$);
 - .3 technical description of the EPL system;
 - .4 method for sealing the EPL (mechanically controlled engine);
 - .5 method for locking and monitoring the EPL (electronically controlled engine);
 - .6 procedures and methods for releasing the EPL;
 - .7 time required for unlimiting the EPL;
 - .8 procedures for survey of the EPL system by the Administration/RO;
 - .9 procedure for the report on release of the EPL; and
 - .10 administrator of the EPL system.

5 Demonstration of compliance of the SHaPoLi / EPL system

5.1 The demonstration of compliance of the SHaPoLi / EPL system should be verified by an appropriate survey in accordance with regulation 5.4 of MARPOL Annex VI for the verification of the ship's EEXI according to regulation 23. The survey should include the verification and validation of the system by addressing the following items:

- .1 the verification of compliance of the system with the OMM for SHaPoLi / EPL;
- .2 the verification of compliance of the system with the specifications set out in section 2 of these Guidelines; and
- .3 the verification of the OMM for SHaPoLi / EPL that the OMM for SHaPoLi / EPL is in compliance with the specifications set out in section 4 of these Guidelines.

5.2 In cases where the SHaPoLi / EPL system is applied and no changes are made to NO_x critical settings and/or components* outside what is allowed by the engine technical file as defined in the 2008 NO_x Technical Code (NTC 2008), engine re-certification is not needed.

5.3 In cases where the SHaPoLi / EPL system is applied and the NO_x critical settings and/or components are altered beyond what is allowed by the engine technical file as defined in NTC 2008, the engine needs to be re-certified. In such a case, for an EEDI-certified ship where the SHaPoLi / EPL system is applied at a power below that required by regulation 24.5 of MARPOL Annex VI (minimum power requirement), the certified engine power should be at the power satisfying that requirement.

* NO_x critical parameters and components are listed in NO_x Technical File under the section "Components, setting and operating values of the engine which may influence its NO_x emission".

ANNEX 10

**RESOLUTION MEPC.336(76)
(adopted on 17 June 2021)**

**2021 GUIDELINES ON OPERATIONAL CARBON INTENSITY INDICATORS AND THE
CALCULATION METHODS (CII GUIDELINES, G1)**

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 conferred upon it by international conventions for the prevention and control of marine pollution from ships,

NOTING that it adopted, by resolution MEPC.328(76), the 2021 revised MARPOL Annex VI, which is expected to enter into force on 1 November 2022 upon its deemed acceptance on 1 May 2022,

NOTING IN PARTICULAR that the 2021 revised 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 apply to calculate the attained annual operational CII taking into account the guidelines developed by the Organization,

RECOGNIZING that the aforementioned amendments to MARPOL Annex VI require relevant guidelines for uniform and effective implementation of the regulations and to provide sufficient lead time for industry to prepare,

HAVING CONSIDERED, at its seventy-sixth session, draft *2021 Guidelines on operational carbon intensity indicators and the calculation methods (CII Guidelines, G1)*,

1 ADOPTS the *2021 Guidelines on operational carbon intensity indicators and the calculation methods (CII Guidelines, G1)*, as set out in the annex to the present resolution;

2 INVITES Administrations to take the annexed Guidelines into account when developing and enacting national laws which give force to and implement requirements set forth in regulation 28.1 of MARPOL Annex VI;

3 REQUESTS the Parties to MARPOL Annex VI and other Member Governments to bring the annexed Guidelines to the attention of masters, seafarers, shipowners, ship operators and any other interested parties;

4 AGREES to consider substantiated proposals for CII correction factors for certain ship types, operational profiles and/or voyages with a view to enhancing, as appropriate, the annexed Guidelines before entry into force of the aforementioned amendments to MARPOL Annex VI;

5 AGREES to keep the Guidelines under review in light of experience gained with their implementation and in light of the review of CII regulations to be completed by the Organization by 1 January 2026 as identified in regulation 28.11 of MARPOL Annex VI.

ANNEX

2021 GUIDELINES ON OPERATIONAL CARBON INTENSITY INDICATORS AND THE CALCULATION METHODS (CII GUIDELINES, G1)

1 Introduction

1.1 In the *Initial IMO Strategy on Reduction of GHG Emissions from Ships* (Resolution MEPC.304(72)), the level of ambition on carbon intensity of international shipping is quantified by the CO₂ emissions per transport work, as an average across international shipping.

1.2 These Guidelines address the calculation methods and the applicability of the operational carbon intensity indicator (CII) for individual ships to which chapter 4 of MARPOL Annex VI, as amended, applies.

2 Definitions

2.1 *MARPOL* means the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocols of 1978 and 1997 relating thereto, as amended.

2.2 *IMO DCS* means the data collection system for fuel oil consumption of ships referred to in regulation 27 and related provisions of MARPOL Annex VI.

2.3 For the purpose of these Guidelines, the definitions in MARPOL Annex VI, as amended, apply.

2.4 The metrics indicating the average CO₂ emissions per transport work of a ship are generally referred to as operational carbon intensity indicator (CII) in these Guidelines.

.1 A specific CII calculated based on the actual or estimated mass or volume of the shipment carried on board a ship is generally referred to as *demand-based CII*; and

.2 A specific CII, in which calculation the capacity of a ship is taken as proxy of the actual mass or volume of the shipment carried on board, is generally referred to as *supply-based CII*.

2.5 The supply-based CII which uses DWT as the capacity is referred to as *AER*, and the supply-based CII which uses GT as the capacity is referred to as *cgDIST*.

3 Application

3.1 For all ships to which regulation 28 of MARPOL Annex VI applies, the operational carbon intensity indicators defined in section 4 should be applied.

3.2 The operational carbon intensity indicators defined in section 5 are encouraged to be additionally used by ships, where applicable, for trial purposes.

4 Operational carbon intensity indicator (CII) of individual ships for use in implementing regulation 28 of MARPOL Annex VI

In its most simple form, the attained annual operational CII of individual ships is calculated as the ratio of the total mass of CO₂ (M) emitted to the total transport work (W) undertaken in a given calendar year, as follows:

$$\text{attained } CII_{\text{ship}} = M / W \quad (1)$$

4.1 Mass of CO₂ emissions (M)

The total mass of CO₂ is the sum of CO₂ emissions (in grams) from all the fuel oil consumed on board a ship in a given calendar year, as follows:

$$M = FC_j \times C_{F_j} \quad (2)$$

where:

- j is the fuel oil type;
- FC_j is the total mass (in grams) of consumed fuel oil of type j in the calendar year, as reported under IMO DCS; and
- C_{F_j} represents the fuel oil mass to CO₂ mass conversion factor for fuel oil type j , in line with those specified 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 may be further amended. In case the type of the fuel oil is not covered by the guidelines, the conversion factor should be obtained from the fuel oil supplier supported by documentary evidence.

4.2 Transport work (W)

In the absence of the data on actual transport work, the supply-based transport work (W_s) can be taken as a proxy, which is defined as the product of a ship's capacity and the distance travelled in a given calendar year, as follows:

$$W_s = C \times D_t \quad (3)$$

where:

- C represents the ship's capacity:
 - For bulk carriers, tankers, container ships, gas carriers, LNG carriers, ro-ro cargo ships, general cargo ships, refrigerated cargo carrier and combination carriers, deadweight tonnage (DWT)¹ should be used as Capacity;
 - For cruise passenger ships, ro-ro cargo ships (vehicle carriers) and ro-ro passenger ships, gross tonnage (GT)² should be used as Capacity; and
- D_t represents the total distance travelled (in nautical miles), as reported under IMO DCS.

¹ Deadweight tonnage (DWT) means the difference in tonnes between the displacement of a ship in water of relative density of 1,025 kg/m³ at the summer load draught and the lightweight of the ship. The summer load draught should be taken as the maximum summer draught as certified in the stability booklet approved by the Administration or any organization recognized by it.

² Gross tonnage (GT) should be calculated in accordance with the International Convention on Tonnage Measurement of Ships, 1969.

5 Operational carbon intensity indicator (CII) of individual ships for trial purpose

The following metrics are encouraged to be used for trial purposes, where applicable:

- .1 Energy Efficiency Performance Indicator (EEPI)

$$EEPI = \frac{M}{C \times D_l}$$

- .2 cbDIST

$$cbDIST = \frac{M}{ALB \times D_t}$$

- .3 clDIST

$$clDIST = \frac{M}{Lanemeter \times D_t}$$

- .4 EEOI, as defined in MEPC.1/Circ.684 on *Guidelines for voluntary use of the ship energy efficiency operational indicator (EEOI)*.

In the formulas above:

- the mass of CO₂ (M), the ship's capacity (C) and the total distance travelled (D_t) are identical with those used to calculate the attained CII of individual ships, as specified in section 4.1 and 4.2;
- D_l means the laden distance travelled (in nautical miles) when the ship is loaded;
- ALB means the number of available lower berths of a cruise passenger ship; and
- $Lanemeter$ means the length (in metres) of the lanes of a ro-ro ship.

ANNEX 11

**RESOLUTION MEPC.337(76)
(adopted on 17 June 2021)**

**2021 GUIDELINES ON THE REFERENCE LINES FOR USE WITH OPERATIONAL
CARBON INTENSITY INDICATORS (CII REFERENCE LINES GUIDELINES, G2)**

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 conferred upon it by international conventions for the prevention and control of marine pollution from ships,

NOTING that it adopted, by resolution MEPC.328(76), the 2021 revised MARPOL Annex VI, which is expected to enter into force on 1 November 2022 upon its deemed acceptance on 1 May 2022,

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

NOTING FURTHER that regulation 28.4 of MARPOL Annex VI requires reference lines to be established for each ship type to which regulation 28 is applicable,

HAVING CONSIDERED, at its seventy-sixth session, draft *2021 Guidelines on the reference lines for use with operational carbon intensity indicators (CII reference lines guidelines, G2)*,

1 ADOPTS the *2021 Guidelines on the reference lines for use with operational carbon intensity indicators (CII reference lines guidelines, G2)*, as set out in the annex to the present resolution;

2 INVITES Administrations to take the annexed Guidelines into account when developing and enacting national laws which give force to and implement requirements set forth in regulation 28.4 of MARPOL Annex VI;

3 REQUESTS the Parties to MARPOL Annex VI and other Member Governments to bring the annexed Guidelines to the attention of masters, seafarers, shipowners, ship operators and any other interested parties;

4 AGREES to keep the Guidelines under review in light of experience gained with their implementation and in light of the review of CII regulations to be completed by the Organization by 1 January 2026 as identified in regulation 28.11 of MARPOL Annex VI.

ANNEX

2021 GUIDELINES ON THE REFERENCE LINES FOR USE WITH OPERATIONAL CARBON INTENSITY INDICATORS (CII REFERENCE LINES GUIDELINES, G2)

1 Introduction

1.1 These Guidelines provide the methods to calculate the reference lines for use with operational carbon intensity indicators, and the ship type specific carbon intensity reference lines as referred to in regulation 28 of MARPOL Annex VI.

1.2 One reference line is developed for each ship type to which regulation 28 of MARPOL Annex VI applies, based on the specific indicators stipulated in *2021 Guidelines on operational carbon intensity indicators and the calculation methods* (G1) developed by the Organization, ensuring that only data from comparable ships are included in the calculation of each reference line.

2 Definition

2.1 *MARPOL* means the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocols of 1978 and 1997 relating thereto, as amended.

2.2 *IMO DCS* means the data collection system for fuel oil consumption of ships referred to in regulation 27 and related provisions of MARPOL Annex VI.

2.3 For the purpose of these Guidelines, the definitions in MARPOL Annex VI, as amended, apply.

2.4 An operational carbon intensity indicator (CII) reference line is defined as a curve representing the median attained operational carbon intensity performance, as a function of Capacity, of a defined group of ships in year of 2019.

3 Method to develop the CII reference lines

3.1 Given the limited data available for the year of 2008, the operational carbon intensity performance of ship types in year 2019 is taken as the reference.

3.2 For a defined group of ships, the reference line is formulated as follows:

$$CII_{ref} = aCapacity^{-c} \quad (1)$$

where CII_{ref} is the reference value of year 2019, $Capacity$ is identical with the one defined in the specific carbon intensity indicator (CII) for a ship type, as shown in Table. 1; a and c are parameters estimated through median regression fits, taking the attained CII and the Capacity of individual ships collected through IMO DCS in year 2019 as the sample.

4 Ship type specific operational carbon intensity reference lines

The parameters for determining the ship type specific reference lines, for use in Eq.(1), are specified as follows:

Table 1: Parameters for determining the 2019 ship type specific reference lines

| Ship type | | Capacity | <i>a</i> | <i>c</i> |
|------------------------------------|---|----------|----------|----------|
| Bulk carrier | 279,000 DWT and above | 279,000 | 4745 | 0.622 |
| | less than 279,000 DWT | DWT | 4745 | 0.622 |
| Gas carrier | 65,000 and above | DWT | 14405E7 | 2.071 |
| | less than 65,000 DWT | DWT | 8104 | 0.639 |
| Tanker | | DWT | 5247 | 0.610 |
| Container ship | | DWT | 1984 | 0.489 |
| General cargo ship | 20,000 DWT and above | DWT | 31948 | 0.792 |
| | less than 20,000 DWT | DWT | 588 | 0.3885 |
| Refrigerated cargo carrier | | DWT | 4600 | 0.557 |
| Combination carrier | | DWT | 40853 | 0.812 |
| LNG carrier | 100,000 DWT and above | DWT | 9.827 | 0.000 |
| | 65,000 DWT and above, but less than 100,000 DWT | DWT | 14479E10 | 2.673 |
| | less than 65,000 DWT | 65,000 | 14479E10 | 2.673 |
| Ro-ro cargo ship (vehicle carrier) | | GT | 5739 | 0.631 |
| Ro-ro cargo ship | | DWT | 10952 | 0.637 |
| Ro-ro passenger ship | | GT | 7540 | 0.587 |
| Cruise passenger ship | | GT | 930 | 0.383 |

ANNEX 12

**RESOLUTION MEPC.338(76)
(adopted on 17 June 2021)**

**2021 GUIDELINES ON THE OPERATIONAL CARBON INTENSITY REDUCTION
FACTORS RELATIVE TO REFERENCE LINES (CII REDUCTION
FACTORS GUIDELINES, G3)**

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 conferred upon it by international conventions for the prevention and control of marine pollution from ships,

NOTING that it adopted, by resolution MEPC.328(76), the 2021 revised MARPOL Annex VI, which is expected to enter into force on 1 November 2022 upon its deemed acceptance on 1 May 2022,

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

NOTING FURTHER that regulation 28.4 of MARPOL Annex VI requires reduction factors to be established for each ship type to which regulation 28 is applicable,

HAVING CONSIDERED, at its seventy-sixth session, draft *2021 Guidelines on the operational carbon intensity reduction factors relative to reference lines (CII reduction factors guidelines, G3)*,

1 ADOPTS the *2021 Guidelines on the operational carbon intensity reduction factors relative to reference lines (CII reduction factors guidelines, G3)*, as set out in the annex to the present resolution;

2 INVITES Administrations to take the annexed Guidelines into account when developing and enacting national laws which give force to and implement requirements set forth in regulation 28.4 of MARPOL Annex VI;

3 REQUESTS the Parties to MARPOL Annex VI and other Member Governments to bring the annexed Guidelines to the attention of masters, seafarers, shipowners, ship operators and any other interested parties;

4 AGREES to keep the Guidelines under review in light of experience gained with their implementation and in light of the review of CII regulations to be completed by the Organization by 1 January 2026 as identified in regulation 28.11 of MARPOL Annex VI, and that annual reduction rates for the period 2027-2030 will be further strengthened and developed taking into account that review.

ANNEX

2021 GUIDELINES ON THE OPERATIONAL CARBON INTENSITY REDUCTION FACTORS RELATIVE TO REFERENCE LINES (CII REDUCTION FACTORS GUIDELINES, G3)

1 Introduction

1.1 These Guidelines provide the methods to determine the annual operational carbon intensity reduction factors and their concrete values from year 2023 to 2030, as referred to in regulation 28 of MARPOL Annex VI.

1.2 The annual operational carbon intensity reduction factors apply to each ship type to which regulation 28 of MARPOL Annex VI applies, in a transparent and robust manner, based on the specific carbon intensity indicators stipulated in the *2021 Guidelines on operational carbon intensity indicators and the calculation methods (G1)* (resolution MEPC.336(76)) and the reference lines developed in the *2021 Guidelines on the reference lines for use with operational carbon intensity indicators (G2)* (resolution MEPC.337(76)).

1.3 The reduction factors have been set at the levels to ensure that, in combination with other relevant requirements of MARPOL Annex VI, the reduction in CO₂ emissions per transport work by at least 40% by 2030, compared to 2008, can be achieved as an average across international shipping.

1.4 Section 5 of these Guidelines provides background information on rational ranges of reduction factors of ship types in year 2030 using demand-based measurement and supply-based measurement.

1.5 The Organization should continue to monitor development in annual carbon intensity improvement using both demand-based measurement and supply-based measurement in parallel to the annual analysis of the fuel consumption data reported to the IMO DCS.

2 Definitions

2.1 *MARPOL* means the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocols of 1978 and 1997 relating thereto, as amended.

2.2 *IMO DCS* means the data collection system for fuel oil consumption of ships referred to in regulation 27 and related provisions of MARPOL Annex VI.

2.3 For the purpose of these Guidelines, the definitions in MARPOL Annex VI, as amended, apply.

2.4 The annual operational carbon intensity reduction factor, generally denoted as "Z" in regulation 28 of MARPOL Annex VI, is a positive value, stipulating the percentage points of the required annual operational carbon intensity indicator of a ship for a given year lower than the reference value.

3 Method to determine the annual reduction factor of ship types

3.1 Operational carbon intensity of international shipping

Given significant heterogeneity across ship types, the attained annual operational CII of international shipping as a whole is calculated as the ratio of the aggregated mass (in grams) of CO₂ (*aggregated M*) emitted to the aggregated mass (in tonne·nmiles) of transport work (*aggregated W*) undertaken by all individual ships of representative ship types in a given calendar year, as follows:

$$\text{attained } CII_{\text{shipping}} = \text{aggregated } M / \text{aggregated } W \quad (1)$$

In the absence of the data on actual annual transport work of individual ships, the aggregated transport work obtained from other reliable sources, such as UNCTAD, can be taken as approximation. The representative ship types refer to bulk carriers, gas carriers, tankers, container ships, general cargo ships, refrigerated cargo carrier and LNG carriers, as per the *Fourth IMO GHG Study 2020*.

3.2 The achieved carbon intensity reduction in international shipping

For a given year y , the achieved carbon intensity reduction in international shipping relative to the reference year y_{ref} , denoted as $R_{\text{shipping},y}$, can be calculated as follows:

$$R_{\text{shipping},y} = 100\% \times (\text{attained } CII_{\text{shipping},y} - \text{attained } CII_{\text{shipping},y_{ref}}) / \text{attained } CII_{\text{shipping},y_{ref}} \quad (2)$$

where the $\text{attained } CII_{\text{shipping},y}$ and $\text{attained } CII_{\text{shipping},y_{ref}}$ represents the attained annual operational carbon intensity of international shipping in year y and in the reference year y_{ref} , as defined in Eq.(1).

The achieved carbon intensity reduction in international shipping can be alternatively calculated on the carbon intensity performance of ship types. Since CII metrics for different ship types may not be identical, the weighted average of the carbon intensity reduction achieved by ship types can be applied, as follows:

$$R_{\text{shipping},y} = \sum_{\text{type}} f_{\text{type},y} R_{\text{type},y} \quad (3)$$

In Eq(3),

- type represents the ship type;
- $f_{\text{type},y}$ is the weight, which is equal to the proportion of CO₂ emitted by the ship type to the total CO₂ emissions of international shipping in year y ; and
- $R_{\text{type},y}$ represents the carbon intensity reduction achieved by the ship type in year y , calculated as $R_{\text{type},y} = 100\% \times (\text{attained } CII_{\text{type},y} - \text{attained } CII_{\text{type},y_{ref}}) / \text{attained } CII_{\text{type},y_{ref}}$, where the $\text{attained } CII_{\text{type},y}$ and $\text{attained } CII_{\text{type},y_{ref}}$ represents the attained annual operational carbon intensity of the ship type in year y and in the reference year y_{ref} , as defined in Eq.(4), as follows:

$$\text{attained } CII_{\text{type}} = \sum_{\text{ship}} M_{\text{ship},t} / \sum_{\text{ship}} W_{\text{ship},t} \quad (4)$$

where:

$M_{ship,t}$ and $W_{ship,t}$ represents the total mass of CO₂ emitted from and the total transport work undertaken by a ship of this type in a given calendar year, as stipulated in the *Guidelines on operational carbon intensity indicators and the calculation methods (G1)*.

4 The reduction factors for the required annual operational CII of ship types

4.1 In accordance with regulation 28 of MARPOL Annex VI, the required annual operational CII for a ship is calculated as follows:

$$\text{Required annual operational CII} = (1 - Z / 100) \times CII_R$$

where CII_R is the reference value in year 2019 as defined in the *Guidelines on the reference lines for use with operational carbon intensity indicators (G2)*, Z is a general reference to the reduction factors for the required annual operational CII of ship types from year 2023 to 2030, as specified in table 1.

Table 1: Reduction factor (Z%) for the CII relative to the 2019 reference line

| Year | Reduction factor relative to 2019 |
|------|-----------------------------------|
| 2023 | 5%* |
| 2024 | 7% |
| 2025 | 9% |
| 2026 | 11% |
| 2027 | - ** |
| 2028 | - ** |
| 2029 | - ** |
| 2030 | - ** |

Note:

- * Z factors of 1%, 2% and 3% are set for the years of 2020 to 2022, similar as business as usual until entry into force of the measure.
- ** Z factors for the years of 2027 to 2030 to be further strengthened and developed taking into account the review of the short-term measure.

5 Background information on rational ranges of reduction factors of ship types in year 2030

5.1 In the *Initial IMO Strategy on Reduction of GHG Emissions from Ships* (Resolution MEPC.304(72)), the levels of ambition on carbon intensity of international shipping have been set taking year 2008 as reference. The carbon intensity of international shipping in year 2008, as well as the improvement through 2012 to 2018, has been estimated in the *Fourth IMO GHG Study 2020*. However, since the scope and data collection methods applied in the *Fourth IMO GHG Study 2020* were inconsistent with those under IMO DCS, the results derived from the two sources cannot be compared directly.

5.2 To ensure the comparability of the attained carbon intensity of international shipping through year 2023 to 2030 with the reference line, the following methods are applied to calculate the equivalent carbon intensity target in year 2030 ($eR_{shipping,2030}$), taking year 2019 as reference, i.e. how much additional improvement is needed by 2030 from the 2019 performance level.

5.3 The achieved carbon intensity reduction of international shipping in year 2019 relative to year 2008 ($R_{shipping,2019}$) can be estimated as the sum of the achieved carbon intensity reduction of international shipping in year 2018 relative to year 2008 ($R_{shipping,2018}$) as given by the *Fourth IMO GHG Study 2020* and the estimated average annual improvement during 2012 and 2018 ($\bar{r}_{shipping}$), as follows:

$$R_{shipping,2019} = R_{shipping,2018} + \bar{r}_{shipping} \quad (5)$$

5.4 The following provides the calculations using demand-based measurement and supply-based measurement.

5.4.1 Demand-based measurement of 2030 target

As estimated by the *Fourth IMO GHG Study 2020*, the attained CII of international shipping (on aggregated demand-based metric) has reduced by **31.8%** ($R_{shipping,2018} = 31.8\%$) compared to 2008, with an estimated average annual improvement at **1.5** percentage points ($\bar{r}_{shipping} = 1.5\%$). In accordance with Eq.(5), the carbon intensity reduction achieved in year 2019 is estimated as **33.3%** ($R_{shipping,2019} = 33.3\%$).

5.4.2 Supply-based measurement of 2030 target

As estimated by the *Fourth IMO GHG Study 2020*, the attained CII of international shipping (on aggregated supply-based metric) has reduced by **22.0%** ($R_{shipping,2018} = 22.0\%$) compared to 2008, with an estimated average annual improvement at **1.6** percentage points ($\bar{r}_{shipping} = 1.6\%$). In accordance with Eq.(5), the carbon intensity reduction achieved in year 2019 relative to 2008 is estimated as **23.6%** ($R_{shipping,2019} = 23.6\%$).

5.5 Given the achieved carbon intensity reduction of international shipping in year 2019 relative to year 2008, the carbon intensity reduction target of international shipping in year 2030 can be converted to the equivalent target ($eR_{shipping,2030}$) relative to year 2019, as follows:

$$eR_{shipping,2030} = \frac{40\% - R_{shipping,2019}}{1 - R_{shipping,2019}} \quad (6)$$

5.5.1 Demand-based measurement of 2030 target

In accordance with Eq.(6), the equivalent reduction factor of international shipping in year 2030 relative to year 2019 ($eR_{shipping,2030}$) would be at least **10.0%** measured in aggregated demand-based CII metric, i.e. at least additional **10.0%** improvement from the 2019 level is needed by 2030.

5.5.2 Supply-based measurement of 2030 target

In accordance with Eq.(6), the equivalent reduction factor of international shipping in 2030 relative to year 2019 ($eR_{shipping,2030}$) would be at least **21.5%**, measured in aggregated supply-based CII metric, i.e. at least additional **21.5%** improvement from the 2019 level is needed by 2030.

ANNEX 13

**RESOLUTION MEPC.339(76)
(adopted on 17 June 2021)**

**2021 GUIDELINES ON THE OPERATIONAL CARBON INTENSITY
RATING OF SHIPS (CII RATING GUIDELINES, G4)**

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 conferred upon it by international conventions for the prevention and control of marine pollution from ships,

NOTING that it adopted, by resolution MEPC.328(76), the 2021 revised MARPOL Annex VI, which is expected to enter into force on 1 November 2022 upon its deemed acceptance on 1 May 2022,

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

NOTING FURTHER that regulation 28.6 of MARPOL Annex VI requires ships to which this regulation apply to determine operational carbon intensity rating taking into account guidelines developed by the Organization,

RECOGNIZING that the aforementioned amendments to MARPOL Annex VI require relevant guidelines for uniform and effective implementation of the regulations,

HAVING CONSIDERED, at its seventy-sixth session, draft *2021 Guidelines on the operational carbon intensity rating of ships (CII rating guidelines, G4)*,

1 ADOPTS the *2021 Guidelines on the operational carbon intensity rating of ships (CII rating guidelines, G4)*, as set out in the annex to the present resolution;

2 INVITES Administrations to take the annexed Guidelines into account when developing and enacting national laws which give force to and implement requirements set forth in regulation 28.6 of MARPOL Annex VI;

3 REQUESTS the Parties to MARPOL Annex VI and other Member Governments to bring the annexed Guidelines to the attention of masters, seafarers, shipowners, ship operators and any other interested parties;

4 AGREES to keep the Guidelines under review in light of experience gained with their implementation, of additional data collected and analysed, and in light of the review of CII regulations to be completed by the Organization by 1 January 2026 as identified in regulation 28.11 of MARPOL Annex VI.

ANNEX

2021 GUIDELINES ON THE OPERATIONAL CARBON INTENSITY RATING OF SHIPS (CII RATING GUIDELINES, G4)

1 Introduction

1.1 These Guidelines provide the methods to assign operational energy efficiency performance ratings to ships, as referred to in regulation 28 of MARPOL Annex VI. On this basis, the boundaries for determining a ship's annual operational carbon intensity performance from year 2023 to 2030 are also provided.

2 Definitions

2.1 *MARPOL* means the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocols of 1978 and 1997 relating thereto, as amended.

2.2 *IMO DCS* means the data collection system for fuel oil consumption of ships referred to in regulation 28 and related provisions of MARPOL Annex VI.

2.3 For the purpose of these Guidelines, the definitions in MARPOL Annex VI, as amended, apply.

2.4 *Operational carbon intensity rating* means to assign a ranking label from among the five grades (A, B, C, D and E) to the ship based on the attained annual operational carbon intensity indicator, indicating a major superior, minor superior, moderate, minor inferior, or inferior performance level.

3 Framework of the operational energy efficiency performance rating

3.1 An operational energy efficiency performance rating should be annually assigned to each ship to which regulation 28 of MARPOL Annex VI applies, in a transparent and robust manner, based on the deviation of the attained annual operational carbon intensity indicator (CII) of a ship from the required value.

3.2 To facilitate the rating assignment, for each year from 2023 to 2030, four boundaries are defined for the five-grade rating mechanism, namely superior boundary, lower boundary, upper boundary, and inferior boundary. Thus, a rating can be assigned through comparing the attained annual operational CII of a ship with the boundary values.

3.3 The boundaries are set based on the distribution of CIIs of individual ships in year 2019. The appropriate rating boundaries are expected to generate the following results: the middle 30% of individual ships across the fleet segment, in terms of the attained annual operational CIIs, are to be assigned rating C, while the upper 20% and further upper 15% of individuals are to be assigned rating D and E respectively, the lower 20% and further lower 15% of the individuals are to be assigned rating B and A respectively, as illustrated in figure 1.

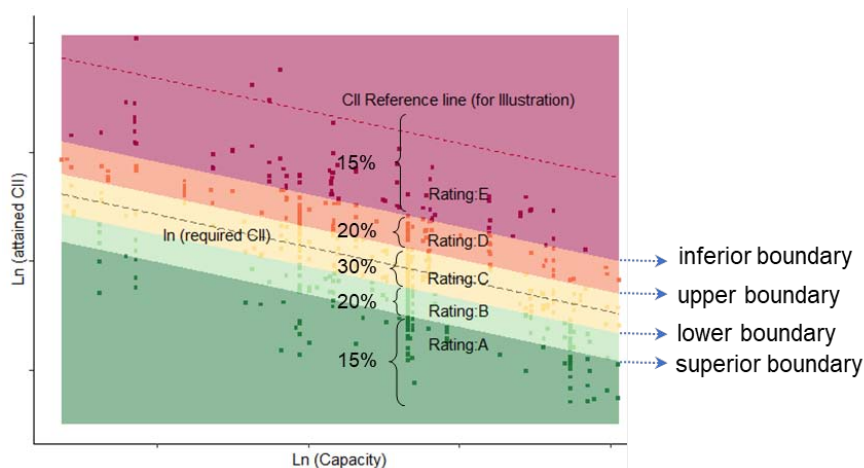


Figure 1: Operational energy efficiency performance rating scale

3.4 Given the incremental operational carbon intensity reduction factors over time, the boundaries for defining performance ratings should be synchronized accordingly, although the relative distance between the boundaries should not change. The rating of a ship would be determined by the attained CII and the predetermined rating boundaries, rather than the attained CII of other ships. Note that the distribution of ship individual ratings in a specific year may not be always identical with the scenario in 2019, where for example 20% may achieve A, 30% may achieve B, 40% may achieve C, 8% may achieve D and 2% may achieve E in a given year.

4 Method to determine the rating boundaries

4.1 The boundaries can be determined by the required annual operational CII in conjunction with the vectors, indicating the direction and distance they deviate from the required value (denoted as *dd* vectors for easy reference), as illustrated in figure 2.

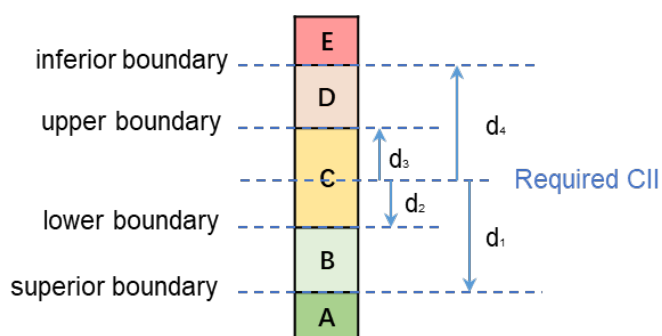


Figure 2: *dd* vectors and rating bands

4.2 Statistically, the *dd* vectors depend on the distribution of the attained annual operational CII of ships of the type concerned, which can be estimated through a quantile regression, taking data collected through DCS in year 2019 as the sample.

4.3 The quantile regression model for a specific ship type can be developed as follows:

$$\ln(\text{attained CII}) = \delta^{(p)} - c \ln(\text{Capacity}) + \varepsilon^{(p)}, \quad p = \{0.15, 0.35, 0.50, 0.65, 0.85\} \quad (5)$$

where *Capacity* is identical with the one used in the operation carbon intensity indicator as specified in the Guidelines on operational carbon intensity indicators and the calculation

methods (G1); p is the typical quantile, meaning the proportion of observations with a lower value is $p\%$; $\delta^{(p)}$ is the constant term, and $\varepsilon^{(p)}$ is the error term.

4.4 The quantile regression lines in logarithm form are illustrated in Fig.3.

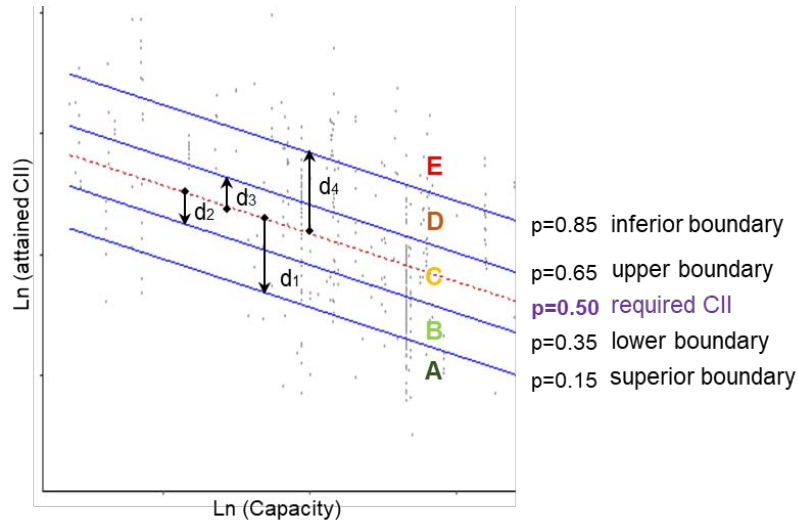


Figure 3: Quantile regression lines in logarithm form

4.5 Then, the dd vectors can be calculated based on the estimates of the intercept ($\hat{\delta}^{(p)}$), in accordance with Eq.(2), as follows:

$$\left. \begin{aligned} d_1 &= \hat{\delta}^{(0.15)} - \hat{\delta}^{(0.50)} \\ d_2 &= \hat{\delta}^{(0.35)} - \hat{\delta}^{(0.50)} \\ d_3 &= \hat{\delta}^{(0.65)} - \hat{\delta}^{(0.50)} \\ d_4 &= \hat{\delta}^{(0.85)} - \hat{\delta}^{(0.50)} \end{aligned} \right\} \quad (6)$$

4.6 Through an exponential transformation of each dd vector, the four boundaries fitted in the original data form can be derived based on the required annual operational carbon intensity indicator ($required\ CII$), as follows:

$$\left. \begin{aligned} \text{superior boundary} &= \exp(d_1) \cdot required\ CII \\ \text{lower boundary} &= \exp(d_2) \cdot required\ CII \\ \text{upper boundary} &= \exp(d_3) \cdot required\ CII \\ \text{inferior boundary} &= \exp(d_4) \cdot required\ CII \end{aligned} \right\} \quad (7)$$

Rating boundaries of ship types

The estimated dd vectors after exponential transformation for determining the rating boundaries of ship types are as follows:

Table 1: *dd* vectors for determining the rating boundaries of ship types

| Ship type | | Capacity in CII calculation | <i>dd</i> vectors (after exponential transformation) | | | |
|------------------------------------|-----------------------|-----------------------------------|---|---------|---------|---------|
| | | | exp(d1) | exp(d2) | exp(d3) | exp(d4) |
| Bulk carrier | | DWT | 0.86 | 0.94 | 1.06 | 1.18 |
| Gas carrier | 65,000 DWT and above | DWT | 0.81 | 0.91 | 1.12 | 1.44 |
| | less than 65,000 DWT | DWT | 0.85 | 0.95 | 1.06 | 1.25 |
| Tanker | | DWT | 0.82 | 0.93 | 1.08 | 1.28 |
| Container ship | | DWT | 0.83 | 0.94 | 1.07 | 1.19 |
| General cargo ship | | DWT | 0.83 | 0.94 | 1.06 | 1.19 |
| Refrigerated cargo carrier | | DWT | 0.78 | 0.91 | 1.07 | 1.20 |
| Combination carrier | | DWT | 0.87 | 0.96 | 1.06 | 1.14 |
| LNG carrier | 100,000 DWT and above | DWT | 0.89 | 0.98 | 1.06 | 1.13 |
| | less than 100,000 DWT | | 0.78 | 0.92 | 1.10 | 1.37 |
| Ro-ro cargo ship (vehicle carrier) | | GT | 0.86 | 0.94 | 1.06 | 1.16 |
| Ro-ro cargo ship | | DWT | 0.66 | 0.90 | 1.11 | 1.37 |
| Ro-ro passenger ship | | GT | 0.72 | 0.90 | 1.12 | 1.41 |
| Cruise passenger ship | | GT | 0.87 | 0.95 | 1.06 | 1.16 |

By comparing the attained annual operational CII of a specific ship with the four boundaries, a rating can then be assigned. For example, given the required CII of a bulk carrier in a specific year as 10 gCO₂/(dwt.nmile), then the superior boundary, lower boundary, upper boundary, and inferior boundary is 8.6, 9.4, 10.6 and 11.8 gCO₂/(dwt.nmile). If the attained CII is 9 gCO₂/(dwt.nmile), the ship would be rated as "B".

ANNEX 14

WORK PLAN FOR DEVELOPMENT OF MID- AND LONG-TERM MEASURES AS A FOLLOW-UP OF THE INITIAL IMO STRATEGY ON REDUCTION OF GHG EMISSIONS FROM SHIPS

- 1 This work plan is developed to progress development of mid- and long-term measures in line with the *Initial IMO Strategy on Reduction of GHG Emissions from Ships* and its Programme of follow-up actions.
- 2 The work plan aims at supporting the achievement of the vision and the levels of ambition agreed in the Initial Strategy.
- 3 The work plan consists of three main phases:
 - .1 Phase I – Collation and initial consideration of proposals for measures;
 - .2 Phase II – Assessment and selection of measure(s) to further develop; and
 - .3 Phase III – Development of (a) measure(s) to be finalized within (an) agreed target date(s).
- 4 The implementation of the work plan includes the assessment of impacts on States of the proposed measures in accordance with the *Procedure for assessing impacts on States of candidate measures* set out in MEPC.1/Circ.885, taking into account the outcome of the lessons-learned exercise from the comprehensive impact assessment of the short-term measure.¹
- 5 Once a measure is adopted and enacted, the Committee should keep its implementation and impacts under review, upon request from Member States, so that any necessary adjustments may be made.

Phase I: Collation and initial consideration of proposals for measures

- 6 *Purpose:* To table various proposals for measures in order to be able to understand and compare their main features and implications.
- 7 *What to do:* Identify the key issues to consider in relation to each proposed measure, along with considerations of their potential impacts on States in application of MEPC.1/Circ.885. The key issues should include, but not be limited to, the following elements:
 - .1 main characteristics and features of the measure, including in particular the scope of application, the appropriate IMO legal framework envisaged (new or existing), whether alternative methods of compliance may be used, and all other relevant elements enabling its understanding and implications;
 - .2 identification of emissions reduction potential, when the measure will start taking effect, and reductions to be expected by 2050;
 - .3 potential implications on the shipping industry, in particular on technical and operational aspects, and on costs and investment needs for the maritime industry;

¹ As set out in resolution MEPC.328(76).

- .4 implementation and enforcement aspects, such as actions that would need to be taken by industry stakeholders, by national Administrations as flag States and port States, etc.;
- .5 legal aspects and relationship with relevant international law; and
- .6 indication of the total workload for the Organization including expected time frame for development, approval, adoption and implementation of the measure, and suggestions on how to expedite the work.

8 *Time period:* Spring 2021 to spring 2022. The first phase of the work plan may require frequent meetings between MEPC 76 and MEPC 78 and may entail an added workload both on the Committee and the Secretariat.

Phase II: Assessment and selection of measures to further develop

9 *Purpose:* To identify (a) candidate measure(s) to develop further as a priority.

10 *What to do:* Build upon information from Phase I to select the measure(s) to further develop in as a priority. This decision should be based on an assessment of the proposed measures, in particular their feasibility, their effectiveness to deliver the long-term levels of ambition of the Initial Strategy and their potential impacts on States.

11 *Time period:* Spring 2022 to spring 2023. The Committee's decision on measures to develop as a priority may be taken in conjunction with the revision of the Initial Strategy. The second phase of the work plan may also necessitate frequent meetings in a format to be decided by the Committee.

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

12 *Purpose:* In the case of amending existing legal instruments, prepare amendments as appropriate. In the case of developing a new legal instrument, prepare a framework for consideration by the Committee in order to decide on the way forward.

13 *What to do:* Develop and adopt the measure(s), along with the assessments of impacts on States in application of MEPC.1/Circ.885.² In order to support this process, a detailed outline of the framework supporting information and assessment of how the selected measure(s) will meet the long-term levels of ambition could be undertaken.

14 *Timeline:* Target date(s) to be agreed in conjunction with the IMO Strategy on Reduction of GHG Emissions from Ships.

² As may be amended.

ANNEX 15

BIENNIAL AGENDA OF THE PPR SUB-COMMITTEE FOR THE 2022-2023 BIENNIUM

| Reference to SD, if applicable | Output number | Description ¹ | Parent organ(s) | Associated organ(s) | Coordinating organ | Target completion year |
|--|---------------|---|-----------------|-----------------------------------|--------------------|------------------------|
| 1. Improve implementation | 1.3 | Validated model training courses | MSC / MEPC | III / PPR/ CCC / SDC / SSE / NCSR | HTW | Continuous |
| 1. Improve implementation | 1.11 | Measures to harmonize port State control (PSC) activities and procedures worldwide | MSC / MEPC | HTW / PPR / NCSR | III | Continuous |
| 1. Improve implementation | 1.12 | Review of the 2015 Guidelines for exhaust gas cleaning systems (resolution MEPC.259(68)) | MEPC | PPR | | 2020 |
| Note: A decision on whether output 1.12 will be kept in the 2022-2023 biennial agenda of the PPR Sub-Committee will depend on the outcome of MEPC 77 | | | | | | |
| 1. Improve implementation | 1.15 | Revised guidance on methodologies that may be used for enumerating viable organisms | MEPC | PPR | | 2022 |
| 1. Improve implementation | 1.21 | Review of the 2011 Guidelines for the control and management of ships' biofouling to minimize the transfer of invasive aquatic species (resolution MEPC.207(62)) | MEPC | PPR | | 2023 |
| 1. Improve implementation | 1.23 | Evaluation and harmonization of rules and guidance on the discharge of discharge water from EGCS into the aquatic environment, including conditions and areas | MEPC | PPR | | 2022 |

¹ Outputs shown in bold font have been selected for the draft provisional agenda for PPR 9 set out in annex 16.

| Reference to SD, if applicable | Output number | Description ¹ | Parent organ(s) | Associated organ(s) | Coordinating organ | Target completion year |
|--|-------------------|---|-----------------|-----------------------|--------------------|------------------------|
| 1. Improve implementation | 1.26 | Revision of MARPOL Annex IV and associated guidelines to introduce provisions for record-keeping and measures to confirm the lifetime performance of sewage treatment plants | MEPC | III / HTW | PPR | 2023 |
| 1. Improve implementation | 1... ² | Development of an operational guide on the response to spills of Hazardous and Noxious Substances (HNS) | MEPC | PPR | | 2023 |
| 2. Integrate new and advancing technologies in the regulatory framework | 2.3 | Amendments to the IGF Code and development of guidelines for low-flashpoint fuels | MSC | HTW / PPR / SDC / SSE | CCC | Continuous |
| 2. Integrate new and advancing technologies in the regulatory framework | 2.13 | Review of the IBTS Guidelines and amendments to the IOPP Certificate and Oil Record Book | MEPC | PPR | | 2020 |
| Note: A decision on whether output 2.13 will be kept in the 2022-2023 biennial agenda of the PPR Sub-Committee will depend on the outcome of MEPC 77 | | | | | | |
| 2. Integrate new and advancing technologies in the regulatory framework | 2.15 | Development of amendments to MARPOL Annex VI and the NO_x Technical Code on the use of multiple engine operational profiles for a marine diesel engine | MEPC | PPR | | 2023 |

² Moved to the biennial agenda of the Sub-Committee from the post-biennial agenda of MEPC.

| Reference to SD, if applicable | Output number | Description ¹ | Parent organ(s) | Associated organ(s) | Coordinating organ | Target completion year |
|---|---------------|--|-----------------|------------------------------------|--------------------|------------------------|
| 2. Integrate new and advancing technologies in the regulatory framework | 2.18 | Standards for shipboard gasification of waste systems and associated amendments to regulation 16 of MARPOL Annex VI | MEPC | PPR | | 2023 |
| 2. Integrate new and advancing technologies in the regulatory framework | 2.19 | Revision of guidelines associated with the AFS Convention as a consequence of the introduction of controls on cybutryne | MEPC | PPR | | 2022 |
| 3. Respond to climate change | 3.3 | Reduction of the impact on the Arctic of Black Carbon emissions from international shipping | MEPC | PPR | | 2023 |
| 4. Engage in ocean governance | 4.3 | Follow-up work emanating from the Action Plan to address marine plastic litter from ships | MEPC | PPR / III / HTW | | 2023 |
| 6. Ensure regulatory effectiveness | 6.1 | Unified interpretation of provisions of IMO safety, security and environment-related conventions | MSC / MEPC | III / PPR / CCC / SDC / SSE / NCSR | | Continuous |
| 6. Ensure regulatory effectiveness | 6.3 | Safety and pollution hazards of chemicals and preparation of consequential amendments to the IBC Code | MEPC | PPR | | Continuous |
| 6. Ensure regulatory effectiveness | 6.11 | Development of measures to reduce risks of use and carriage of heavy fuel oil as fuel by ships in Arctic waters | MEPC | PPR | | 2022 |
| 6. Ensure regulatory effectiveness | 6.15 | Role of the human element | MSC / MEPC | III / PPR / CCC / SDC / SSE / NCSR | HTW | Continuous |

| Reference to SD, if applicable | Output number | Description ¹ | Parent organ(s) | Associated organ(s) | Coordinating organ | Target completion year |
|------------------------------------|--------------------|---|-----------------|---------------------|--------------------|------------------------|
| 6. Ensure regulatory effectiveness | 6.... ³ | Development of necessary amendments to MARPOL Annexes I, II, IV, V and VI to allow States with ports in the Arctic region to enter into regional arrangements for port reception facilities (PRFs) | MEPC | PPR | | 2023 |

³ Moved to the biennial agenda of the PPR Sub-Committee from the post-biennial agenda of MEPC.

ANNEX 16

PROVISIONAL AGENDA FOR PPR 9

Opening of the session

- 1 Adoption of the agenda
- 2 Decisions of other IMO bodies
- 3 Safety and pollution hazards of chemicals and preparation of consequential amendments to the IBC Code
- 4 Development of an operational guide on the response to spills of Hazardous and Noxious Substances (HNS)
- 5 Revised guidance on methodologies that may be used for enumerating viable organisms
- 6 Revision of guidelines associated with the AFS Convention as a consequence of the introduction of controls on cybutryne
- 7 Review of the 2011 Guidelines for the control and management of ships' biofouling to minimize the transfer of invasive aquatic species (resolution MEPC.207(62))
- 8 Reduction of the impact on the Arctic of Black Carbon emissions from international shipping
- 9 Standards for shipboard gasification of waste systems and associated amendments to regulation 16 of MARPOL Annex VI
- 10 Evaluation and harmonization of rules and guidance on the discharge of discharge water from EGCS into the aquatic environment, including conditions and areas
- 11 Development of amendments to MARPOL Annex VI and the NO_x Technical Code on the use of multiple engine operational profiles for a marine diesel engine
- 12 Development of measures to reduce risks of use and carriage of heavy fuel oil as fuel by ships in Arctic waters
- 13 Development of necessary amendments to MARPOL Annexes I, II, IV, V and VI to allow States with ports in the Arctic region to enter into regional arrangements for port reception facilities (PRFs)
- 14 Revision of MARPOL Annex IV and associated guidelines to introduce provisions for record-keeping and measures to confirm the lifetime performance of sewage treatment plants
- 15 Follow-up work emanating from the Action Plan to Address Marine Plastic Litter from Ships
- 16 Unified interpretation to provisions of IMO environment-related conventions

- 17 Biennial agenda and provisional agenda for PPR 10
- 18 Election of Chair and Vice-Chair for 2023
- 19 Any other business
- 20 Report to the Marine Environment Protection Committee

ANNEX 17

STATUS REPORT OF THE OUTPUTS OF MEPC FOR THE 2020-2021 BIENNIUM

| MARINE ENVIRONMENT PROTECTION COMMITTEE (MEPC) | | | | | | | | | |
|--|---------------|--|------------------------|-----------------|------------------------------------|--------------------|-----------------------------|-----------------------------|--|
| Reference to SD, if applicable | Output number | Description | Target completion year | Parent organ(s) | Associated organ(s) | Coordinating organ | Status of output for Year 1 | Status of output for Year 2 | References |
| 1. Improve implementation | 1.2 | Input on identifying emerging needs of developing countries, in particular SIDS and LDCs to be included in the ITCP | Continuous | TCC | MSC / MEPC / FAL / LEG | | Ongoing | Ongoing | MEPC 75/18, section 12; MEPC 76/15, section 11 |
| 1. Improve implementation | 1.3 | Validated model training courses | Continuous | MSC / MEPC | III / PPR / CCC / SDC / SSE / NCSR | HTW | Ongoing | | MEPC 75/18, paras.11.3 to 11.5 |
| 1. Improve implementation | 1.4 | Analysis of consolidated audit summary reports | Annual | Assembly | MSC / MEPC / LEG / TCC / III | Council | Completed | | MEPC 75/18, paras.11.15 to 11.17 |
| 1. Improve implementation | 1.5 | Non-exhaustive list of obligations under instruments relevant to the IMO Instruments Implementation Code (III Code) | Annual | MSC / MEPC | III | | Completed | | MEPC 75/18, para. 11.11 |
| 1. Improve implementation | 1.7 | Identify thematic priorities within the area of maritime safety and security, marine environmental protection, facilitation of maritime traffic and maritime legislation | Annual | TCC | MSC / MEPC / FAL / LEG | | Completed | Completed | MEPC 75/18, section 12; MEPC 76/15, section 11 |
| 1. Improve implementation | 1.9 | Report on activities within the ITCP related to the OPRC Convention and the OPRC-HNS Protocol | Annual | TCC | MEPC | | Completed | Completed | MEPC 75/18, section 12; MEPC 76/15, section 11 |

| MARINE ENVIRONMENT PROTECTION COMMITTEE (MEPC) | | | | | | | | | |
|--|---------------|---|------------------------|-----------------|---------------------|--------------------|-----------------------------|-----------------------------|--|
| Reference to SD, if applicable | Output number | Description | Target completion year | Parent organ(s) | Associated organ(s) | Coordinating organ | Status of output for Year 1 | Status of output for Year 2 | References |
| 1. Improve implementation | 1.11 | Measures to harmonize port State control (PSC) activities and procedures worldwide | Continuous | MSC / MEPC | HTW / PPR / NCSR | III | Ongoing | | MEPC 75/18, paras. 11.10 and 11.11 |
| 1. Improve implementation | 1.12 | Review of the 2015 Guidelines for exhaust gas cleaning systems (resolution MEPC.259(68)) | 2020 | MEPC | PPR | | In progress | In progress | PPR 7/22, section 11; MEPC 75/18, para. 10.35; MEPC 76/15, para.9.10 |
| Note: PPR 7 had agreed the draft MEPC resolution and MEPC 75 had agreed to defer the consideration of the draft MEPC resolution to MEPC 76 with a view to adoption, thus extending the TCY to 2021, which was further deferred to MEPC 77 for consideration. | | | | | | | | | |
| 1. Improve implementation | 1.13 | Review of mandatory requirements in the SOLAS, MARPOL and Load Line Conventions and the IBC and IGC Codes regarding watertight doors on cargo ships | 2021 | MSC / MEPC | CCC | SDC | In progress | | MSC 102/24, para. 17.28; MSC 103/21, paras. 3.19 and 3.33 |
| 1. Improve implementation | 1.14 | Revised guidance on ballast water sampling and analysis | 2021 | MEPC | PPR | | Completed | | MEPC 74/18, para. 4.36; PPR 7/22, section 5; and MEPC 75/18, paras. 10.27 to 10.28 |

| MARINE ENVIRONMENT PROTECTION COMMITTEE (MEPC) | | | | | | | | | |
|--|---------------|---|------------------------|-----------------|---------------------|--------------------|-----------------------------|-----------------------------|---|
| Reference to SD, if applicable | Output number | Description | Target completion year | Parent organ(s) | Associated organ(s) | Coordinating organ | Status of output for Year 1 | Status of output for Year 2 | References |
| 1. Improve implementation | 1.15 | Revised guidance on methodologies that may be used for enumerating viable organisms | 2021 | MEPC | PPR | | In progress | Extended | MEPC 74/17, para. 14.25; PPR 7/22, section 5; and MEPC 75.18, para. 14.2.2; MEPC 76/15, para.12.6 |
| Note: MEPC 75 approved a reduced provisional agenda for PPR 8 that did not include output 1.15. MEPC 76 agreed to extend the TCY to 2022. | | | | | | | | | |
| 1. Improve implementation | 1.17 | Development of guidelines for onboard sampling of fuel oil not in-use by the ship | 2020 | MEPC | PPR | | Completed | | MEPC 74/18, paras. 5.57 to 5.59; PPR 7/22, section 9; and MEPC 75/18, paras. 10.22 to 10.24 |
| Note: PPR 7 agreed to change the title of the Guidelines to "Guidelines for onboard sampling of fuel oil intended to be used or carried for use on board a ship" (PPR 7/22, para. 9.8), which was further approved by MEPC 75. | | | | | | | | | |
| 1. Improve implementation | 1.18 | Measures to ensure quality of fuel oil for use on board ships | 2021 | MEPC | | | In progress | In progress | MEPC 74/18, section 5; and MEPC 75/18, section 5; MEPC 76/15, section 4 |

| MARINE ENVIRONMENT PROTECTION COMMITTEE (MEPC) | | | | | | | | | |
|---|---------------|--|------------------------|-----------------|---------------------|--------------------|-----------------------------|-----------------------------|--|
| Reference to SD, if applicable | Output number | Description | Target completion year | Parent organ(s) | Associated organ(s) | Coordinating organ | Status of output for Year 1 | Status of output for Year 2 | References |
| 1. Improve implementation | 1.21 | Review of the 2011 Guidelines for the control and management of ships' biofouling to minimize the transfer of invasive aquatic species (resolution MEPC.207(62)) | 2021 | MEPC | | | In progress | Extended | MEPC 72/17, para. 15.8; and PPR 7/22, section 7; PPR 8/13, section 4; MEPC 76/15, para.12.6 |
| Note: MEPC 76 approved the request by PPR 8 to extend the TCY to 2023 | | | | | | | | | |
| 1. Improve implementation | 1.23 | Evaluation and harmonization of rules and guidance on the discharge of liquid effluents from EGCS into waters, including conditions and areas | 2021 | MEPC | | | In progress | Extended | MEPC 74/18, para. 14.11; PPR 7/22, section 12; and MEPC 75/18, para.10.35; MEPC 76/15, para.9.10.1 |
| Note: PPR 7 agreed to revise the title to "Evaluation and harmonization of rules and guidance on the discharge of discharge water from EGCS into the aquatic environment", subject to approval by MEPC 76 (PPR 7/22, paras. 12.12 and 22.21). Due to time constraints, MEPC 76 agreed to defer the consideration of the scope of work agreed by PPR 7 and the modified title for output 1.23 to MEPC 77. MEPC 77 will have to consider extending the TCY to allow PPR 9 in 2022 to continue working on this output. | | | | | | | | | |
| 1. Improve implementation | 1.24 | Review of the BWM Convention based on data gathered in the experience-building phase | 2023 | MEPC | | | In progress | In progress | MEPC 74/18, paras. 4.2 to 4.6 and 4.52; MEPC 76/15 section 4 |

| MARINE ENVIRONMENT PROTECTION COMMITTEE (MEPC) | | | | | | | | | |
|---|---------------|--|------------------------|-----------------|---------------------|--------------------|-----------------------------|-----------------------------|---|
| Reference to SD, if applicable | Output number | Description | Target completion year | Parent organ(s) | Associated organ(s) | Coordinating organ | Status of output for Year 1 | Status of output for Year 2 | References |
| 1. Improve implementation | 1.25 | Urgent measures emanating from issues identified during the experience-building phase of the BWM Convention | 2023 | MEPC | | | In progress | In progress | MEPC 74/18, paras. 4.27 and 4.60; and MEPC 75/18, para.4.19; MEPC 76/15 para.4.8 |
| 1. Improve implementation | 1.26 | Revision of MARPOL Annex IV and associated guidelines to introduce provisions for record-keeping and measures to confirm the lifetime performance of sewage treatment plants | 2021 | MEPC | III / HTW | PPR | In progress | Extended | MEPC 74/18, paras. 14.2 to 14.7; and PPR 7/22, section 16; PPR 8/13, section 7; MEPC76/14, para. 12.6 |
| Note: MEPC 76 approved the request by PPR 8 to extend the TCY to 2023. | | | | | | | | | |
| 1. Improve implementation | 1.33 | Development of training provisions for seafarers related to the BWM Convention | 2021 | MEPC | HTW | | In progress | Extended | MEPC 73/19, para. 15.10.1; HTW 7/16, para.12.2 |
| Note: Target completion year extended to 2022 as a consequence of the postponement of HTW 7 and its planned arrangements. | | | | | | | | | |
| 1. Improve implementation | 1.35 | Review the Model Agreement for the authorization of recognized organizations acting on behalf of the Administration | 2021 | MSC / MEPC | III | | In progress | | MSC 102/24, paras. 14.8, 21.2 and 21.3 (new output relocated); MEPC 75/18, paras. 11.12 and 11.14 |

| MARINE ENVIRONMENT PROTECTION COMMITTEE (MEPC) | | | | | | | | | |
|--|---------------|---|------------------------|-----------------|---------------------|--------------------|-----------------------------|-----------------------------|--|
| Reference to SD, if applicable | Output number | Description | Target completion year | Parent organ(s) | Associated organ(s) | Coordinating organ | Status of output for Year 1 | Status of output for Year 2 | References |
| 1. Improve implementation | 1... | Development of an operational guide on the response to spills of Hazardous and Noxious Substances (HNS) | 2022 | MEPC | PPR | | In progress | Extended | MEPC 74/18, para. 14.20 and MEPC 75/18, paras. 14.1 and 14.2.2; MEPC 76/15, para.12.6 |
| Note: MEPC 75 had agreed to move the above output from the post-biennial agenda of MEPC to the biennial agenda of PPR with a TCY of 2022, as requested by PPR 7. However, MEPC 75 approved a reduced provisional agenda for PPR 8, which does not include this output. Consequently, PPR 8 had agreed to consider including the output in its provisional agenda for PPR 9 and adjust the target completion year accordingly, which was approved by MEPC 76. | | | | | | | | | |
| 2. Integrate new and advancing technologies in the regulatory framework | 2.2 | Approved ballast water management systems which make use of Active Substances, taking into account recommendations of the GESAMP-BWWG | Annual | MEPC | | | Completed | Completed | MEPC 75/18, section 4; MEPC 76/15, section 4 |
| 2. Integrate new and advancing technologies in the regulatory framework | 2.13 | Review of the IBTS Guidelines and amendments to the IOPP Certificate and Oil Record Book | 2020 | MEPC | PPR | | Postponed | In progress | MEPC 74/18, par. 14.25; PPR 7/22, section 16; and MEPC 75/18, para. 10.35; MEPC 76/15, para.9.10.4 |
| Note: MEPC 75 agreed to defer consideration of the two draft MEPC circulars and the draft amendments (PPR 7/22/Add.1, annexes 13, 14 and 15) to MEPC 76, thus the TCY being extended to 2021. MEPC 76 deferred this to MEPC 77 for consideration. | | | | | | | | | |
| 2. Integrate new and advancing technologies in the regulatory framework | 2.14 | Amendments to regulation 14 of MARPOL Annex VI to require a dedicated sampling point for fuel oil | 2020 | MEPC | | | Completed | | MEPC 75/18, sections 3 and 5 |

| MARINE ENVIRONMENT PROTECTION COMMITTEE (MEPC) | | | | | | | | | |
|---|---------------|---|------------------------|-----------------|---------------------|--------------------|-----------------------------|-----------------------------|---|
| Reference to SD, if applicable | Output number | Description | Target completion year | Parent organ(s) | Associated organ(s) | Coordinating organ | Status of output for Year 1 | Status of output for Year 2 | References |
| 2. Integrate new and advancing technologies in the regulatory framework | 2.15 | Development of amendments to MARPOL Annex VI and the NOx Technical Code on the use of multiple engine operational profiles for a marine diesel engine | 2021 | MEPC | PPR | | In progress | Extended | PPR 7/22, section 13; and MEPC 75/18, para. 14.2.2; MEPC 76/15, para.12.6 |
| Note: MEPC 76 approved the biennial status report of the PPR Sub-Committee the provisional agenda of PPR 9, thus extending the TCY to 2023. | | | | | | | | | |
| 2. Integrate new and advancing technologies in the regulatory framework | 2.17 | Consideration of development of goal-based ship construction standards for all ship types | 2021 | MSC / MEPC | | | No work requested by MSC | | MSC 102/24, section 7 |
| 2. Integrate new and advancing technologies in the regulatory framework | 2.18 | Standards for shipboard gasification of waste systems and associated amendments to regulation 16 of MARPOL Annex VI | 2020 | MEPC | PPR | | Extended | Extended | MEPC 70/17, paragraph 15.17; PPR 5/24, section 8; MEPC 72/17, para. 15; PPR 7/22, section 10; and MEPC 75/18, para. 14.1; MEPC 76/15, para.12.6 |
| Note: MEPC 75 agreed to extend the TCY of output 2.18 to 2021, as requested by PPR 7. MEPC 76 approved the biennial status report of the PPR Sub-Committee and the provisional agenda of PPR 9, thus further extending the TCY to 2023. | | | | | | | | | |
| 2. Integrate new and advancing technologies in | 2.19 | Amendment of Annex 1 to the AFS Convention to include controls on cybutryne, and | 2020 | MEPC | PPR | | Extended | Extended | MEPC 71/17, paragraph 14.3; PPR 5/24, section 19 and |

| MARINE ENVIRONMENT PROTECTION COMMITTEE (MEPC) | | | | | | | | | |
|---|---------------|--|------------------------|-----------------|---------------------|--------------------|-----------------------------|-----------------------------|---|
| Reference to SD, if applicable | Output number | Description | Target completion year | Parent organ(s) | Associated organ(s) | Coordinating organ | Status of output for Year 1 | Status of output for Year 2 | References |
| the regulatory framework | | consequential revision of relevant guidelines | | | | | | | para. 24.2.25; MEPC 73/19, paras. 15.12 to 15.15; PPR 6/20, section 6; MEPC 74/18, paras. 10.19 and 10.20; PPR 7/22, section 6; and MEPC 75/18, paras. 10.14 to 10.21 and 14.1; MEPC 76/15, para.12.6 |
| Note: MEPC 75 agreed to extend the target completion year of output 2.19 to 2022 and approve the change of title of the output to "Revision of guidelines associated with the AFS Convention as a consequence of the introduction of controls on cybutryne", as requested by PPR 7. | | | | | | | | | |
| 3. Respond to climate change | 3.1 | Treatment of ozone-depleting substances used by ships | Annual | MEPC | | | Completed | | MEPC 74/18, paras. 5.75 and 5.76 |
| 3. Respond to climate change | 3.2 | Further development of mechanisms needed to achieve the limitation or reduction of CO2 emissions from international shipping | Annual | MEPC | | | Completed | In progress | MEPC 74/18, sections 6 and 7; MEPC 75/18, sections 6 and 7; MEPC 76/15, sections 6 and 7 |
| 3. Respond to climate change | 3.3 | Reduction of the impact on the Arctic of emissions of black | 2021 | MEPC | PPR | | In progress | In progress | MEPC 71/17, paragraph 5.3; PPR 5/24, |

| MARINE ENVIRONMENT PROTECTION COMMITTEE (MEPC) | | | | | | | | | |
|--|---------------|---|------------------------|-----------------|---------------------|--------------------|-----------------------------|-----------------------------|---|
| Reference to SD, if applicable | Output number | Description | Target completion year | Parent organ(s) | Associated organ(s) | Coordinating organ | Status of output for Year 1 | Status of output for Year 2 | References |
| | | carbon from international shipping | | | | | | | section 7 and para. 24.2.7; MEPC 73/19, paragraph 5.3; PPR 6/20, section 7; MEPC 74/18, para. 5.67; PPR 7/22, section 8; MEPC 75/18, para. 10.35; MEPC 76/15, para.9.10.3 |
| 3. Respond to climate change | 3.4 | Promotion of technical cooperation and transfer of technology relating to the improvement of energy efficiency of ships | 2021 | MEPC | | | In progress | In progress | MEPC 74/18, sections 7 and 12; and MEPC 75/18, sections 7 and 12; MEPC 76/15, sections 7 and 11 |
| 3. Respond to climate change | 3.5 | Revision of guidelines concerning EEDI and SEEMP | 2021 | MEPC | | | In progress | In progress | MEPC 75/18, sections 6 and 7; MEPC 76/15, sections 6 and 7 |
| 3. Respond to climate change | 3.6 | EEDI reviews required under regulation 21.6 of MARPOL Annex VI | 2021 | MEPC | | | In progress | In progress | MEPC 75/18, section 3 and para. 6.4; MEPC 76/15, section 6 |

| MARINE ENVIRONMENT PROTECTION COMMITTEE (MEPC) | | | | | | | | | |
|---|---------------|--|------------------------|-----------------|------------------------------------|--------------------|-----------------------------|-----------------------------|--|
| Reference to SD, if applicable | Output number | Description | Target completion year | Parent organ(s) | Associated organ(s) | Coordinating organ | Status of output for Year 1 | Status of output for Year 2 | References |
| 3. Respond to climate change | 3.7 | Further technical and operational measures for enhancing the energy efficiency of international shipping | 2021 | MEPC | | | In progress | In progress | MEPC 75/18, sections 3 and 6; MEPC 76/15, sections 3 and 6 |
| 4. Engage in ocean governance | 4.1 | Identification and protection of Special Areas, ECAs and PSSAs | Continuous | MEPC | NCSR | | Ongoing | | MEPC 75/18, section 9 |
| 4. Engage in ocean governance | 4.2 | Input to the ITCP on emerging issues relating to sustainable development and achievement of the SDGs | Continuous | TCC | MSC / MEPC / FAL / LEG | | Ongoing | Ongoing | MEPC 75/18, section 12; MEPC 76/15, section 11 |
| 4. Engage in ocean governance | 4.3 | Follow-up work emanating from the Action Plan to address marine plastic litter from ships | 2021 | MEPC | PPR / III / HTW | | In progress | Extended | MEPC 72/17, paragraphs 15.2 to 15.6; MEPC 73/19, section 8 and annex 10; MEPC 74/18, paragraph 8.37.1; PPR 7/22, section 17; MEPC 75/18, section 8; PPR 8/13, section 8; MEPC 76/15, para.12.6 |
| Note: In line with the four sessions approved to complete this work, as agreed by MEPC 74, the TCY should be set to 2023 in the biennial agenda of the MEPC/PPR for the 2022-2023 biennium. | | | | | | | | | |
| 6. Ensure regulatory effectiveness | 6.1 | Unified interpretation of provisions of IMO safety, security, environment, | Continuous | MSC / MEPC | III / PPR / CCC / SDC / SSE / NCSR | | Ongoing | Ongoing | PPR 7/22 section 18; MEPC 75/18, |

| MARINE ENVIRONMENT PROTECTION COMMITTEE (MEPC) | | | | | | | | | |
|--|---------------|---|------------------------|-----------------|---------------------|--------------------|-----------------------------|-----------------------------|---|
| Reference to SD, if applicable | Output number | Description | Target completion year | Parent organ(s) | Associated organ(s) | Coordinating organ | Status of output for Year 1 | Status of output for Year 2 | References |
| | | facilitation, liability and compensation-related conventions | | FAL / LEG | | | | | paras. 10.34 and 10.35; MEPC 76/15, paras. 4.5, 5.23 and 9.5 |
| 6. Ensure regulatory effectiveness | 6.3 | Safety and pollution hazards of chemicals and preparation of consequential amendments to the IBC Code | Continuous | MEPC | PPR | | Ongoing | Ongoing | PPR 7/22, section 3; and MEPC 75/18, paras.10.3 to 10.12; MEPC 76/15, paras.9.7 and 9.8 |
| 6. Ensure regulatory effectiveness | 6.4 | Lessons learned and safety issues identified from the analysis of marine safety investigation reports | Annual | MSC / MEPC | III | | Completed | | III 6/15, section 4 |
| 6. Ensure regulatory effectiveness | 6.5 | Identified issues relating to the implementation of IMO instruments from the analysis of PSC data | Annual | MSC / MEPC | III | | Completed | | III 6/15, section 6 |
| 6. Ensure regulatory effectiveness | 6.7 | Consideration and analysis of reports on alleged inadequacy of port reception facilities | Annual | MEPC | III | | Completed | | III 6/15, section 3. |
| 6. Ensure regulatory effectiveness | 6.8 | Monitoring the worldwide average sulphur content of fuel oils supplied for use on board ships | Annual | MEPC | | | Completed | | MEPC 74/18, paras. 5.52 to 5.56; and MEPC 75/18, paras. 5.1 to 5.5 |

| MARINE ENVIRONMENT PROTECTION COMMITTEE (MEPC) | | | | | | | | | |
|---|---------------|---|------------------------|-----------------|------------------------------------|--------------------|-----------------------------|-----------------------------|--|
| Reference to SD, if applicable | Output number | Description | Target completion year | Parent organ(s) | Associated organ(s) | Coordinating organ | Status of output for Year 1 | Status of output for Year 2 | References |
| 6. Ensure regulatory effectiveness | 6.11 | Development of measures to reduce risks of use and carriage of heavy fuel oil as fuel by ships in Arctic waters | 2020 | PPR | | | Extended | Completed | MEPC 74/18, paragraphs 10.22 to 10.25; PPR 7/22, section 14; and MEPC 75/18, paras. 10.29 to 10.33 and 14.1; MEPC 76/15, section 3 |
| Note: MEPC 75 approved the draft amendments to MARPOL Annex I (prohibition on the use and carriage for use as fuel of heavy fuel oil by ships in Arctic waters), with a view to adoption by MEPC 76, and the extension of the TCY of this output to 2021. | | | | | | | | | |
| 6. Ensure regulatory effectiveness | 6.15 | Role of the human element | Continuous | MSC / MEPC | III / PPR / CCC / SDC / SSE / NCSR | HTW | No work requested | | |
| 6. Ensure regulatory effectiveness | 6.30 | Updated Survey Guidelines under the Harmonized System of Survey and Certification (HSSC) | Annual | MSC / MEPC | III | | Completed | | III 6/15, section 8; and MEPC 75/18, paras. 10.26, 11.11 and 11.19 |
| 6. Ensure regulatory effectiveness | 6.31 | Consideration of reports of incidents involving dangerous goods or marine pollutants in packaged form on board ships or in port areas | Annual | MSC / MEPC | III | CCC | No work requested | | CCC 6/14, section 9; MSC 102/24, paras.21.2 and 21.3 |
| Note: The above output had the number OW 19. However, MSC 102 agreed to relocate it to strategic direction 7 and invited the Council to endorse this decision. | | | | | | | | | |

| MARINE ENVIRONMENT PROTECTION COMMITTEE (MEPC) | | | | | | | | | |
|--|---------------|---|------------------------|-----------------|------------------------------|--------------------|-----------------------------|-----------------------------|---|
| Reference to SD, if applicable | Output number | Description | Target completion year | Parent organ(s) | Associated organ(s) | Coordinating organ | Status of output for Year 1 | Status of output for Year 2 | References |
| 7. Ensure organizational effectiveness | 7.1 | Endorsed proposals for the development, maintenance and enhancement of information systems and related guidance (GISIS, websites, etc.) | Continuous | Council | MSC / MEPC / FAL / LEG / TCC | | Ongoing | Ongoing | MEPC 75/18, para. 16.7; MEPC 76/15, paras.6.6 to 6.11 |
| 7. Ensure organizational effectiveness | 7.3 | Analysis and consideration of reports on partnership arrangements for, and implementation of, environmental programmes | Annual | TCC | MEPC | | Completed | Completed | MEPC 75/18, section 12; MEPC 76/15, section 11 |
| 7. Ensure organizational effectiveness | 7.9 | Revised documents on organization and method of work, as appropriate | 2021 | Council | MSC / FAL / LEG / TCC / MEPC | | In progress | | MEPC 75/18, section 15 |
| OW. Other work | OW.13 | Endorsed proposals for new outputs for the 2020-2021 biennium as accepted by the Committees | Annual | Council | MSC / MEPC / FAL / LEG / TCC | | Postponed | Completed | MEPC 75/18, section 14.11; MEPC 76/15, section 12.1 to 12.5 |
| OW. Other work | OW.23 | Cooperate with the United Nations on matters of mutual interest, as well as provide relevant input/guidance | 2021 | Assembly | MSC / MEPC / FAL / LEG / TCC | Council | In progress | In progress | MEPC 75/18, paras.7.3, 7.4 and 8.1; MEPC 76/15, paras.7.5 and 8.1 |
| OW. Other work | OW.24 | Cooperate with other international bodies on matters of mutual interest, as well as provide relevant input/guidance | 2021 | Assembly | MSC / MEPC / FAL / LEG / TCC | Council | In progress | In progress | MEPC 75/18, sections 7 and 12; MEPC 76/15, sections 7 and 11 |

ANNEX 18

POST-BIENNIAL AGENDA OF MEPC

MEPC 76 agreed to include, subject to endorsement of the Council, in the relevant Sub-Committees' biennial agenda of 2022-2023, the following outputs:

- "Review of the 2014 Guidelines for the reduction of underwater noise from commercial shipping to address adverse impacts on marine life (MEPC.1/Circ.833) (2014 Guidelines) and identification of next steps", in the provisional agenda of SDC 8, with a target completion year of 2023;
- "Development of an entrant training manual for PSC personnel", in the provisional agenda of III 8, with a target completion year of 2023; and
- "Development of guidance in relation to IMSAS to assist in the implementation of the III Code by Member States", in the provisional agenda of III 8, with a target completion year of 2023.
- "Development of necessary amendments to MARPOL Annexes I, II, IV, V and VI to allow States with ports in the Arctic region to enter into regional arrangements for port reception facilities (PRFs)", in the provisional agenda of PPR 8, with a target completion year of 2023.

| MARINE ENVIRONMENT PROTECTION COMMITTEE (MEPC) | | | | | | | | |
|--|-----------|---|---|-----------------|---------------------|--------------------|------------|------------------------|
| ACCEPTED POST-BIENNIAL OUTPUTS | | | | Parent organ(s) | Associated organ(s) | Coordinating organ | Timescale | Reference |
| No. | Biennium* | Reference to strategic direction, if applicable | Description | | | | | |
| 1 | 2016-2017 | 6. Ensure regulatory effectiveness | Development of amendments to regulation 19 of MARPOL Annex VI and development of an associated Exemption Certificate for the exemption of ships not normally engaged on international voyages | MEPC | III | | 2 sessions | MEPC 71/17, par.14.15 |
| 2 | 2012-2013 | OW. Other work | Recommendations related to navigational sonar on crude oil tankers | MSC / MEPC | SDC | | 1 session | MSC 91/22, para. 19.23 |

* Biennium when the output was placed on the post-biennial agenda

ANNEX 19

ITEMS TO BE INCLUDED IN THE AGENDA OF MEPC 77

| No.* | Item |
|-------------|---|
| 1 | Adoption of the agenda |
| 2 | Decisions of other bodies |
| 3 | Identification and protection of Special Areas, ECAs and PSSAs |
| 4 | Harmful aquatic organisms in ballast water |
| 5 | Air pollution prevention |
| 6 | Energy efficiency of ships |
| 7 | Reduction of GHG emissions from ships |
| 8 | Follow-up work emanating from the Action Plan to Address Marine Plastic Litter from Ships |
| 9 | Pollution prevention and response |
| 10 | Reports of other sub-committees |
| 11 | Work programme of the Committee and subsidiary bodies |
| 12 | Application of the Committees' method of work |
| 13 | Election of the Chair and Vice-Chair |
| 14 | Any other business |
| 15 | Consideration of the report of the Committee |

* The numbering may not correspond to the number of the agenda item in the forthcoming session.

ANNEX 20

STATEMENTS BY DELEGATIONS AND OBSERVERS*

ITEM 1

Statement by the delegation of China

"We have noted that on April 13, the Japanese government decided to dispose of the nuclear contaminated water from the Fukushima nuclear plant accident by discharging it into the sea. As a close neighbor and stakeholder, the Chinese side expresses grave concern over this. Republic of Korea, Russian Federation and many of Latin American and South Pacific countries also publicly voiced their concerns.

Despite doubts and opposition from home and abroad, Japan has unilaterally decided to release the Fukushima nuclear contaminated water into the sea before exhausting all safe ways of disposal and without fully consulting with neighboring countries and the international community. This is highly irresponsible and will severely affect human health and the immediate interests of people in neighboring countries.

The oceans are mankind's shared property. How the contaminated water from the Fukushima nuclear power plant is handled is not merely a domestic issue for Japan. We strongly urge the Japanese side to face up to its responsibility, follow the science, fulfill its international obligations and duly respond to the serious concerns of the international community, neighboring countries and its own people. We ask Japan to reevaluate the issue and revoke the wrong decision. China stands for an early establishment of an IAEA technical working group that includes members from China and other stakeholders to carry out work on Japan's disposal plan as well as the follow-up implementation and international assessment and supervision. Before then it should refrain from wantonly discharging the contaminated water. China will continue to watch closely the developments of the matter together with the international community and reserves the right to make further reactions."

Statement by the delegation of the Democratic People's Republic of Korea

"Thank you, Mr. Chair,

Good afternoon, Good morning, Good evening, distinguished delegates,

Regarding the Japanese government's decision to dump the radioactive waste water into the sea, the international community and experts have expressed great doubts about the rationality and reliability of Japan's radioactive water processing method.

Furthermore, the Japanese people and associates engaged in fishing are themselves strongly opposing their government's decision.

So, it is clear that the discharge of radioactive waste water by Japan can pose a great risk to the marine ecology environment of neighbouring countries including the Democratic People's Republic of Korea, as well as the life safety and health of the people.

* Statements have been included in this annex as provided by delegations/observers, in the order in which they were given, sorted by agenda item, and in the language of submission (including translation into any other language if such translation was provided). Statements are accessible in all official languages on audio file at: <http://docs.imo.org/Meetings/Media.aspx>

Therefore, the Democratic People's Republic of Korea reiterates that Japan should not arbitrarily discharge the radioactive waste water into the sea, being aware of its serious consequences of discharging the water.

Thank you, Mr. Chair"

Statement by the delegation of Japan

"In the previous statement by China, the Democratic People's Republic of Korea and the Republic of Korea, there were some references to the discharge of the ALPS treated water into the sea, which is not the topic at MEPC.

First of all, I'd like to point out that ALPS treated water is not contaminated water but treated water.

The Government of Japan has provided the international community with relevant information. Those include relevant international conferences hosted by the IAEA, the OECD/NEA and other organizations.

The Government of Japan will continue to explain its efforts to the international community in a transparent manner.

The details of the potential impacts of the disposal of ALPS treated water should be discussed based on scientific evidence at appropriate fora with relevant expertise on the issue.

Japan, as a responsible member of the international community, will comply with international law as well as domestic and international rules in discharging the ALPS treated water.

For the implementation of discharge into the sea, Tokyo Electric Power Company (TEPCO) complies with the relevant international law including United Nations Convention on the Law of the Sea, and domestic and international rules and regulations.

The IAEA also acknowledges the discharge into the sea as technically feasible and in line with international practice."

Statement by the delegation of Georgia

"Thank you Mr Chair. Good morning to all. Ivane Abashidze speaking on behalf of the delegation of Georgia.

Mr Secretary General, thank you for your opening statement that set the ball rolling for MEPC 76 highlighting the salient points that this meeting must address. This remains our mission : to continue tackling firmly and, in earnest, the issues that would lead the maritime industry, as a whole, to achieve globally the crucial goals that the maritime industry, responsibly, has set itself and within the target dates that the gravity of our quest demands.

Distinguished delegates, MEPC 76, is as crucial as the previous sessions and, as the ones that follow. It is a continuing process. It opens only two days after the United Nations, last Tuesday, celebrated World Oceans Day that has, as its underlying theme, *Healthy Oceans : Healthy Planet*. How apt to celebrate this day, this year with its specific focus *The Oceans: Life and Livelihoods*, comes back to back with a session of the IMO Committee that has as its raison d'être the prevention of marine and atmospheric pollution by ships.

Shipping, the life of all nations, coastal states and landlocked countries, and the livelihood, directly and indirectly, of all peoples must carry out its role in consonance with the oceans and the air above us. This is our duty : to protect without falter this common heritage of mankind and to ensure the sustainability of world trade where every shipment counts.

Mr Chair, Distinguished delegates.

This same month there is yet another celebration that the IMO and you, Mr Secretary General, in your video message some days ago has put in front of us, June 25, the Day of the Seafarer and, I hastily add, that also of the spouse of the seafarer.

These last months, challenging times for all of humankind has highlighted what we knew already, that seafarers are indeed key workers. This has been universally recognised and acknowledged. It now goes without saying that the logical follow through is to act on the call of IMO to expand this message to ensure a fair future for the seafarers. Without going into details and specifics it is crucial that these do not remain just statements but also translate into action worldwide by governments and the whole industry for, inter alia, all its maritime workers, offshore and onshore. As the saying goes, it is action that marks the measures of real change and transformation.

Mr Chair, this delegation reiterates the support and commitment of the government of Georgia and of Maritime Georgia that already expressed in other fora, for the work of IMO for the prevention of marine and atmospheric pollution by ships. We are fully conscious that the oceans are the life and livelihood of us all and, particularly coming from a nation of thousands of seafarers, that the support of these key workers and the importance of ensuring for them a fair future is the responsibility of all.

This, firm in the belief that real success can only be achieved globally and through IMO. We are confident that both governments and the whole industry are together four square behind sustainable shipping and the timely attainment and realisation of our never ending quest to ensure healthy oceans for a healthy planet and a fair future for seafarers."

Statement by the observer from Pacific Environment

"Thank you

Sir, it is traditional at this point of the meeting for Members to address recent human or environmental disasters that have a consequence for global shipping. Sir, the disaster that I am living is a disaster that is personal to me, but it is also personal to each and every one of us and especially to the planet. We in the Arctic are convinced that the Arctic is clearly in crisis and the change is happening rapidly beyond compare to human history and our indigenous knowledge. Last month, the Arctic Council released a new report concluding that the Arctic is warming three times faster than the average heating across the whole planet and we face the possibility that major portions of the cryosphere will be gone. Climate heating in the Arctic threatens the global climate and sea level rise around the world is an immediate concern for low-lying cities. A two metre sea level rise will have devastating impacts in many coastal communities and will likely put community infrastructure underwater.

Climate-driven disruptions in my Bering Sea homeland have placed the ecosystem in peril, with devastating impacts on both fisheries and protected resources. The Bering Sea is an exceptional ecosystem of tremendous ecological, economic and cultural importance. It supports one of the largest fisheries in the world and provides critical habitat for marine and terrestrial plants and wildlife. It is home to numerous communities and it is my home.

The IMO has already recognized that the Arctic is vulnerable to the impacts of shipping - but bolder action to protect the Arctic is urgently needed. The entire world looks to the IMO to address international shipping's contribution to the Arctic climate crisis - in hopes the IMO would take meaningful action to reduce both emissions of greenhouse gases as well as emissions of black carbon. An increase in marine traffic heightens the risk of major events like oil spills and whale strikes and introduces millions of gallons of wastewater, chemicals, trash and noise pollution.

Last week, new research has found that Arctic sea ice is thinning twice as fast as previously thought, and while some might be tempted to view this as good news for shipping in the Arctic, it is not good news for me, for my community and other Arctic inhabitants, or for the planet. There can be no doubt that the Arctic is in crisis, and if the Arctic is in crisis, then we are all in crisis.

On behalf of myself and my community, and my colleagues at this meeting, I would like to stress the need for urgent action to reduce shipping's climate warming impacts on the Arctic. An ambitious and effective short term GHG measure consistent with the Paris Agreement temperature goals is needed, as is immediate action to cut black carbon emissions from ships in or near the Arctic.

Thank you"

Statement by the delegation of the Islamic Republic of Iran

"This delegation has also noticed the use of the incorrect term 'Arabian Gulf' in the document submitted by FOEI in MEPC 76/INF.65 in its page 11 and that the delegation may wish to record its concern over the incorrect use of historical terms, and takes the opportunity to draw the attention of our colleague that according to UN resolution ST/CS/SER.A/29 of 10 January 1990 and its subsequent addendum, the standard geographical designation of the body of water between Arabian peninsula and Iran(I.R of) is called Persian Gulf and the full term should always be used. that principle also applies to the terms such as Gulf area, Gulf States etc. When the term Gulfs area under Annexes I and V of the MARPOL Convention is used it refers to Persian Gulf and Gulf of Oman. Having that in mind, this delegation urges all Member States of IMO, NGOs, and IGOs to use the correct name of "Persian Gulf" in their documents and interventions."

ITEM 3

Statement by the delegation of Portugal

"Dear Chair,

We are ready to support the adoption of the draft amendments to MARPOL Annex VI on carbon intensity of ships, as a stepping stone for a regulatory framework that needs to be further improved and made more ambitious.

Having said that, we would like to recall our disappointment with the decision of this Committee to leave the carbon intensity reduction rates for Phase 3 blank. This in our view does not guarantee the achievement of the 2030 target and introduces great uncertainty both for the business and the regulators.

We remain committed to future IMO work on reduction of GHG emissions from ships and believe that IMO should provide global solutions ensuring a level-playing field and the clarity for the industry. However, the discussions this week has yet again showed that the current

IMO working arrangements reached their limit in dealing with the complex GHG issues in an effective and inclusive manner. We need to collectively find a solution that will allow us to deliver on effective mid-term measures in a timely manner"

ITEM 7

Statement by the delegation of Kenya

"My Chairman, Distinguished Delegates,

This delegation thanks the Working Group for paper MEPC.304(72) Agenda Item 7.

We note the impressive progress already made, and register our satisfaction in this regard. This delegation wishes to take cognizance of the major role of the Global MTCC Network (GMN) in building capacity for climate change mitigation in the maritime shipping industry in line with the progressive consideration of the Initial IMO GHG Strategy, towards the reduction of Green House Gas (GHG) emissions from ships in the industry at large. Through GMN, the Maritime Technology Cooperation Centres have navigated through the industry establishing robust linkages, as well as spearheading advancement of technical expertise within developing countries.

Mr. Chairman, Distinguished Delegates, the (GMN) and MTCCs are fast approaching a phase where actual implementation of the Initial IMO Strategy will be of essence to developing countries, who are yet to come full circle into total implementation completion of the short-term candidate measures, as precisely highlighted in the strategy.

We therefore seek consideration for the critical need for sustaining the most crucial mechanism IMO created for capacity building, which is the GMN network. This network, faces an uncertain future as EU funding will no longer be available after December this year, just at that point when developing countries, especially SIDS and LDC, struggle to start implementation of the short-term candidate measures under the Initial IMO GHG Strategy. In this regard, we hereby put in a request to EU to continue the kind support without an interruption and without losing momentum which was precipitated by the most innovative and impactful intervention EU and IMO catalyzed to fight climate change issues.

This delegation wishes to express its gratitude to the European Union for funding the GMN project. We wish however, to encourage the EU to continue in funding a Phase 2 through a tested GMN/MTCC.

As I conclude, I wish to request that Kenya's statement in this regard be appended to the report. We shall be sending a copy of the same to the Secretariat.

Thank you, Mr. Chairman"

Statement by the delegation of Belize

"Thank you, Mr. Chair and good day, to all,

Belize would like to thank the Secretariat and the Steering Committee under the coordination of Mr. Harry Conway of Liberia for all the work made on this matter.

After analyzing the Comprehensive Impact Assessment of Short-Term Measure document given under agenda item MEPC 76-7-13, this delegation is of the view that enhancing the technical cooperation to developing countries is of paramount importance, and this emphasizes the need for sustainable interventions through the Maritime Technology Cooperation Centres (MTCCs). Belize, for instance, along with other Caribbean countries, has benefitted significantly from the MTCC Caribbean.

Thanks to the European Union (EU), we have a working model for technical cooperation on this issue. We request that the EU considers to continue supporting this important global network of MTCCs through the International Maritime Organization. This will ensure that countries like ours can continue to implement the GHG Strategy.

Belize would like to align ourselves in supporting the proposal made by Solomon Island in document MEPC 76-7-62 specifically on the review after three years from the entry into force of the short-term measures whether there are any disproportionately negative impacts on States, SIDS and LDCs in particular.

Mr. Chair, this delegation would like to request that this intervention is included in your report.

Thank you, Mr. Chair."

Statement by the delegation of Indonesia

"We would like to thank the Secretariat for preparing the document 76/7/13. We note the action requested at para 11.5.2 that identifying capacity-building is needed to improve impact assessments, including strengthening the capacity of developing countries, especially SIDS and LDCs.

So it is in this context, this delegation is of view that MTCC is one of the best example in the form of strengthening the capacity, with the support and contribution from donors through IMO's technical cooperation in this area. Indonesia is one of beneficiaries of these projects, and we realize the need to have "lesson learned" for future mechanism development.

Furthermore we would like to also support document 76/7/64 underlining the impact to social and economy which is actual impact posed by the short term-measures... especially for countries that rely on sea transport heavily like Indonesia...

We also wish to encourage the Secretariat to increase the efforts to mobilize more resources and to consider supporting the continuation of the MTCC network which is specifically captured in our initial GHG strategy.

Thank you."

Statement by the delegation of Jamaica

"Thank you Chair.

Good Morning, Good Afternoon and Good Evening Everyone.

Chair we want to start by aligning ourselves with the comments of the distinguished delegates of Kenya, Trinidad & Tobago and others in thanking the EU for their funding of the Maritime Technology Cooperation Centre initiative. Climate change and its impacts are a reality for small island states of the Caribbean. Each year as we face the increasing ferocity of adverse

weather conditions, which destroy whole communities and threatens our very existence as states we are more than mindful of the need for urgent action.

Through the MTCC in the Caribbean, states have been mobilized to work with stakeholders to seek to increase awareness of the need for and the strategies/initiatives available to reduce harmful emissions and contribute to the global climate action thrust. The MTCC has made significant contributions to capacity building within the Caribbean region. Their work has assisted Jamaica and the region in gaining further insight into the technical, legal, and institutional framework requirements for the facilitation of green technology uptake and energy efficient operations.

Their capacity building initiatives have, provided opportunities for collaboration among public and private sector industry stakeholders; facilitated the exchange of knowledge, promoted maritime energy efficiency, and highlighted various approaches to achieving compliance with MARPOL Annex VI, including through the leveraging of existing legal and institutional mechanisms to achieve compliance. This is especially important given the challenges in the region with effectively implementing the MARPOL Convention, increasing technical knowledge, and the decarbonization of ports.

However, the job is not complete. We believe the MTCC will continue to be vital to Jamaica and the region's efforts to develop a blue economy, implement and regulate GHG emission reduction measures thus further strengthening their capacity to contribute toward achieving the IMO GHG Strategy and increase awareness in the region. Given the maritime climate action hurdles unique to the region, we therefore fully endorse initiatives for the continuation of the MTCC project in the Caribbean."

Statement by the delegation of Saint Kitts and Nevis

"Dear Chair,

Thank you for giving us the floor.

Due to time constraints this Delegation wants to be brief and stands with other delegations in expressing their appreciation and support to the work of the Global MTCC Network (GMN) and especially to the Caribbean MTCC.

The Caribbean Maritime Technology Cooperation Centre (MTCC Caribbean) has made major contributions to the region's capacity building. Their work has helped our country and region get a better understanding of the technical, legal, and institutional framework needs for green technology adoption and energy efficiency operations.

Given the Caribbean's particular marine climate action challenges, St. Kitts and Nevis fully support any actions aimed at ensuring the MTCC's continuity and support for the Caribbean.

Major challenges exist in efficiently integrating MARPOL into our legal and institutional frameworks, as well as significant technical knowledge gaps and slow technological adoption, not to mention issues that remain largely unaddressed, such as port decarbonization. There is still more work to be done, and MTCC being aware of the region's requirements will play a significant role in advancing the process.

We will continue to collaborate with the MTCC Caribbean which continues to advocate for low carbon maritime operations in the region.

Thank you."

Statement by the delegation of Argentina

"Señor Presidente,

La Argentina reconoce el trabajo hecho en la evaluación de impacto.

Según la estrategia inicial, el impacto sobre los estados debe ser evaluado y considerado antes (subrayo antes) de la adopción de una medida. En el MEPC 75, decidimos un procedimiento especial para no retrasar la medida.

En los hechos, la metodología fue mejor que la de la Circular 885. Los resultados son muy claros: los países en desarrollo sufrirán un mayor impacto económico, tanto en su comercio como en su PBI, que los desarrollados, y los distantes de sus mercados, serán más impactados. Aun dentro del rango de reducción evaluado (10 a 21,5%), cuanto más alto sea el porcentaje, mayor será el impacto. Al respecto, reconocemos el documento 7/61 de Brasil.

Algunos Miembros argumentan que no se han identificado impactos desproporcionadamente negativos, o que tal definición no ha sido acordada. Varios urgieron a abordar la crisis del clima según las metas del Acuerdo de París.

La Argentina coincide en la urgencia de tomar medidas, pero también con la ética, asimismo mencionada aquí.

La ética en el cambio climático se traduce en "equidad" y en "solidaridad". El Acuerdo de París establece metas dado que el cambio climático es un problema de toda la humanidad, pero también reconoce el derecho al desarrollo, y los principios de equidad y CBDR. El principio CBDR, además, es parte de la Estrategia Inicial.

No parece equitativo citar las metas del Acuerdo de París y a la vez negar los impactos que la medida tendrá, o excusarse en definiciones aun no acordadas. Y es decepcionante que algunos países desarrollados sugieran limitarse a un grupo de países en desarrollo.

Todos los países en desarrollo estamos decididos a contribuir solidariamente a la lucha contra un problema de la humanidad que no generamos. Pero la solidaridad demanda tener en cuenta nuestras circunstancias.

Numerosos países en desarrollo viven del comercio internacional de commodities, aumentos en los fletes o en los días de navegación naturalmente nos afectan. No reconocer los impactos económicos de esta medida, y no proveer mecanismos para abordarlos, menoscabarán nuestra capacidad para cumplir objetivos nacionales, como el de reducir la pobreza, pero también nuestra acción contra el cambio climático.

La Argentina apoya los cursos de acción contenidos en el documento 7/13, párrafo 11, y el documento 63, pero no puede apoyar el documento 62.

Señor Presidente, este es momento crucial, pero es sólo el primero. Hasta dónde, como Miembros de la OMI, estemos dispuestos a una acción equitativa y solidaria determinará cuán exitosos seamos ahora y en el mediano y largo plazo.

Muchas gracias."

Statement by the delegation of Belgium

"Thank you Chair and good day to all. Belgium welcomes and supports in principle the work on the Comprehensive Impact Assessment of the STM and we thank all that contributed to the work, including the drafting of the report.

With regard to the commenting papers, we agree, as mentioned in MEPC 76/7/64, that it is important to keep the impacts of the STM on States, especially SIDS and LDCs, under review.

In that sense, we can support the proposal in MEPC 76/7/62, which proposes to consider disproportionately negative impacts on States in the light of 3 years of implementation of the STM, offering the committee the necessary time to gain more insight and experience on any disproportionate negative impacts endured by the STM.

With regard to the development of a permanent mechanism, as proposed in para 15.2 of document MEPC 76/7/64, we believe that this is premature and we would support the interventions from France and Germany on how to further deal with the impact assessment.

In any case, we should ascertain that the overall climate ambition is not hampered, as was well explained by Tuvalu.

In the same reasoning, we cannot support the proposal in MEPC 76/7/63 to introduce general exemptions and waivers."

Statement by the delegation of the Cook Islands

First statement

"Thank you for all the work done by the Steering Committee on the comprehensive impact assessment, the results of which, sadly, do not seem to be being taken too seriously. The Terms of Reference given by your committee were fulfilled and only after the event does it seem that they are being undermined. We had a robust stakeholder assessment during that exercise and there is absolutely no question that we are going to be severely impacted by these short-term measures. There is no question that the negative impacts – an al are negative in our case -will directly affect the lives, society and social fabric for those still living on our islands. We have had the rhetoric; now we need action.

With regard to the waiver clause, we would firstly point out that within MARPOL Annex VI there is already a waiver clause, namely Regulation 19.4 which provides a waiver in respect of the EEDI. With regard to the CII, what was proposed to be exempted , after review of the comprehensive impact assessment, in a new Reg 19.7 was the enforcement mechanism in case of rating of D/E. In other words, the ships in question would still be required to meet the CII requirements as much as they can while serving us but would not be penalised in case of being rated D/E. In short the ships in question would still need to report fuel consumption and to be rated but would be exempted from the requirements for corrective actions, so that they would still be able to serve us in a timely fashion.

There is just one shipping company that serves our islands and we are at the very end of the South Pacific supply chain. And if the couple of ships that currently serve our islands are unable to meet the carbon intensity reduction targets what then? We have no idea whether those two vessels that serve our needs will be able to comply with whatever reduction target is agreed this week, and if they cannot comply, what happens then? No amount of technical cooperation will ensure that we continue to receive food and medicines we rely on and to

suggest that we should have to wait for 5 years for this committee to carry out a proper assessment of impacts would simply be far too late.

With regard to the reference to "disproportionate", the Initial Strategy is explicit: you are required to take into account the negative impacts prior to adoption. A negative impact that could be absorbed by some developed nations would cause serious impediment to others. As our stakeholder assessment has shown within the Steering Committee's report, we would likely suffer significant disproportionate impact

Thank you Chair"

Second statement

"Thank you Chair and thank you for your summation. You appear to have made no mention, however, of the issue of disproportionality, which was a key part of the discussion leading to your summation, if not the decisions made. What we need to know is whether the IMO is the only organisation that does not appear to understand what disproportionality is, unlike the UN itself, the OHCR, UNHCR, the IPCC, UNEP, OECD - I could go on.

In our paper discussing further measures on impact assessments we cut and pasted from the West and Central Pacific Fisheries Commission agreement where it is agreed: "... ensure that any measure adopted does not result in transferring directly or indirectly a disproportionate burden of conservation action on developing countries, SIDS and LDCs, and thereafter, if identified, an exemption of specific obligations would be given". Delegates here from many states say that they do not understand what disproportionate impacts are and yet the states that are Party to the West and Central Pacific Fisheries Agreement, are all part and parcel of an agreement that compels and obliges them to do this. Why is it that those states can do it under that agreement, but cannot do it as required by IMO's Initial GHG Strategy when reviewing our Stake Holder Assessment? I would like an explanation on that, please.

The results outlined in the Steering Committee's report were not a desk top exercise in our case. It was hands-on, specific the Cook Islands and its import needs and way of life. I would also like to say while technical cooperation is extremely important, no amount of technical cooperation will ensure that we continue to receive the essential foods and services that we rely on in a timely and cost-effective manner.

To now turn this aside leaves us in a precarious position. What you are now doing in telling us to wait five years to gauge the impact of the short-term measures on us is putting us into a situation that is insufferable, unjustified and will place an intolerable burden on an economy already ravaged by the pandemic; and will contribute to further undermining our recovery and put back our development for many years."

Statement by the delegation of Germany

"Thank you, Chair, for giving us the floor.

We would like to thank the Steering Committee and its Chair Harry Conway, the Secretariat as well as the World Maritime University, UNCTAD, DNV, and Starcrest for the work done under immense time pressure.

The reports present estimations of impacts, and although we have reservations about some of the methodologies used in the reports, which may have implications for the outcomes, we accept the report of the impact assessment.

The question before us today is how to deal with the outcome of the impact assessment. This delegation remains committed to assessing and addressing impacts of measures on States, as appropriate, in line with the Initial Strategy. The challenge is that the Steering Committee did not provide any proposals for definitions of what would be a so-called 'disproportionately' negative impact – which consequently makes a discussion on them so difficult. What qualifies an impact to be "disproportional"? There are neither criteria nor reasoning for the term. But we do not see in any way that the mere presence of impacts would necessarily result in a waiver of the measure.

On the contrary, document MEPC 76/7/62 (Solomon Islands) correctly points out that any measures to mitigate disproportionately negative impacts should not themselves introduce negative impacts. We support this submission and we explicitly support the conclusion, that the mitigation of negative impacts of measures should not negate the efficacy of the measure. For this reason, this delegation opposes document MEPC 76/7/63 (Antigua and Barbuda et al.) because we feel that it would factually undermine meeting the levels of ambition of the Initial Strategy.

With regards to document MEPC 76/7/64 (Argentina et al.), we are of the opinion that some elements towards the end of the submission may be further considered. But we are not entirely confident that they should be included in the Resolution text itself because that text needs to deal with the amendments. Instead, we think it may be more appropriate to include any respective text – as far as considered necessary by the Committee – as conclusions in the report of this meeting.

Having said this, Germany finds it important to keep consistency and that any wording does not divert from agreed language in both the Initial Strategy and in the Impact Assessment Procedure. We see little merit in developing a mechanism to address impacts as long as there is no consensus on the definition, namely the question which impacts are disproportionate, and as a consequence, no decision of this Committee if there are disproportionately negative impacts which need to be addressed. The Impact Assessment Procedure already specifies that impacts should be kept under review. Hence, we see no need to repeat this again. We would, however, support undertaking a lessons-learned exercise to improve the way in which impacts of mid-term measures will be assessed.

Thank you."

Statement by the delegation of India

"Indian delegation endorses comprehensive impact assessment submitted and appreciates the extensive work done by Steering committee and thanks all the co-sponsors for submission of their papers on this topic. However, we are of the view that there is still a lot more to be done by this Committee to have a more accurate assessment of the impact and also to have some fruitful follow-up measures on the issues raised in the report.

As identified within the 7 tasks, there is a clear indication of negative impacts on developing economies including SIDS and LDCs to various extents and that this impact is anticipated to be more severe with more stringent regulations. The report also seems to be in a dilemma between the Speed Reduction and Impact on inflation of commodities as the forced speed reduction would require additional vessels to compensate for the transport capacity loss. A 30% Speed reduction can result in an average 10% inflation which can be compounded by other seasonal factors. This certainly is a matter of serious concern, particularly for developing economies, and even raises doubts about the overall environment benefits of this strategy itself.

Another point of concern is the abatement costs for the ships ranging between 2% to 16% and in case of short sea up to 40% by 2030 to comply with the rules without speed reduction, indicating that the small-sized ships plying short-sea shipping routes would be more negatively affected and in some cases the increase in freight rates could be even 50% leading to modal and nodal shifts in such sectors from sea to other economically viable transport modes. It is for this fundamental reasoning that this delegation has always maintained the position that the environmental regulations beyond certain limits would be detrimental to a sector which is already the most environment-friendly.

We would also like to draw the attention of this Committee to the finding in the report that in 2020 alone, the COVID-19 pandemic resulted in an estimated 3.9% drop in global GDP and an effective loss of 255 million full-time jobs worldwide (UNCTAD, 2021). The developing and least developed countries, have been more severely affected by this downturn, compared to the developed economies, as the developing economies are less resilient to absorb the shock.

Mr. Chairman and distinguished delegates, the Covid-19 pandemic has placed an unprecedented crisis before the world community, with uncertainties still looming the global economy. Experts feel that it may take years for its recovery, if not decades. India strongly believes that Shipping as the carrier of world trade has a vital, proactive and compassionate role to play in this crisis and our first priority should be to revamp and rejuvenate the shattered world economy. In this attempt, it is the considered view of this delegation, that the Committee should not be hesitant to revisit our strategies and even realistically reassess our targets, because unprecedented crisis demands unprecedented corrective measures from a world leader. More so, when this worldwide total and partial shut downs going for almost a year now, would have automatically brought down the emissions level much lower than any regulations would have envisaged.

With regard to the Commenting paper MEPC 76/7/64, India shares the concerns expressed by the cosponsors of the submission Argentina, Brazil and others, particularly on the need to work for the development of a permanent mechanism to address the impact of IMO GHG measures on States, including to suggest feasible follow up corrective measures in this regard required time to time.

However, with regard to MEPC 76/7/62 and MEPC76/7/63, we do not think flag-wise exemption or waiver to the provisions of the Convention proposed in the submissions is feasible for the international shipping considering its international nature of the operation and particularly while dealing with a global issue with trans-boundary impacts. We urge the Committee to reiterate its commitment to provide mechanisms for facilitating information sharing, technology transfer, capacity-building and technical cooperation among member states, taking into account resolution MEPC.229(65) for Promotion of Technical Co-Operation and Transfer of Technology.

In conclusion the review is very important in the year 2026 to identify the effects of implementation of short-term measures on developing economies, SIDs, and LDCs, especially on the disproportionate negative impacts. India is of opinion that the review and the phased implementation would help and ensure that we do not tilt the delicate balance between decarbonisation and impact on developing economies."

Statement by the delegation of Indonesia

"Thank you Mr. Chair,

We would like to thank the Steering Committee, particularly to Mr. Harry Conway from Liberia and the Secretariat for the excellent work.
and

We would like to join Malaysia, and several member states to align ourselves with Argentina, and other co-sponsor of the document 76/7/64, particularly on paragraph 15 number 2.

We would also like to highlight that in this matter, there is a need to apply more of the common but differentiated principle... after all, our effort is the part of Paris Agreement and the efforts made by member states through the IMO must take into account of this principle.

In this case, Mr. Chair, the fact is, there are countries that have limited ability to adjust their shipping activities rather than imposing policy that tends to somewhat only providing challenge to the countries that have less ability to adjust their shipping activities... which will result not only to higher distribution cost but also higher price of goods and service in the end...and as this effort should be a common effort for common interest, therefore... we would like to strongly support the proposal of the establishment of a mechanism to help impacted countries to adjust and finally allowing them catching the expected level of effort. This way, Mr. Chair, the demand of ambition set on the Initial Strategy could be met with more positive cooperation.

Thank you."

Statement by the delegation of the Solomon Islands

"Thank you Chair,

I would like to thank the many delegations who have supported the Solomon Islands submission MEPC 76/7/62. Like them, we do not accept MEPC 76/7/63.

As far as the action points in 76/7/13 are concerned, we do not support point 4. Further, it is essential that points 5 and 6 are understood in the light of the following comments, which are also relevant to the document MEPC 76/7/64 by Argentina et al.

Chair, the impact assessment describes clearly its limitations and the fact that its different parts rest on different assumptions. 'Addressing' disproportionate impacts, requires identifying them first. And the impact assessment does not identify any disproportionate impacts, but merely states that there are impacts, and that they may differ.

The differences are illustrated by the intervention by the distinguished delegate of the Cook Islands. In our view, while many ships in Pacific domestic trade are indeed out-dated, most international shipping in the Pacific will be able to comply with the short-term measures, even at the higher ambition level that we would support. International shipping to our Islands is disproportionately expensive, not inefficient.

Thus, the impact assessment is not a basis for any concrete decision on specific mitigating actions. I suspect this is why so many supported our proposal for a 3-year review before considering mitigating actions.

In this context I would like to point out – as did my learned friend from Tuvalu – that the decision by MEPC 75 to approve the terms of reference for the impact assessment at the same meeting

as the draft amendments to MARPOL ANNEX VI, was not a decision to adopt the MARPOL amendments and mitigating actions together as a package. This was clearly the intention of some at that meeting, but it was not decided by the Committee.

I trust that you will confirm in your summing-up that the Committee has taken no such decision on a package approach.

We do not believe it would be useful to try to decide on a single mechanism for mitigating actions, so we cannot support the proposal in par 15.2 of the Argentina et al. paper. We do not think the other proposals in paragraphs 15.1 and 15.3 would be well-placed in the resolution. Not least because, their wording is not aligned with the wording of previous review decisions and with the text of the initial strategy.

The resolution for the adoption of the short-term measures should not be a vehicle for amending or reinterpreting the strategy."

Statement by the delegation of Tuvalu

"Thank you Mr Chair, Good evening to you and collegiate greetings to the rest of the distinguished delegates.

I simply would like to come back to the package issue advocated by the distinguished delegate of Argentina, who we do thank for the textual reference in MEPC75/18. I promise to be as brief as possible. Mr. Chair, may I direct you to the text itself of MEPC75 indicates that such an approach can be considered, but it does not say it has been approved, either specifically for a particular measure or for all GHG measures generally. MEPC75/18 talks about several and different "packages":

- .1 A package consisting of the "draft amendments to MARPOL Annex VI on reducing the carbon intensity of existing ships as set out in annex 1 to document MEPC 75/WP.3", and the "terms of reference for a comprehensive assessment of the possible impacts of the short-term measure on States". This is apparently considered as a decision by Argentina due to the term "with the understanding", but this is misrepresenting the meaning. It was considered as a package but it was not necessarily accepted as one.
- .2 A package is mentioned in 7.23 as advocated only by "many delegations". Does this mean the majority of those that "underlined that the draft amendments and the terms of reference for a comprehensive assessment of the possible impacts of the short-term measure on States should be approved as a package"? It has therefore NOT been approved as such, this was a request coming from only some.
- .3 In 7.35, another package is also advocated by "many delegations" consisting of the "draft amendments" and "the assessment of their impacts on States" - not the ToR but the assessment itself.
- .4 In that same paragraph 7.35, a different "several other delegations" stressed the importance of mitigation of any identified negative impact on the SIDS and LDCs, which shows the difference between mitigation and the impact assessment,

- .5 In 7.36 some unidentified "Delegations" thought that it would be important to "keep the possible impacts of the measure on States under review after adoption "

The decision part of the report in para 7.37 does not mention a package. The Committee approved the terms of reference and arrangements for conducting a comprehensive impact assessment of the short-term measure, set out in annex 6, and instructed the Secretariat to initiate the impact assessment in accordance with the approved terms of reference.

Incidentally, the term package can be found in other places in the MEPC75 report at 7.71 in relation to the IMRB proposal where it talks about a package of measures. In this case the report is using the term interchangeably with a "basket".

Clearly there is no commonly held definition of what is meant by the term "package approach" nor agreement to its use.

Tuvalu therefore ask that this is clarified by you or the secretariat so that we can continue to negotiate knowing the exact process that our work will follow.

Once again, holding the adoption of certain measure to the adoption of all measures, if this ever was the meaning of package, is a process that would need to be clearly approved by this house as the risk of extreme delays that would follow is probably not bearable by IMO in the current context.

Thank you Chair"

Statement by the delegation of United Arab Emirates

"UAE wishes to thank the Chair of the Steering Committee Mr Harry Conway from Liberia and we also extend our appreciation to all Member States and stakeholders contributed to this work. UAE supports the key outcomes of the Comprehensive Impact Assessment of the short-term measure and the action requested in Paragraph 11 of MEPC 76/7/13.

With regard to MEPC 76/7/63, this delegation agrees on the proposal for exemption based on the results of the comprehensive impact assessments showing negative impacts presented during this session. The proposal is also consistent with IMO initial strategy and in line with MEPC.1/Circ.885. We do understand that the document MEPC 76/7/62 (Solomon Islands) proposes that no general exemptions or waivers be adopted now, but that three years after entry into force of the short-term measure a review is performed. However, this delegation would seek clarification on how the Committee would address the impact before adopting of a measure?

With regard to MEPC 76/7/64. UAE is one of the co-sponsors and we therefore this delegation supports the document, in particular, to have part of actions requested in document MEPC 76/7/64 to be reflected in the draft MEPC resolution as set out in Annex I of MEPC 76/3."

Statement by the observer from Pacific Environment

"Thank you Chair. We would like to note that while the impact assessment represents a considerable amount of work in a short window of time, we have issues both with some of its conclusions and with how the process was conducted.

Civil society was not invited to participate in these discussions, and we are uncertain how the contractors collaborating with UNCTAD were picked to conduct these analyses.

Lacking the opportunity to engage earlier, we can only note that the contractors have solely analyzed the negative impacts from this measure. The same applies for the 21 case studies selected and the specific products more closely analyzed. Consequently the work contains a systemic negative bias, which appears to be due to the terms of reference set out for this process. In addition, the process of determining costs for the study is unclear. As an example, the study looked at a range of biofuel costs, then used a cost for biofuels that was higher than the range. This has the effect of over-estimating the negative economic consequences of a fuel switch.

If only negative impacts are considered, then a more ambitious measure that increases impacts automatically looks worse. Rather than offering a full picture of positive and negative impacts that both expand and deepen with increased stringency, we are left with only one half of the story.

This is especially odd as the prior impact assessments produced for this measure, ISWG-GHG 7/2/20 and ISWG-GHG 6/2/1, identify six areas of positive impacts, and per circular 885, the study should have built on this prior work. We urge member states to consider inclusion of positive impacts of measures in any future "lessons learned" process envisioned in 76/7/64.

Thank you!"

Statement by the observer from the Nautical Institute

"Chairman and esteemed delegates, The Nautical Institute and RINA jointly submitted paper MEPC 76/7/16. The content of this paper has been taken into account by the WG and in MEPC 76/WP4.

The Nautical Institute input to this process is the result of extensive consultation with our members through our Sea Going Correspondence Group; Seaways Magazine, and a joint webinar with RINA.

The Nautical Institute has a strong commitment to sustainable shipping.

The Nautical Institute wishes to thank all involved in the WG and CG process for taking our inputs on board. Our inputs focussed on safe operations including; precautionary override, clear authority to the Master and Officer of the Watch, ready access to reserve power from the bridge, risk of password access, respect for on board decisions, and reducing the impact on bureaucratic burden."

Statement by the observer from CLIA

"Thank you Chair,

CLIA would like to thank the Secretariat and the Chair Mr. Sveinung Oftedal for their efforts in leading the work in ISWG-GHG 8. This Intersessional meeting had an ambitious agenda with the approval of the supporting guidelines for the EEXI and CII measures occurring at MEPC 76.

CLIA submitted MEPC 76/7/34 for consideration by the Committee. This document addresses urgent issues with the CII calculation method for ship types which engage in extended periods of zero distance traveled, such as cruise passenger ships. More specifically, CLIA has found

that the current calculation method creates a perverse incentive for ships to travel a greater distance, and emit more GHG emissions, while improving the ship's performance with regard to carbon intensity.

CLIA believes it is very important to ensure that the implementation of short-term measures for each ship type contribute to all of the Levels of Ambition of the Initial IMO GHG Strategy. Ships should reduce absolute emissions while improving their CII performance. Evidence that carbon intensity and absolute emissions may not be linked should be taken seriously as implementation of a measure to improve carbon intensity should not come at the detriment of reducing absolute emissions.

MEPC 76/7/34 was not considered at ISWG-GHG 8 due to time constraints. CLIA requests that time be made available at this session during our discussion of the outcome of ISWG-GHG 8 so the time sensitive elements of our document can receive due consideration.

Thank you Chair.

If you need further information or details, please do not hesitate to reach out to me via email.

Thank you for your time."

Statement by the delegation of China

"China fully supports the adoption of G3 Guidelines submitted by the Working Group.

In the discussion, some delegations questioned the ambition of this set of reduction factors, or even argued they were lower than the "Business as Usual" (BAU) scenario. This misunderstanding was mainly caused by the misinterpretation of the CII reduction factor and the carbon intensity target of the Initial Strategy.

The CII reduction factor was set for individual ships, while the carbon intensity target in the Initial Strategy was for the overall international shipping. In reality, carbon intensity reduction in international shipping has been largely driven by the increasing ship size, but such economies of scale cannot be captured by CII mechanism. As shown in the 4th IMO GHG Study, Table 3 on page 24, the overall AER of international shipping in year 2018 was 22% lower than 2008, but the individual-based carbon intensity was just 9.3% lower. This indicates the fact that the CII mechanism will actually lead to a larger carbon intensity reduction in international shipping than the given CII reduction factors for individual ships.

In light of the above, we have the following views:

First, as specified in draft G3, the reduction factor as 11% in year 2026 is equivalent to 40% lower than year 2008. As the average ship size continues increasing, the overall carbon intensity of international shipping will have been higher than 40% by then.

Second, as shown in the 4th IMO GHG Study, again Table 3 on page 24, the CII reduction factor of individual ships from year 2012 to 2018 was 4.2%, with an annual reduction rate as 0.7%. In this regard, the annual reduction rate as 1% and 2% in the draft G3 are much higher than the BAU scenario.

To sum up, the draft G3 are based on the real carbon intensity performance of international shipping and are fully in line with levels of ambition set out in the Initial Strategy."

Statement by the delegation of the Cook Islands

"In the absence of a waiver clause linked to consideration of the impacts assessment already undertaken being agreed prior to EIF, We cannot consider and will not support any increase in the CII reduction levels proposed in the report of ISWG 8

Our stakeholder assessment already showed a wide range of significant negative impacts based on the CII ranges used in the comprehensive impact assessments under TOR determined by the Committee. These negative , and yes disproportionate impacts , could only be compounded further as the required updated further impact assessment would undoubtedly show .

Any increase in these reduction levels without a compensating waiver would place even more difficulties on what would already be an intolerable burden our ravaged and fragile economy that these amendments as currently drafted do not take into account and it would appear could not now do so before 2027 or 2028

To be clear, we support the reduction factors as proposed the G3 guidelines as shown in MEPC 76 WP 4 .and in the absence of a waiver could not reassess this position."

Statement by the delegation of India

"India supports adoption of 2021 Guidelines on operational carbon intensity reduction factors related to reference lines given in Para 100.6 of MEPC 76/WP.4.

We believe, the Reduction factor (Z%) for the CII relative to the 2019 reference line given in Table 1 of G3 Guidelines which was proposed by Chair of ISWG GHG 8 as a way forward is fair and pragmatic. The industry will be using AER as CII metrics for most ship types covering 85% of GHG emission. We are aware of limitations of AER in representing energy efficiency of individual ships. Between two sisterships, the ship doing more loaded distance will be shown as inferior. That means we shall be inferiorly rating that ship which is doing more efficient voyage planning and voyages.

The Energy Efficiency Technologies that are available now and being widely used can give limited improvement in propulsive efficiency of ships. Some may say there are technologies like wind assistance and air lubrication but ship owners have to think about technical feasibility and commercial viability for retrofit on existing ships. For example, each compressor for air lubrication requires around 200 KW, a ship with 6 compressors will require 1200 kW. Where will this power come from for an existing ship?

Putting higher reduction factors at this stage risks at least two things (1) increasing total GHG emissions because individual ships may be forced to do longer ballast voyages or carry less cargoes to keep their respective AER values down, and (2) safety risk associated with lower speed because to expect an existing ship to drastically reduce their AERs year by year the course left to the owners will be reduction of vessels speed.

The Chair's proposal to take decision on Phase 3 reduction rate during review before 2026 is very prudent since this will provide an opportunity to this Committee to understand AERs and other voluntary CII metrics data for which will be collected from 2023. The Committee will have data in hand to take mature and informed decision regarding Phase 3 reduction factors to ensure meeting or exceeding 2030 goals of IMO.

Thank you Chair."

Statement by the delegation of the Philippines

"Thank you Chair, and good day distinguished delegates.

We thank the Chair of the Intersessional Working Group on Reduction of GHG Emissions from Ships, Mr. Oftedal of Norway for his leadership and hard work, and all the participants for their cooperation resulting to the agreements reached relating to the technical guidelines supporting the EEXI and CII frameworks. We recall the long discussions, negotiation and the difficulties in coming up with the acceptable reduction factors for the required annual operational Carbon Intensity Index of ships, set out in Table 1, para 4.1 of Annex 4, in document MEPC 76/WP.4.

Mr. Chair, the Philippines takes this opportunity to re-affirm its commitment to the IMO initial strategy on the reduction of GHG emissions from ships and cognizant of the urgency and importance of adopting the short-term measures at this session, we strongly support the adoption of draft technical guidelines set out in the Annexes to document WP.4, including the reduction factors for the required annual CII in Annex4.

This delegation fully supports the phased approach, the annual rates for the 1st and 2nd phases and the strengthening of the rates for 2027- 2030 after the review as endorsed by ISWG-GHG 8. This may be ideal but in our view the most practical proposal. We believe this can meet the levels set out in the initial strategy as clearly explained by the distinguished delegate of China.

Despite knowing that these measures will be affecting the Philippine maritime industry and the country's economy, we cannot escape from the harsh reality that we have to do our part to achieve a delicate balance, after all, addressing climate change requires urgent action and addressing it now benefits us all including the future generations. Others may consider this as small steps, but for developing states like the Philippines which has limited resources, it is indeed a significant one.

We request that this statement be attached to the report of the Committee.

Thank you, Chair."

Statement by the delegation of the United Arab Emirates

"The United Arab Emirates wishes to express its thanks and appreciation to Mr. Oftedal (Norway) the Chair of the Intersessional Working Group on Reduction of GHG Emissions from Ships for the excellent work as a result we have the good outcome presented to this Committee.

As expressed by this delegation in various meetings of IMO that measures to reduce GHG emissions should be evidence-based as one of the guiding principle in the Initial IMO Strategy.

As agreed by the Working Group, UAE fully supports the outcomes of the Working Group to introduce a phase-in approach including the proposed reduction rates as follows:

1. Phase one (1% annually from 2020 – 2022);
2. Phase two (2% annually from 2023 – 2026); and
3. Phase three (undefined% annually from 2027 – 2030).

UAE believes that keeping the reduction rates undefined for Phase 3 is an appropriate approach at this stage for a number of reasons:

1. the selected reduction rates will achieve the levels of ambitions set out in the Initial Strategy, in particular the 2030 level of ambition of reducing carbon intensity of international shipping by at least 40% by 2030, compared to 2008;
2. It allows for gathering and analysing data as an evidence based approach to take further adjustment as appropriate; and
3. it falls within the scope of the levels of reduction assessed in the comprehensive impact assessment accompanying the draft amendments to MARPOL Annex VI on the short-term measure

Accordingly as mentioned by the Secretary-General in his opening remarks that the reduction factors will be further strengthened in the course of implementation and experience gained, taking into account the review of the short-term measure in the year 2026. Therefore, UAE continues to support the outcomes of the 8TH Intersessional Working Group."

Statement by the delegation of Venezuela

"Gracias Señor Presidente,

Permítame agradecer el esfuerzo realizado por el Señor Oftedal, Presidente del Grupo de Trabajo Interperíodo (ISWGGHG 8), para alcanzar una solución de compromiso, orientada al consenso en un tema complejo y del mayor interés para los Estados Miembros.

Venezuela se une a la República Popular China, la Federación de Rusia, la República Argentina y demás delegaciones que apoyan esta Propuesta de Compromiso, reflejada en el curso de acción 6, por considerarla realista y pragmática, ya que permite incrementar el rango de reducción, si ello es necesario, para cumplir con la Estrategia Inicial de la OMI; pero haciéndolo en la revisión prevista para el año 2025, cuando la data sobre la experiencia en el impacto de las medidas de corto plazo en los Estados en desarrollo se encuentre disponible.

Gracias Señor Presidente, solicito que este pronunciamiento conste en Acta."

Statement by the delegation of Portugal

"Dear Chair,

We are ready to support the adoption of the draft amendments to MARPOL Annex VI on carbon intensity of ships, as a stepping stone for a regulatory framework that needs to be further improved and made more ambitious.

Having said that, we would like to recall our disappointment with the decision of this Committee to leave the carbon intensity reduction rates for Phase 3 blank. This in our view does not guarantee the achievement of the 2030 target and introduces great uncertainty both for the business and the regulators.

We remain committed to future IMO work on reduction of GHG emissions from ships and believe that IMO should provide global solutions ensuring a level-playing field and the clarity for the industry. However, the discussions this week has yet again showed that the current IMO working arrangements reached their limit in dealing with the complex GHG issues in an effective and inclusive manner. We need to collectively find a solution that will allow us to deliver on effective mid-term measures in a timely manner."

Statement by the delegation of Belgium

First statement

"Thank you Chair and good day to all. Belgium welcomes and supports in principle the work on the Comprehensive Impact Assessment of the STM and we thank all that contributed to the work, including the drafting of the report.

With regard to the commenting papers, we agree, as mentioned in MEPC 76/7/64, that it is important to keep the impacts of the STM on States, especially SIDS and LDCs, under review.

In that sense, we can support the proposal in MEPC 76/7/62, which proposes to consider disproportionately negative impacts on States in the light of 3 years of implementation of the STM, offering the committee the necessary time to gain more insight and experience on any disproportionate negative impacts endured by the STM.

With regard to the development of a permanent mechanism, as proposed in para 15.2 of document MEPC 76/7/64, we believe that this is premature and we would support the interventions from France and Germany on how to further deal with the impact assessment.

In any case, we should ascertain that the overall climate ambition is not hampered, as was well explained by Tuvalu.

In the same reasoning, we cannot support the proposal in MEPC 76/7/63 to introduce general exemptions and waivers."

Second statement

"Thank you Chair and good day to all.

Belgium aligns itself with the intervention made by Portugal. We believe as well that the absolute minimum reduction rates needed to be in line with the 40% objective that we agreed upon in the initial strategy, is at least 22% by 2030.

We do acknowledge the very difficult nature of this discussion and we thank the Chair of the ISWG as well as all involved in making efforts trying to find a good compromise. However, we also need to stay true to the goals of the Initial GHG Strategy, not to mention the Paris Agreement temperature targets. In that sense we understand the interventions made by the USA and CAN.

Chair, in the interest of time, I will leave it at that, we have a lot of important work in front of us, as we will discuss the following days with regard to the mid and long-term measures and we are fully committed to continue our work together within the IMO.

Thank you Chair."

Statement by the delegation of Denmark

"Thank you Mr. Chair

First of all, we would like to thank the chair of the Intersessional Working Group, and not least all other Members States, for their hard work during the challenging discussions 2 weeks ago.

We acknowledge and appreciate the comprehensive efforts and trustful cooperation established in the Working Group, and we are cognizant of the difficulties in bridging divergent positions on this important issue.

That said, we align ourselves with the intervention made by Portugal, Germany, Belgium and others and **do not** agree to this outcome, highlighting the importance of being in line with the reduction targets in the strategy, especially the target of reducing carbon intensity by **at least** 40% in 2030.

At the same time, we want to proceed and move forward, and therefore we recognize that there is a majority supporting this outcome as the way forward.

We now have to continue our concerted efforts, working in the IMO spirit, to ensure that the IMO delivers on its promise and that international shipping makes its contribution to the reduction of greenhouse gas emissions from shipping.

Against this background, we now have an important, joint task before us when IMO initiates the review process in 2025.

Thank you Chair."

Statement by the delegation of Germany

"Thank you, Chair, for giving us the floor.

With regards to the Guidelines on the Operational Carbon Intensity Reduction Factors Relative to Reference Lines (G3), we had hoped that the Intersessional Working Group would have succeeded in agreeing on reduction factors that were in line with the short-term levels of ambition: reducing the carbon intensity by at least 40%, peaking emissions as soon as possible, and setting emissions on a pathway consistent with the Paris Agreement temperature goals. Because we need to consider all three levels of ambition, we are supportive of much higher numbers than at least 40% carbon intensity reductions in 2030, so e.g. the US proposal of 22 % by 2026. We came here with the aim of enabling shipping to make an appropriate contribution to the global effort to combat the climate crisis.

We came here ourselves to contribute to a meaningful implementation in line with the jointly agreed objectives of the Initial Strategy on reduction of GHG emissions from ships.

We acknowledge the efforts of all parties involved to find a common way forward. Unfortunately, we had to learn that we cannot take the next step united. This time it is not about where we necessarily want to go, but where we ought to be. The IMO Initial Strategy has clear minimum levels of ambition and science is clear that even more needs to be done.

Despite this, the current guidelines factually do not ensure that even the minimum levels of ambitions will be met. The carbon intensity reductions proposed by the Intersessional Working Group are in particular not sufficient to peak emissions as soon as possible, neither to set emissions on a pathway consistent with the Paris Agreement temperature goal. Hence, Germany cannot support of the proposed CII reduction rates for the G3 Guidelines.

However, we consider it essential that the Committee agrees on a workplan at this session and starts working on mid-term measures as soon as possible, in particular with a view that these now also need to contribute to achieving the 2030 levels of ambition, and setting shipping on a pathway consistent with the Paris Agreement temperature goal as soon as possible. And we have to accept majorities as they actually are.

Coming together is a beginning, working together is progress, and agreeing to each other is success. Germany would like to reiterate that we remain ready to work in the spirit of cooperation in the hope of more ambitious agreements in the future.

Thank you"

Statement by the delegation of the Netherlands

"We align with the statement of Portugal and EU countries that were before us

Although we very much prefer to finalize the package of the short-term measures at MEPC 76, we would find it difficult to agree with the proposed levels of reduction factors of the draft G3 guidelines as put forward in table 1 annex 4 by ISWG in their report.

There is not a lot to be gained by setting the standard at a mere 11% reduction by 2026 with a soft enforcement regime. Not having achieved the required reduction by 2026, will leave us with only 4 years to reach our goal of at least 40% in 2030 and on track of the 1.5 goal of the Paris agreement.

In light of this, we need higher reduction rates and at least 22% at the end of phase 3, and we can therefore not support the current proposal.

It is very important that the reduction factors will be set at a level for the world to witness that the shipping sector can deliver its share in the fight against climate change, and show that IMO is able to deliver on its own strategy."

Statement by the delegation of Sweden

"Thank you Mr Chair,

Sweden would like to associate itself with the statement made by Portugal. In addition, we would like to add that we are very concerned and disappointed that the Committee and the IMO has not been able to respond to what has already been agreed by the IMO in the initial strategy. The world is watching the IMO and the results of our deliberations are not encouraging. Sweden is disheartened and would have wanted to see a more ambitious outcome. Therefore, we can in principle support the proposal of the US, as we would also like to see more ambitious reduction rates. Sweden remains committed to the decarbonisation of shipping and of the Paris agreement, and the reduction rates we have in front of us are not enough. Therefore, we cannot support the adoption of G3. We kindly ask that this statement is annexed to the report. "

Statements by the delegation of Canada

First statement

"Canada supports the proposal for a phased approach to implementing the carbon intensity reduction rates. We can support setting numbers for the first two phases until 2026 at this time, with agreement on the rates from 2027 to 2030 to be set after the completion of the review.

However, as it stands now, Canada believes the reduction rates proposed in the report fall short of a carbon reduction pathway aligned with the Paris goals and we cannot support them.

The reduction rates agreed to this week should be in line with the goals of the Initial GHG Strategy. As such, in line with the position of the United States, Canada would like to state its preference for a carbon intensity reduction factor of 22% by 2026, which is very closely aligned with the impact assessment, with agreement on the rates for Phase 3 to be set after the completion of the review.

We are very hopeful that the Committee will come together and support a reduction rate that allows meaningful reductions from the short-term measure and put us on the right path to achieving the goals of the Initial IMO GHG Strategy and the Paris Agreement."

Second statement

"Canada cannot support this outcome, and we express our very deep disappointment that the reduction rates supported by the majority fall short of a carbon reduction pathway aligned with the Paris agreement. We believe there are many risks to this. But, we do accept that it has been agreed to.

Canada is, however, heartened by the acknowledgement by many delegations, including those who support this outcome, that it is indeed a compromise, that the short-term measure needs to move forward as quickly as possible, that we need to accelerate work on medium- and long-term measures, and that Phase 3 will need to be designed to meet the Strategy's goal of 40% by 2030.

Canada looks forward to working with other delegations in the spirit of these commitments that we have heard today."

Statement by the delegation of Jamaica

"Thank you Chair.

We want to commend the Chair of Working Group and the participants for the tremendous work done. We recognize that the report represent intensive discussions and compromises and we can support the report in general. However we have reservation relative to the CII reduction targets.

Chair, My country, Jamaica, has taken the firm position to support the levels of ambition adopted by the IMO in its *Initial IMO Strategy on Reduction of GHG Emissions from Ships*, as we recognize that shipping must play its role in contributing to the reduction of Carbon emissions and thus keep us on the 1.5 degree pathway.

To achieve the level of ambitions identified and in the present context, the 40% reduction targeted by 2030 in comparison with 2008, it is widely agreed that at least a 22% reduction is required between now and 2030.

Chair, while we can support the proposal for phased reduction, we are concerned that the ISWG report provides a proposal which is expected to produce only an 11% reduction by 2026, and fails to project for the remaining 4 years. This delegation is very uncomfortable with such a proposal. we believe it detracts from the transparency of the proposal in the Report, as well creates a high degree of uncertainty as to whether we will be on track to achieve the targets in the Initial Strategy.

The IMO has been allowed to regulate itself on the issues relating to climate change, and we believe has been doing a commendable job. We fear this status may be jeopardized if we do not ensure that credible targets are established and evaluated to ensure we are on track in

meeting our own objectives. We believe a proper evaluation as to our progress to achieve the level of ambition established for 2030 is not possible if some targets are missing. It is for this reason Chair that this delegation has a reservation in supporting .6 of the Group's recommendation.

Thank you Chair."

Statement by the delegation of the Marshall Islands

"Thank you Chair, and Good day to all.

At MEPC 68 in 2015, Tony de Brum asked the international shipping sector to confront the climate crisis as the defining challenge of our time. He reminded us that shipping emissions were expected to grow – and the Fourth IMO Greenhouse Gas Study confirms that emissions will increase by up to 50 percent by 2050 based on business as usual scenarios.

When we adopted the Initial GHG Strategy in 2018, the Marshall Islands made it clear that we, home to one of the largest registries in the world, would very publicly dissociate from an outcome that did not contain levels of ambition consistent with achieving the Paris Agreement temperature goals.

Since then, the IPCC 1.5° Report has confirmed that these ambitions are not enough. And we must strengthen them when we review the strategy as agreed later this year.

This week, we are considering the first concrete enactment of the strategy. It is clear that the short-term measures compromise text before us will not fulfil the vision and ambitions of the strategy. Aiming for an 11% reduction in carbon intensity by 2026 would leave the sector's emissions 751 mtCO₂e above where they need to be by 2030 to align with a 1.5C trajectory. And we cannot adopt measures that merely codify business-as-usual without losing credibility as the regulatory body for shipping.

The Marshall Islands is as always eager to find compromise solutions. But we cannot entertain proposals that do not adhere to what we have already agreed to in the Initial Strategy. Accepting this proposal would send a signal that the IMO does not hold itself accountable against the Paris Agreement and sets a dangerous precedent that policy design can be selective in which components of the Initial Strategy's level of ambition are used to inform their design and implementation.

With this being said, we are of the view that the MEPC must finalize the short-term measure this week so that the ISWG can begin to focus on the more pressing topics of carbon pricing and revising the Initial Strategy levels of ambition. If we wish to retain the credibility of the strategy as a whole, we must embark on defining mid-term measures that can increase the overall thrust of effort to keep in view the ambitions of the strategy.

Thank you, Chair."

Statement by the delegation of the Solomon Islands

"We regret the decision of the Committee to move forwards with a lower target than is required to live up to the levels of ambition set out in the agreed initial IMO strategy on reduction of GHG emissions from ships. These ambitions are already proving too low to keep us on the 1.5° pathway.

We ask the Committee to note that the level of ambition of the short term measure is not sufficient to ensure fulfilment of the ambitions agreed in the initial strategy, and that a significant gap remains that will have to be filled by other means. Since any delay would inevitably mean that more stringent means would become necessary later, we call upon the Committee to initiate discussion of mid-term measure immediately and task ISWG-GHG 9 to report to MEPC 77 with recommendations.

We recall the Secretary General's statement at the beginning of our session, emphasizing the importance of IMO to deliver on the implementation of the Initial GHG Strategy, which will ensure achieving the levels of ambition and providing a globally harmonized regulatory framework, in line with the Paris Agreement.

I would like to quote the UN secretary general António Guterres:

« When you're on the verge of the abyss, you need to make sure your next step is in the right direction. »

We are very concerned that a decision for a carbon intensity reduction factor without a specific recognition on its limitations, and the way to address them, would not be a step in the direction of the ambitions of the agreed Initial strategy on reduction of greenhouse gasses."

Statement by the observer from CESA

"As a technical adviser to the Organization this delegation will refrain from commenting on the level of ambition, but on technicalities and the editorial status of the CII Guidelines. CESA is concerned about the lack of clarity regarding the definition of transport work.

CESA recommends a supply-based approach to ensure consistency between all GHG instruments. Shipyards have to build and retrofit ships meeting EEDI and EEXI requirements in an optimal manner. Therefore, the technical capabilities of the vessel in the operational phase are governed by energy efficiency based on nominal capacity. Ships would have to be designed differently if they should be optimal from demand perspective and capacity utilization. In future the CII will be documented in accordance with the Data Collection System providing capacity information only. Consequently, also the estimation of reduction already achieved since 2008 should be performed in a consistent manner."

Statement by the observer from Pacific Environment

"Thank you Chair,

The news from my Arctic home has been exceptionally bad this year. We have learned that the Arctic is warming at three times the rate of the rest of the planet, and that sea ice is thinning at twice the rate previously estimated. My Arctic home is in desperate need of help if it is to remain an ecosystem of tremendous ecological, economic and cultural importance.

So far this week, none of the actions set forth by the IMO will provide any relief to the Arctic this decade, and without help this decade, the Arctic may be lost. The action that has potential to help the Arctic the most is an immediate reduction in black carbon emissions from shipping. Black carbon in the Arctic was to be discussed at this meeting, but now has been deferred to MEPC 77, more time lost, more damage done.

The recitals of both the Paris Agreement and decision 1/CP.21 ask of Parties, "when taking action to address climate change, to respect, promote, and consider their respective obligations to human rights, the right to health, the rights of Indigenous Peoples, local

communities, and so on. Please consider these words, and please do not delay action to protect my Arctic home, and the planet we all depend on and share any further.

Thank you Chair."

Statement by the delegation of Belgium

"Belgium agrees with the importance of R&D in ship design & technologies. Many initiatives are already ongoing and still much more is needed, as such we are pleased to see the positive signal from industry willing to invest in this.

What is even more important is the worldwide deployment of alternative fuels and corresponding investments in port and bunker-infrastructure. The IMRF is not addressing this important issue. A change of behaviour within the industry will be needed and the IMRF is not addressing this issue either. We have other submissions on the table that do address this and that we will discuss tomorrow and these proposals have many similarities with the IMRF, which makes it difficult to deal with these proposals separately.

It seems more efficient, also in terms of IMO resources, to deal with the various proposals in one go. Especially because we urgently need to prioritize and develop mid- and long-term measures."

Statement by the delegation of India

"India is not against IMRB, but fully recognises the urgent need for more aggressive R&D to avail clean and sustainable fuels for the maritime sector. Our delegation thankfully takes note of the of the various related papers in this meeting, endeavouring to address many of our concerns on the legal, administrative and enforcement mechanisms suggested for the creation and management of the proposed IMRF. We therefore appeal to this Committee to kindly take note of the clarifications and affirmations reflected in those submissions, particularly regarding the management and equitable distribution of fund, taking cognizance of the historical background of anthropogenic emission trajectory and member state commitments under UNFCCC to address the genuine concerns of the developing nations. Hence, we believe that the base for any further discussions on IMRB shall be the existing Resolution of this Committee MEPC.229 (65) for Promotion of Technical Co-Operation and Transfer of Technology, duly recognizing CBDR-RC.

Mr Chairman, no amount research activity is going to resolve the global issue of climate change unless the benefits of such activities are rightfully shared with those hold the key to emission control of the future world order. ie. the developing nations accounting for more than 2/3rd of world population. As has pointed out in our cosponsored paper MEPC 76/7/20, more than 70% of the research projects today are concentrated in a specific geographical sector of the world. Unless this forum demonstrates some bold efforts to mitigate this social, economic and technological imbalance among member states, IMRF cannot have an all-inclusive way forward.

Regarding the commenting papers, we agree with most of the contentions in 7/58 from Turkey, particularly on the need for this Organization to work along with other UN Bodies, taking advantage of the dedicated global funds for Climate change under UNFCC in line with Article 9, 10 and 11 of the Paris Agreement.

Regarding the detailed justification in MEPC 76/7/7 from ICS and others, particularly on the contention that there won't be any administrative burden on the member states as the fund collection can be smoothly undertaken through the existing Fuel oil Data Collection System of

the IMO, we would like to cite the attention of this Committee to Regulation 22A.11 which clearly mandates that the Organization shall maintain an anonymized database without possibility to identify a specific ship and the data shall be accessed for analysis and consideration purposes only. Hence the proposal to utilise DCS for collection of levy shall not be in line with understanding among the member states while adopting the DCS regulations that the data will not be used for any commercial purposes."

Statement by the delegation of the United Arab Emirates

"The United Arab Emirates would like to thank all submitters under this agenda item. UAE in supports to establish an International Maritime Research and Development Board (IMRB), as one of the candidate short-term measures which is categorized in the IMO initial strategy to coordinate and oversee R&D activities and efforts. However, we do not support the structure proposed in MEPC 76/7/7 because it does not comply with the structure and functioning of IMO.

UAE believes that the proposal lacks clear SMART strategy (Specific, Measurable, Achievable, Realistic or Relevant and Time-bound) towards the proposed R&D projects. Therefore, UAE agree with Turkey that this matter need to be evaluated.

As clearly indicated in document MEPC 76/7/20 which UAE is one of the co-sponsor that the proposal entails significant legal challenges. During MEPC 75, UAE raised a concern related to the legal aspect on this matter. Of course IMO can introduce such amendment in MARPOL Annex VI if Parties agreed to do so. However, the concern raised was not related to the amendment but rather towards the aim of the amendment. To be clear on the legal aspect which this delegation seek clarification, UAE would like to raise the following question: could IMO, through its Legal instrument, establish Non-Governmental Organization (NGO) and provides funds for the operation of such NGO?

At this stage Mr Chair, this delegation does not support the proposal in MEPC 76/7/7."

Statement by the delegation of Belgium

"We support the suggested work plan in document MEPC 76/7/10. If we are to make the transition to zero-emission shipping, clarity and certainty needs to be given to the sector, since this transition involves considerable investments, that need to be planned well in advance (this was mentioned as well in document MEPC 76/7/2). We therefore share the view of the cosponsors of document MEPC 76/7/15 that we urgently need to start the work on mid- and long-term measures at next ISWG GHG 9 and that at least one of the measures should incentivize a fuel transition well before 2030. As was raised in document MEPC 76/7/42, we need to prioritize those measures that will make the transition happen.

During yesterday's discussion, we heard some concerns with regard to the legal aspects, therefore we would like to refer to our document MEPC 76/7/11. The intent of this submission is to give Member States objective information and clarity on the legal possibilities for adoption of MLT measures at the IMO. Main conclusion is that nothing in the IMO Convention of 1948 is preventing member states from adopting MLTM.

With regard to the candidate measures, and I am referring to submissions MEPC 76/7/2, MEPC 76/7/15, MEPC 76/7/12, MEPC 76/7/42, we support to forward these proposals for further discussion at the next session.

We support the establishment of a Standing Technical Group on reduction of GHG emissions as proposed in document MEPC 76/7/9. If we are to make progress with the current workload and respect the timelines agreed in the programme of follow-up actions of the initial strategy, more intersessional work will indeed be needed.

Furthermore, and as mentioned in document MEPC 76/7/10, a revised GHG strategy is planned to be adopted by the Committee in spring 2023. This brings me to document MEPC 76/7/12 and I would like to echo the need to start the work on the revision of the strategy in 2021, as agreed in the Initial Strategy and its Programme of follow-up actions."

Statement by the delegation of Germany

"Thank you, Chair, for giving us the floor.

We were happy to see that there are many submissions that emphasize the necessity to start the transition towards renewable fuel in this decade. These submissions came from across country groups, industry interests and civil society. We welcome the recognition by Argentina et al. in MEPC 76/7/20 that "ultra-low or zero-emission" ships need to enter the fleet this decade. This gives us confidence that we can take our next step in greater unity.

Nevertheless, the consideration, development and agreement of measures will take time, also because the mid-term measures are likely to have larger impacts on States and we will need to pay more attention to assessing and addressing disproportionately negative impacts on States, as appropriate, and to ensure that no State is left behind.

Therefore, it is necessary to start work on the consideration of mid-term measures at the first opportunity, which is ISWG-GHG 9. In the view of this delegation, the Committee needs to progress effectively with the next package of measures and we think that a structured approach which ensures that Member States can continue to go forward together will support such a desire – that's why we are a co-sponsor of the work plan proposal in MEPC 76/7/10.

In addition, we propose that ISWG-GHG 9 considers the proposal of the Marshall Islands and Solomon Islands (MEPC 76/7/12) and invite other delegations to submit proposals with a similar ambition.

Concretely, Mr. Chair, this delegation:

- Supports the Work Plan proposed in MEPC 76/7/10 with the understanding that the measures need to be in force 'around the middle of this decade' in line with MEPC 76/7/15 so that phase 2 and 3 need to be condensed.
- Recommend to include the consideration of MEPC 76/7/12 (Marshalls and Solomon Islands) in the ToR of ISWG-GHG 9.
- Naturally supports MEPC 76/7/15, especially the proposal to have a dedicated work stream on the consideration of mid-term measures and a work stream on LCA, as well as in principle 76/7/2 and 76/7/42.
- Welcomes the support of ICS et al in MEPC 76/7/39 for starting the discussion on MBMs as soon as possible, although we think that the guiding principles of the Initial Strategy should be used.
- Supports the proposal for a standing Technical Group in MEPC 76/7/9 as we would like to highlight the importance to finally establish solid working arrangements for our future work on the reduction of GHG emissions from international shipping."

Statement by the delegation of India

"We thank all submitters of documents related to this topic.

India is a cosponsor of MEPC 76/7/10. We support use of this document as a basis for further development of Work Plan.

We support what was said by Argentina, Brazil, Chile, UAE and others with respect to Impact assessment and inclusion of Phase IV Follow up to keep the impact of measures under review as per MEPC.1/Circ.885.

We wish to highlight an important short-term measure which needs urgent attention of the Committee - development of robust lifecycle GHG/carbon intensity guidelines for all types of fuels. Unless this is developed the stakeholders like shipowners, engine makers, shipbuilders and Energy supply companies will find it difficult to take any decision on making a choice among low- and zero carbon fuels. It will also impact mid-term measures work. We are aware this issue will be discussed at ISWG GHG 9 and hopefully will be concluded soonest.

We cannot support Standing Technical Group on GHG related issues. We have serious constraints with allocation of resources and would support Working Group and CG being used for the Work arrangement.

Developing zero carbon fuels has quickly become shipping's big priority from an industry-wide perspective. But this process will not be driven by the shipping industry – this process implies a global energy transition where shipping will be one of multiple industries vying for scalable and cost-competitive zero-carbon fuel solutions. Investment in the land-based energy infrastructure that is required to decarbonize shipping holds the Key. In the light of this, we suggest that MEPC requests Member States, Observers to ensure participation of experts from all stakeholders e.g. low and zero carbon energy production, storage and distribution sectors, propulsion system based on renewable energy etc. during discussion on prioritized mid-term measures.

We cannot discuss MBM now. It can be discussed as a part of mid-term measures along with other identified measures like Innovative Emission Reduction Mechanism(s) given in Initial Strategy.

Thank you Chair".

Statement by the delegation of the Cook Islands

"Let no one be left behind

Well we have been left behind in what thus far has been a transparently unfair process ..

Alleviation of the significant negative impacts it has been shown we will face with the short term measure is clearly work still in progress and must now be urgently be addressed.

The priority of the ISWG or whatever mechanism you decide going forward is to determine through its TOR what DISPROPORTINATE is and this prior to EIF of the amendments we will vote on tomorrow. Without this we can have no confidence in the process going forward for determining and addressing medium /long term impacts.

Clearly the Committee will also instruct the ISWG to reflect on the lessons learnt initiative in the same time frame.

Whatever is decided in regard to funding of R & D or an MBM all monies raised through a levy must stay in sector.

As to the call for a punitive MBM by way of a levy; this appears to be calling for shipping, the facilitator of world trade and an essential element in delivering the SDG's to be used and milked as a cash cow. It is not the role nor should it be the function of this Organisation to raise funds to disburse to another agency to cover the shortfalls of parties failure to meet their financial commitments under another Conventions "Agreement "

As to the suggested levels of a carbon tonne levy , the \$100 tonne carbon suggested would mean a cost in excess of \$300 per tonne of fuel , that is over a 55% increase to be passed on through higher freight charges .With no recognition by the Committee or alleviation through a "waiver" of the burden of negative impacts that it has been shown in the SC Stakeholder Assessment that we will already face from the short term measure we simply could not absorb such increases . For these reasons the proposed measure is not supported."

Statement by the delegation of Indonesia

"Indonesia would like to support document MEPC 76/7/10 as the base documents... for the discussion of short and mid term measures, including the comment by Argentina and several delegates to include impact assessment.

For the *Proposal on the establishment of a universal mandatory greenhouse gas levy*, we are of the view that this mechanism needs further consideration on potential impact specially to developing states.

Noting that it is said in the document that the potential impact is short to medium term and it is said to be minor, I am afraid that is not the case for Indonesia that has over 14 millions GT of ships conducting international navigation.

Mr. Chair, it is our commitment to support the GHG emission reduction, particularly regarding the matter that is also include measure to help impacted countries, as discussed earlier... because it provides a balance, based on positive cooperation, between the measures and the impacts.

At the moment we are afraid we don't really understand how the levy taken from the shipping operation, while some, if not many of them are also developing states, to generate funding to help developing states...

In addition, the nature of this levy to be universal somehow contradicts with implementation of CBDR principle

Therefore, Mr. Chair, we cannot support the proposal at this stage.

We would request this comment to be reflected in the report.

Thank you, Mr. Chair."

Statement by the delegation of Vanuatu

"Thank you Chair

The initial IMO strategy on reduction of GHG Emissions from ship prescribes that the impacts on States of a measure should be assessed and taken into account as appropriate before

adoption of the measure. Particular attention should be paid to SIDS among others. It also prescribes that Disproportionately negative impacts should be assessed and addressed, as appropriate.

Now it is our understanding that since Disproportionate negative impacts have not been defined, the negative impacts evidenced in the current impact assessment on short term measure will not be taken into account before adoption of the MARPOL ANNEX VI amendments when to us any negative impact will be disproportionate considering the vulnerability of our country.

Chair and distinguished delegates, we can only hope that IMO Member States will give priority as to the urgent need to define what is a disproportionate negative impact before the entry into force of MARPOL ANNEX VI amendment that will be adopted shortly.

And why are we stressing on this point now??

Because this element is even more important when we are now considering MBM for the shipping sector with an entry level by 2025 of \$100 per tonne carbon dioxide equivalent on heavy fuel which would translate into a 300 USD cost increase per tonne of fuel since sadly one tonne of Marine heavy fuel is roughly 3 tonnes of CO₂ per tonne of fuel consumed.

Fuel price would therefore increase from 500 to 800 USD and it is where we strongly believe that we urgently need to define what is a disproportionate negative impact on states before the entry into force of the MARPOL Annex VI amendments to give SIDS certainty that such disproportionate impact will be considered in the future.

Indeed, Fuel costs represent as much as 50-60% of total ship operating costs and such fuel price increase by roughly 60% by 2025 will have undoubtedly disproportionate negative impact on SIDS at least during an interim period until the MBM becomes mature and provoke the expected transition as long as the technology is indeed available.

Chair, Distinguished Delegates we all know that the maritime industry will NOT absorb the fuel cost increase of an MBM but will pass on the cost increase to end consumers i.e. the people of Vanuatu (but also all over our vulnerable region as well) which already have to cope with one of the highest freight cost in the world.

Will they be compensated? Absolutely not! And that is the pb which must be considered before adopting any MBM the funds of which will not go to the people of Vanuatu to absorb goods cost increase which are almost all coming by the Sea... since we rely up to 95% on international shipping.

Last but not least as a cosponsor of MEPC 76/7/10 we support the way forward suggested and the establishment of a Permanent Group."

ITEM 12

Statement by the observer from CSC

"Chair, CSC cannot allow the meeting to end without expressing its extreme concern at developments this week and we would like this statement added to the record of the meeting. The agreement on an "urgent" short-term measure to reduce shipping's carbon intensity that contains no enforcement mechanism and a level of ambition deliberately calibrated to be the same as business as usual is not a serious response to the climate crisis. The 1.5% annual improvement required by the measure is nowhere near the 7% annual improvement needed to keep warming within the Paris Agreements 1.5C temperature goal, and will, we are sure, be met with concerned confusion by the outside world.

We are similarly concerned by this organisation's continued consideration of the IMRB proposal and its absurd 70 cents/tonne price on carbon. The proposal should have been discarded at this meeting, but instead you allow it to live on and take up valuable time that would be better used to discuss real measures aimed at urgently driving down ship climate pollution. We welcome of course the plan to further consider the RMI/Sols proposal for \$100/tonne levy at GHG9, but this proposal and other measures will need to be fast tracked if they are to play a meaningful part in bringing ship emissions down on a trajectory consistent with the PA's 1.5C temp goal.

Finally Mr Chair, the failure this week, after over ten years of deliberation, to even consider the issue of BC is a tragic abdication of this organisation's responsibility to the Arctic and the world. The Arctic is melting 3 times faster than the rest of the world and the burning of dirty ship fuel is accelerating this and ice melt. Consideration of this issue should be a priority urgent issue for the IMO.

Before I finish Chair we would also like to object to the way in which NGO interventions have been treated during this meeting. We understand the pressures that the meeting is under but to take our cards only at the end is to marginalise us in a way that will not help this organisation address the climate crisis or indeed the many other environmental challenges facing the shipping industry. We hope this is the last time this happens."

Statement by the observer from FOEI

"Chair,

FOEI, WWF, Pacific Environment and Greenpeace are concerned with the lack of agreement or even consideration of meaningful action to see international shipping's efforts contributing to reversing the climate crisis in the Arctic.

We are concerned about the "business as usual" approach, where the short term carbon intensity requirement merely reflects spontaneous efficiency improvements, and in the absence of any new regulation is nowhere near the 7% annual improvement required to bring ship emissions down in a manner consistent with the Paris Agreement's temperature goals.

Further, MEPC 76 failed to address important items on its agenda, most strikingly the reduction of black carbon emissions -a potent short-lived climate forcer - from ships, and measures to eliminate scrubber discharges impacting sensitive areas including the Arctic.

MEPC76 was the IMO's last chance to show that its actions on the climate impacts from shipping (CO2 and black carbon) have any relevance to meeting the goals of the Paris Agreement before the COP26 in Glasgow.

Some relatively simple changes to the way the virtual (and potentially, in person) meetings are conducted could save time, and make the process of IMO decision making more consistent and transparent, such as a simple polling mechanism.

Chair, Civil society organisations have felt particularly aggrieved throughout this meeting. We have followed your request and made every effort to shorten and limit our interventions, only to have them admitted after the discussion, or excluded altogether as there was no time available."