INTERNATIONAL MARITIME ORGANIZATION

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Agenda item 16

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REPORT OF THE MARINE ENVIRONMENT PROTECTION COMMITTEE ON ITS EIGHTY-FIRST SESSION

LIST OF ANNEXES

1 INTRODUCTION – ADOPTION OF THE AGENDA

1.1 The eighty-first session of the Marine Environment Protection Committee was held from 18 to 22 March 2024, chaired by Dr. H. Conway (Liberia). The Vice-Chair of the Committee, Mr. H. Tan (Singapore), 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 81/INF.1.

Use of hybrid meeting capabilities

1.3 The Committee noted that the plenary sessions would be conducted in hybrid mode, i.e. remote participation enabled, having recalled that C 129 had agreed to extend the trial period for using hybrid facilities until C 132, scheduled for July 2024, where a final decision regarding the use of hybrid facilities was expected to be made by the Council.

1.4 In this connection, the Chair recalled that, as per Article 30 of the IMO Convention, the Committee must adopt its own rules of procedure and, in line with the decisions of C 129, the Committee agreed as follows:

.1 as per the current Rules of Procedure of the Committee and the *Interim guidance to facilitate remote sessions of the Committees during the COVID-19 pandemic* (MSC-LEG-MEPC-TCC-FAL.1/Circ.1), a Member State will be considered "present" for the purposes of Rule of Procedure 28(1) if they are either physically present in the Main Hall or are registered and participating remotely online using the hybrid system; and

.2 any voting by secret ballot will take place in person only.

Opening address of the Secretary-General

1.5 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

Attacks on merchant ships in the Red Sea and the Gulf of Aden

1.6 A large number of delegations expressed concerns about the safety and welfare of seafarers, freedom of navigation, threats to the marine environment and stability of the global supply chain resulting from the attacks by Houthi rebels on commercial ships in the Red Sea and the Gulf of Aden. In this context, the Committee was informed of the tragic loss of three seafarers – two from the Philippines and one from Viet Nam – who had been killed in an assault involving anti-ship missiles launched by Houthi rebels against the Barbados-registered dry bulk carrier **True Confidence** on 6 March 2024. The attack had also resulted in several crew members being injured, some of them seriously.

1.7 Delegations that took the floor offered their condolences to the families of the seafarers lost, extended their support to those injured and impacted by the incident, and conveyed their sympathy to delegations directly affected, in particular those of the Philippines and Viet Nam. These delegations strongly condemned the heinous acts against commercial ships which threatened the lives and livelihoods of seafarers, maritime security and the marine environment, and called for their immediate cessation.

1.8 Having highlighted the devastating impact of these attacks on innocent seafarers, many delegations called for the immediate and unconditional release of the **MV Galaxy Leader** and its crew who had been held hostage since the ship's hijacking by Houthi rebels on 19 November 2023.

1.9 The Committee was also informed that the Belize-flagged general cargo ship **MV Rubymar**, which had sustained severe damage following a missile attack by Houthi rebels on 18 February 2024 during its transit through the Bab-el-Mandeb, had almost fully sunk and posed a subsurface impact risk to other ships transiting or operating in the area as the bow of the ship was still above the sea surface while the stern rested on the seabed. Furthermore, leakage of fuel had already resulted in an oil slick and the cargo of 41,000 tonnes of fertilizer presented a significant threat of further environmental harm should it be discharged into the marine environment.

1.10 The delegation of Yemen condemned the attacks against ships in the Red Sea, stressed that they had been carried out by Houthi terrorist militia, and expressed its appreciation for all international efforts aimed at preventing further attacks. In addition, they highlighted the efforts of the UN to provide support to refugees, as well as initiatives by UNEP and IMO to enhance environmental protection. In this connection, the delegation stressed the need for further international assistance as the Government of Yemen was unable, without support, to manage any possible negative environmental consequences following the sinking of the **MV Rubymar**.

1.11 In the context of negative consequences to the environment, many delegations also noted that, due to the security situation in the Red Sea, numerous ships were forced to navigate significantly longer routes in order to guarantee the safety of seafarers and to maintain the global distribution of essential goods, thereby increasing fuel consumption and harmful emissions.

1.12 Many delegations highlighted the adoption by the United Nations Security Council of resolution 2722 (2024), underscoring the importance of the exercise of navigational rights and freedom of vessels of all States in the Red Sea, in accordance with international law, condemning the attacks on commercial ships and demanding their cessation.

1.13 In addition to the attacks originating from the territory of Yemen, the Committee was informed by the delegation of Bangladesh that the Bangladesh-flagged **MV Abdullah**, while en route from Mozambique to the United Arab Emirates, had been hijacked by Somali pirates on 11 March 2024, approximately 500 nm off the coast of Somalia, with all 23 crew members taken hostage. Subsequently, the ship had been taken to and anchored in the territorial waters of Somalia. The safety and well-being of the 23 Bangladeshi crew remained unknown, but they were assumed to be under severe duress. In this regard, many delegations expressed grave concern for the crew and called for their immediate and unconditional release.

1.14 Having condemned the attacks on commercial ships, which constituted unacceptable violations of international law and the IMO Convention, many delegations commended the actions taken to protect freedom of navigation and the safety of seafarers through increased numbers of naval patrols and other assistance to merchant ships. In this connection, several delegations mentioned the EUNAVFOR ASPIDES defensive operation to restore maritime security in the region. Additionally, several delegations highlighted a successful operation of the Indian Navy on 16 March 2024, resulting in the release of 17 crew members of **MV Ruen**, who had been detained by pirates since December 2023, as well as the arrest of 35 pirates.

1.15 In commending the Secretary-General's initiatives in relation to the ongoing threats to commercial shipping in the Red Sea and the Gulf of Aden, in particular his communication with all relevant parties and his emphasis on the well-being of seafarers, the Committee invited the Secretary-General to continue his efforts in this regard.

1.16 Statements on the matter were made by the delegations of Australia, the Bahamas, Bangladesh, Belgium (on behalf of the EU Member States), Belize, Canada, Egypt, France, Germany, Greece, India, Israel, Japan, Kingdom of the Netherlands, the Philippines, Poland, Romania, Saudi Arabia, Spain, Ukraine, the United Kingdom, the United Republic of Tanzania (on behalf of the signatories of the Djibouti Code of Conduct), the United States and Yemen, as well as by the observer from ICS (on behalf of BIMCO, CLIA, ICS, INTERCARGO, INTERTANKO, IPTA and WSC), the full texts of which are set out in annex 16. In addition, the delegations of Finland, Iceland, Italy, Luxembourg, Portugal and Sweden requested that the Committee note their support for the statement by Belgium. Statements were also made by the delegations of Brazil, China, the Cook Islands, Croatia, Cyprus, Denmark, Ghana, Indonesia, Islamic Republic of Iran, Ireland, Jamaica, Kenya, Latvia, Malta, Mauritius, Monaco, Nepal, New Zealand, Norway, Panama, Peru, the Philippines, the Republic of Korea, Singapore, Somalia and the observers from EC and ITF.

1.17 Subsequently, the delegation of Belize made an additional statement, providing the Committee with an update on the situation regarding the **MV Rubymar**, specifically that, while the owners had been advised that the ship had been properly covered under its insurance policy on the date of the incident, the insurance company now appeared to be avoiding its responsibilities with the proper application of coverage for removal of the wreck and therefore delaying salvage operations. The delegation of Belize highlighted, inter alia:

.1 that the flag Administration was satisfied that the owners had taken appropriate steps and efforts to address the matter;

.2 the need to ensure that ships transiting the region were properly covered by insurance and, if necessary, to press insurance underwriters to fulfil their obligations in the event of a similar incident; and

.3 that the Government of Belize extended its support to the request of the Yemeni delegation for international assistance regarding the removal of the **MV Rubymar** from the seabed in order to mitigate the humanitarian and environmental impacts of the incident, to extract all remaining cargo from the ship, and to restore the safe navigation for ships transiting the Red Sea.

As requested, the full text of the statement by the delegation of Belize is set out in annex 16.

Adoption of the agenda

1.18 The Committee adopted the agenda (MEPC 81/1) and agreed to be guided in its work, in general, by the annotations contained in document MEPC 81/1/1 and by the provisional timetable (MEPC 81/1/1, annex 2, as may have been amended).

Credentials

1.19 The Committee noted that the credentials of 123 delegations attending the session were in due and proper form.

2 DECISIONS OF OTHER BODIES

2.1 The Committee, having noted the decisions and outcome of MSC 107 (MEPC 81/2), C 129 (MEPC 81/2/1), TC 73 (MEPC 81/2/2), LC 45/LP 18 (MEPC 81/2/3) and C 130 and A 33 (MEPC 81/2/6) with regard to its work, took action as indicated below.

Remaining outcome of MSC 107

2.2 The Committee recalled that MEPC 80 had considered urgent issues emanating from MSC 107 (MEPC 80/17) concerning matters related to the review of the parts of the Strategic Plan under its purview; the draft recommended associated protective measures (APMs) within a particularly sensitive sea area (PSSA) in the North-Western Mediterranean Sea; the application of the Committees' method of work and the work programme.

Draft MSC-MEPC guidelines for oil fuel sampling procedures

2.3 With regard to the draft MSC-MEPC guidelines for sampling procedures, the Committee agreed to consider them under agenda item 5 (Air pollution prevention) (see paragraph 5.2).

Mutual understanding on flashpoint documentation

2.4 The Committee noted that MSC 107 had endorsed a mutual understanding concerning flashpoint documentation (MSC 107/20, paragraph 6.23), subject to the entry into force of SOLAS regulation II-2/4.2.1.6, and had invited MEPC to note this understanding and to take action as appropriate.

2.5 In this context, the Committee recalled that appendix V (Information to be included in the bunker delivery note (BDN)) of MARPOL Annex VI included the following provision:

> "The flashpoint (°C) specified in accordance with standards acceptable to the Organization, or a statement that the flashpoint has been measured at or above 70ºC".

2.6 Subsequently, the Committee noted the decision by MSC 107 and agreed that the mutual understanding endorsed by MSC 107 was consistent with appendix V of MARPOL Annex VI regarding information to be included in the bunker delivery note and that no further action was necessary.

Joint MSC-FAL circular on Guidelines for the use of electronic certificates

2.7 The Committee recalled that FAL 40 had approved *Guidelines for the use of electronic certificates* (FAL.5/Circ.39/Rev.2) and noted that FAL 47 had agreed, inter alia:

.1 that the Organization would benefit from having one single set of guidelines for all certificates which would be easier to maintain and update, and further agreed to propose to MSC the development of a joint MSC-FAL circular on guidelines for the use of electronic certificates (FAL 47/22, paragraph 21.9);

.2 to inform other committees of the Organization about this decision (FAL 47/22, paragraph 21.9); and

.3 to request the Secretariat to prepare the draft text of a relevant joint circular, to be considered at FAL 48 and by MSC at a future session, subject to the concurrence of MSC (FAL 47/22, paragraph 21.10).

2.8 In this regard, the Committee noted that MSC 107:

.1 had approved *Guidelines on the use of electronic certificates of seafarers* (MSC.1/Circ.1665), in conjunction with the adoption of related amendments to the STCW Convention and Code (MSC 107/20, paragraph 13.22); and

.2 having noted that FAL 47 had proposed the development of a joint MSC-FAL circular on guidelines for the use of electronic certificates, had (MSC 107/20, paragraph 13.23):

.1 agreed that any guidelines to be developed should address electronic certificates and documents comprehensively; and

.2 invited MEPC and LEG to consider what certificates and documents provided in the instruments under their respective purviews could be addressed in future joint guidelines and advise MSC and FAL accordingly.

2.9 In this context, the Committee had for its consideration document MEPC 81/2/7 (Liberia et al.), proposing that any comprehensive guidance should be issued either as a FAL circular or a joint FAL-LEG-MEPC-MSC circular, rather than an MSC-FAL circular, pending discussion at LEG.

2.10 Following consideration, the Committee agreed that the guidance to be developed should be issued as a joint FAL-LEG-MEPC-MSC circular. Having noted that the use of electronic record books under MARPOL and the BWM Convention and electronic bunker delivery notes (eBDNs) was covered by separate guidance (resolutions MEPC.312(74), MEPC.372(80), and MEPC.1/Circ.795/Rev.8, respectively), the Committee also agreed that, with regard to instruments under its purview, the joint circular should only address certificates at this stage, namely those listed in the *List of certificates and documents required to be carried on board ships, 2022* (FAL.2/Circ.133-MEPC.1/Circ.902-MSC.1/Circ.1646-LEG.2/Circ.4) and the List's future updates.

2.11 In this connection, the Committee recognized that further work would be required if documents such as electronic record books and eBDNs were to be included in the scope of the joint guidance at a later stage.

2.12 Subsequently, the Committee invited MSC, FAL and LEG to note the discussion and outcome of this matter.

Outcome of C 129

2.13 The Committee agreed to consider the outcome of C 129 concerning the continuation of hybrid meetings (MEPC 81/2/1, paragraph 2) and digitization of all certifications required under all IMO conventions (MEPC 81/2/1, paragraph 6) under agenda items 13 (Application of the Committees' method of work) (see paragraphs 13.1 to 13.2) and 14 (Work programme of the Committee and subsidiary bodies) (paragraphs 14.1 to 14.5), respectively.

Outcome of A 33

Assembly resolution A.1192(33) concerning dark fleet operations

2.14 The Committee recalled that A 33 had (A 33/D, paragraphs 6(b).4 and 6(b).5):

.1 adopted resolution A.1192(33) on *Urging Member States and all relevant stakeholders to promote actions to prevent illegal operations in the maritime sector by the "dark fleet" or "shadow fleet"*;

.2 noted concerns expressed by some delegations regarding the clarity of and legal rigour in the use of the term "sanctions" in the first operative paragraph of the resolution; the importance of the Organization adhering to its mandate; and that the matter of potential criminalization of seafarers encountering illegal operations had not been addressed fully within the scope of the resolution; and

.3 noted, in particular, that proposals for amendments to resolution A.1192(33) could be submitted to the relevant Committees (i.e. MSC, MEPC and LEG), including on matters raised at A 33 in this regard.

2.15 In this context, the Committee had for its consideration document MEPC 81/2/5 (India), proposing the inclusion of an additional operative paragraph in resolution A.1192(33), concerning preventing inadvertent criminalization of seafarers.

2.16 During consideration, the Committee noted broad support for the inclusion of a provision in resolution A.1192(33) to ensure the safety and security of seafarers inadvertently encountering illegal operations.

2.17 Many delegations were of the view that LEG was the appropriate IMO body to consider the proposed amendment and the document should therefore be referred to LEG. In this context, some delegations expressed the view that careful consideration was required to avoid criminalizing seafarers inadvertently encountering illegal operations while also enforcing relevant laws and regulations, and that this proposal could be considered in conjunction with LEG's work to develop guidelines on fair treatment of seafarers detained on suspicion of committing [maritime] crimes. Some delegations expressed the view that, because dark fleet operations also represented a ship safety issue and related to the safety of seafarers, this matter should also be considered by MSC.

2.18 In addition to the importance of avoiding criminalization of seafarers, a number of delegations reiterated their concern with regard to the increasing numbers of illegal ship-to-ship transfers and the associated environmental risks. One delegation stressed that environmental risks were further increased because ships involved in illegal operations were more likely to be poorly maintained, to be improperly registered or to carry insufficient insurance coverage.

2.19 Following consideration, the Committee invited MSC and LEG to note the discussion and views expressed (see paragraphs 2.14 to 2.18 above) and forwarded document MEPC 81/2/5 to MSC and LEG for further consideration and action as appropriate, having noted that amendments to resolution A.1192(33) would require adoption by the Assembly.

Consolidated audit summary reports (CASRs)

2.20 The Committee noted that A 33 had requested MSC and MEPC to consider the consolidated audit summary reports (CASRs) containing lessons learned from seven mandatory audits completed in 2021 and 2022 (Circular Letter No.4771) and, in due course, to advise the Council of the outcome of their consideration.

2.21 In this regard, the Committee agreed to follow previous practice and, subject to a concurrent decision by MSC 108, instructed the III Sub-Committee to consider the CASRs of the audits completed in 2021 and 2022 and report to the Committees on the outcome of its consideration.

Ongoing military conflict between the Russian Federation and Ukraine and its effects on international shipping and the marine environment

2.22 The delegation of Ukraine made a statement describing the negative environmental consequences on the Black Sea and the Sea of Azov after more than two years of continuous military conflict and calling on the international community to unequivocally condemn the actions of the Russian Federation and demand the immediate cessation of hostilities. Specific points made by the delegation of Ukraine included, inter alia:

.1 the widespread negative environmental consequences resulting from, among other things, missile launches from naval assets, active munitions, contamination from aircraft, missile wreckage, radioactive and chemical waste, mining and underwater explosions, the deliberate release of toxic substances, the destruction of vital onshore infrastructure such as the Kakhova Hydroelectric Power Plant, and the deliberate release of invasive aquatic species into Ukrainian territorial waters;

.2 the readiness of Ukraine to join practical efforts with Black Sea States to mitigate the negative environmental consequences and the commendation of the recent agreement between Bulgaria, Romania and Türkiye to clear floating sea mines;

.3 the importance of protecting the environment in times of war, in keeping with the relevant obligations and principles of international humanitarian law; and

.4 the commitment of Ukraine to upholding international obligations aimed at saving the marine environment.

As requested, the full text of the statement by the delegation of Ukraine is set out in annex 16.

2.23 Subsequently, in supporting the intervention made by the delegation of Ukraine, many delegations expressed the following views:

.1 the aggression by the Russian Federation against Ukraine was condemned in the strongest possible terms as a violation of Ukraine's territorial integrity and sovereignty, including its territorial waters, and as a threat to the Ukrainian people;

.2 the ongoing armed aggression was a breach of international law and of the UN Charter, undermined global security and stability, caused massive loss of life and injury to civilians, and had serious global consequences in the form of increased food insecurity and rising energy prices;

.3 the conflict posed a threat to the safety and security of international shipping, seafarers, freedom of navigation, and the marine environment in the Black Sea and the Sea of Azov region;

.4 solidarity with Ukraine and its people was expressed;

.5 the Russian Federation should immediately cease its military action and unconditionally withdraw all its military forces and equipment from the entire internationally recognized territory of Ukraine, fully respecting the territorial integrity, sovereignty and independence of Ukraine;

.6 the negative environmental consequences in the Black Sea as a result of the conflict were severe and would last for many years; and

.7 the IMO Assembly had condemned the Russian Federation's armed aggression against Ukraine in resolution A.1183(33) on *Impact of the Russian armed invasion of Ukraine on international shipping*.

2.24 As requested, the statements by the delegations of Belgium (on behalf of the EU Member States), Canada, France, Germany, Ireland, Italy, Japan, Lithuania, Luxembourg, Norway, Spain, the United Kingdom and the United States are set out in annex 16. In addition, the delegations of Croatia, Cyprus, Denmark, Finland, Iceland, Latvia, Kingdom of the Netherlands, Portugal and Sweden and the observer from EC requested that the Committee note their support for the statement by Belgium.

2.25 Following discussion, the delegation of the Russian Federation made a statement which, inter alia, expressed the following views:

.1 discussing this matter went beyond the mandate of the Organization as a whole and of the Committee in particular;

.2 the Russian Federation categorically rejected all unfounded accusations made against it, including those alleging the intentional destruction of civilian infrastructure and pollution of the environment in the region;

.3 delegations that spoke had once again demonstrated double standards in their statements instead of applying the same approaches to all ongoing conflicts and the protection of the civilian population;

.4 the Ukrainian Armed Forces had shelled civilian and other critical infrastructure, including attacks on Russian tankers and civilian transport vessels and in the Black Sea, causing civilian losses and negative environmental consequences; and

.5 the Ukrainian Armed Forces had attacked drilling platforms, had mined maritime spaces and the Ukrainian seaports, and were responsible for the destruction of the Kakhovskaya Hydroelectric Power Plant and the resulting tragic consequences, and that the UN Secretary-General had characterized such attacks as crimes under international humanitarian law and called for their immediate cessation.

2.26 In response to the statement by the Russian Federation, the delegation of Ukraine made an additional statement, which, inter alia:

.1 characterized the statement of the delegation of the Russian Federation as yet another demonstration of manipulative actions typical for that delegation over the years, and advised that, while speaking of "politization", members of that delegation should study carefully the provisions of Assembly resolution A.1183(33);

.2 recalled that in 2022 the International Law Commission had adopted "Draft principles on protection of the environment in relation to armed conflicts", which prohibited the use of methods and means of warfare that were intended to cause widespread, long-term and severe damage to the environment, and which stated definitively that the law of armed conflict, including principles and rules of distinction and precautions must be applied to the environment, with a view to its protection;

.3 informed the Committee that over 4,000 reports had been made in the last year of direct environmental effects as a result of the Russian Federation's illegal military actions; and

.4 informed the Committee that Ukraine was working with various IGOs, including the United Nations Environment Programme, and NGOs to document such reports with a view to seeking reparations and restoration for restoring both the natural and built environments during the post-war reconstruction period.

As requested, the full text of the statement by the delegation of Ukraine is set out in annex 16.

2.27 Prior to the consideration of the draft report by the Committee, the delegation of Ukraine made an additional statement regarding an attack by the Russian military on the Dnipro Hydroelectric Power Plant (HPP) in the Zaporizhzhia region of Ukraine, which had occurred on the night of 22 March 2024. The delegation of Ukraine highlighted, inter alia, that:

.1 if successful, the attack could have caused another ecological catastrophe, with double the environmental impact of the earlier destruction of the Kakhovka HPP dam in 2023, and with far-reaching consequences for the regional environment and marine ecology, as well as for inland and international shipping;

.2 while conditions at the Dnipro HPP dam remained critical and the immediate aftermath of the attack included a substantial oil product leakage into the river, the situation was so far manageable;

.3 the attack was part of a broader assault targeting energy facilities and residential areas across Ukraine, designed to spread fear and create large-scale malfunctions in Ukraine's energy system; and

.4 urgent action was needed to bring those responsible to justice and halt the actions of the Russian Federation before they caused havoc further into Europe and global environmental disasters.

As requested, the full text of the statement by the delegation of Ukraine is set out in annex 16.

3 CONSIDERATION AND ADOPTION OF AMENDMENTS TO MANDATORY INSTRUMENTS

3.1 The Committee was invited to consider and adopt proposed amendments to:

.1 the Ballast Water Management (BWM) Convention, concerning the use of electronic record books;

.2 article V of Protocol I of MARPOL, concerning revised reporting procedures for the loss of containers; and

.3 MARPOL Annex VI, concerning low-flashpoint fuels and other fuel oil-related issues; marine diesel engine replacing a steam system; and accessibility of data and inclusion of data on transport work and enhanced granularity in the IMO Ship Fuel Consumption Database,

and to adopt the draft MEPC resolution on *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*, in conjunction with the adoption of the aforementioned amendments to regulation 13.2.2 of MARPOL Annex VI on a marine diesel engine replacing a steam system.

3.2 The Committee noted that the text of the aforementioned amendments had been circulated, in accordance with articles 19(2)(a) of the BWM Convention and 16(2)(a) of MARPOL, to all IMO Members and Parties to the BWM Convention and MARPOL by Circular Letter Nos.4742, 4743 and 4744 of 27 and 28 July 2023, respectively.

Draft amendments to the BWM Convention

3.3 The Committee recalled that MEPC 80 had approved draft amendments to the BWM Convention concerning the use of electronic record books (MEPC 81/3, annex), with a view to adoption at this session.

3.4 The Committee considered a proposal by the delegation of Norway that additional language be added to the draft text of regulation B-2, clarifying that an electronic recording system referred to in regulation B-2 would be considered an electronic record book, provided the electronic recording system were approved by the Administration on or before the first renewal survey carried out on or after 1 February 2025, but not later than 1 February 2030. The delegation suggested that this proposal would harmonize the text of this regulation with similar language used in regulation 12.6 of MARPOL Annex VI. The Committee agreed to refer the proposed text to the Drafting Group for consideration when finalizing the text of the amendments to this regulation.

3.5 Having noted that no other comments on the draft amendments had been submitted, the Committee confirmed their contents, subject to editorial improvements, if any.

3.6 The Committee confirmed the contents of the requisite MEPC resolution; agreed that the entry-into-force date of the amendments would be 1 October 2025; and instructed the Drafting Group to prepare the final text of the resolution, taking into account the proposal by the delegation of Norway (see paragraph 3.4), together with the amendments to the BWM Convention, for the Committee's consideration and adoption.

Draft amendments to article V of Protocol I of MARPOL

3.7 The Committee recalled that MEPC 80 had approved draft amendments to article V of Protocol I of MARPOL concerning revised reporting procedures for the loss of containers (MEPC 81/3/1, annex), with a view to adoption at this session.

3.8 Having noted that no comments on the draft amendments had been submitted, the Committee confirmed their contents, subject to editorial improvements, if any.

3.9 The Committee, having considered a relevant proposal by the delegation of Japan, agreed to change the entry-into-force date set out in the covering resolution to 1 January 2026, to align it with the entry-into-force date of the associated amendments to chapter V of SOLAS, to which the amendments to article V of Protocol I of MARPOL referred.

3.10 Further to the above, the Committee confirmed the contents of the requisite MEPC resolution; agreed that the entry-into-force date of the amendments to article V of Protocol I of MARPOL would be 1 January 2026; and instructed the Drafting Group to prepare the final text of the resolution, together with the amendments to Protocol I of MARPOL, for the Committee's consideration and adoption.

Draft amendments to MARPOL Annex VI

3.11 The Committee recalled that MEPC 80 had approved draft amendments to MARPOL Annex VI, concerning low-flashpoint fuels and other fuel oil-related issues; marine diesel engine replacing a steam system; and accessibility of data and inclusion of data on transport work and enhanced granularity in the IMO Ship Fuel Consumption Database (MEPC 81/3/2, annex), with a view to adoption at this session.

3.12 In this regard, the Committee considered documents MEPC 81/3/5 (IMarEST) and MEPC 81/3/6 (Liberia et al.), proposing modifications to the text of the draft amendments to regulation 13.2.2. The Committee noted that document MEPC 81/3/5 also proposed consequential modifications to the draft MEPC resolution on *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* (see paragraph 3.1).

3.13 The Committee agreed with the proposal to change the word "Party" to "Administration" in the last sentence of the draft amendments to regulation 13.2.2, having noted that this was a more accurate reflection of the role of the Administration in this context.

3.14 In considering the respective proposals, the majority of delegations that took the floor had a preference for the proposal set out in document MEPC 81/3/6, in particular as it clarified that the provisions set out in the amendments to regulation 13.2.2 would only apply to those instances where a Tier II rather than a Tier III replacement engine had been installed after the entry-into-force date of the amendments, and would not apply retroactively.

3.15 In addition to the above, a number of delegations were of the view that the intention of the proposed modifications to the final sentence of regulation 13.2.2 submitted by IMarEST (MEPC 81/3/5) was already covered by the previous sentence in the regulation.

3.16 The Committee also considered a further proposal by one delegation, combining elements of the proposals from both documents as a third option. Whilst noting that a preference remained for the proposal in document MEPC 81/3/6, the Committee agreed that this text could potentially be improved by including elements of the second proposal set out in document MEPC 81/3/5. The Committee therefore referred the text proposed in document MEPC 81/3/6 to the Drafting Group to incorporate into the amendments and instructed it to consider including elements from the proposal in document MEPC 81/3/5 to further improve the text.

3.17 The Committee requested the Secretariat to include the new wording when updating the unified interpretation to regulation 13.2.2 agreed at MEPC 80 (PPR 10/18/Add.1, annex 8), for inclusion in a future revision of the *Unified interpretations to MARPOL Annex VI* (MEPC.1/Circ.795), when the corresponding amendments to regulation 13.2.2 of MARPOL Annex VI had entered into force.

3.18 The Committee also considered document MEPC 81/3/4 (India et al.), proposing modifications to the "Information to be submitted to the IMO Ship Fuel Oil Consumption Database", set out in appendix IX to MARPOL Annex VI, in particular to modify the type of data collected when the ship was under way and to include more granularity in the data on total fuel consumption when the ship was not under way.

3.19 Whilst some delegations did not agree with the proposal, given the level of detail that would be required by the modified text, the majority of delegations that took the floor supported the proposal, noting that the improved granularity would result in a more complete set of data for purposes of the Carbon Intensity Indicator (CII) calculation, and the Committee therefore agreed to incorporate the text into the amendments.

3.20 The observer from ICS noted that document MEPC 81/3/4 appeared to propose changes to the Ship Fuel Oil Consumption Database (DCS) aimed at supporting improvements to the CII system that sought to refocus the system on fuel used for propulsion. Having noted that several groups had informally advocated for similar alternative CII concepts, but no proposal had yet been submitted to MEPC on this matter, they stated that it was unclear how other consumed fuel would be accounted for, and how the alternative CII concept would address the problems within the current system. Rather, in their view, it would be better to establish an interim system for data collection to have in place by 1 January 2026 that would fully reflect the data needs of the agreed scope of changes to the CII system or, alternatively, to revisit the proposal by BIMCO (MEPC 80/6/11), to move the DCS proforma out of MARPOL into a set of guidelines, thereby allowing for more rapid amendments of the scope of DCS.

3.21 The Committee agreed to a proposal by one delegation to include language in the covering resolution inviting early application of the amended data-collection provisions in appendix IX from 1 January 2025.

3.22 In respect of the amendments to regulation 27 of MARPOL Annex VI (MEPC 81/3/2), in particular the permission granted to the Secretary-General to share data with analytical consultancies and research entities under strict confidentiality rules, the observer from ICS noted that the effectiveness of the confidentiality arrangements would depend on the wording of the proforma non-disclosure agreement and requested that a copy of the proforma be shared with delegates for comment.

3.23 The Committee confirmed the contents of the requisite resolution, agreed that the entry-into-force date of the amendments MARPOL Annex VI would be 1 August 2025 and instructed the Drafting Group to prepare the final text of the requisite MEPC resolution, together with the amendments to MARPOL Annex VI, for the Committee's consideration and adoption, taking into account the decisions on the various proposals.

Draft MEPC resolution on *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*

3.24 The Committee recalled that MEPC 80, in approving the draft amendments to regulation 13.2.2 of MARPOL Annex VI on a marine diesel engine replacing a steam system, had deferred consideration of the draft *2023 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* to this session, with a view to adoption in conjunction with the adoption of the associated amendments to regulation 13.2.2 of MARPOL Annex VI (MEPC 81/3/3, annex).

3.25 Having considered the modifications to the Guidelines and covering MEPC resolution proposed in document MEPC 81/3/5 (IMarEST), the Committee:

.1 agreed to include the proposed template providing a uniform format for information to be submitted to the Organization by the Administration of a Party which accepted that the installation of a Tier III non-identical replacement engine was not feasible (MEPC 81/3/5, annex) as an appendix to the Guidelines, with section 6 related to contact details removed, noting that this information was available in the contacts points module of GISIS;

.2 agreed that this information be included as a new tab in the MARPOL Annex VI GISIS module and requested the Secretariat to initiate the required modifications in the module, accordingly; and

.3 agreed to the modifications to the text of paragraph 2 of the covering resolution for the adoption of the Guidelines, and the addition of a new operative paragraph encouraging the use of the template in respect of the decisions taken prior to entry into force of the amendments.

3.26 The Committee confirmed that the date in the title of the Guidelines would be changed from 2023 to 2024, as they would be adopted at this session, and instructed the Drafting Group to prepare the final text of the requisite MEPC resolution, together with the Guidelines, for the Committee's consideration and adoption.

Establishment of the Drafting Group

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

.1 prepare the final text of the draft amendments to the BWM Convention concerning the use of electronic record books, using document MEPC 81/3 as the basis;

.2 prepare the final text of the draft amendments to article V of Protocol I of MARPOL concerning revised reporting procedures for the loss of containers, using document MEPC 81/3/1 as the basis;

.3 prepare the final text of the draft amendments to MARPOL Annex VI, using document MEPC 81/3/2 as the basis, taking into account documents MEPC 81/3/4, MEPC 81/3/5 and MEPC 81/3/6;

.4 prepare the final text of the draft MEPC resolution on the *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*, using document MEPC 81/3/3 as the basis, taking into account document MEPC 81/3/5; and

.5 assess the implications for capacity-building and technical cooperation and assistance of the amendments submitted for adoption at this session, based on the procedures and criteria for identification of capacity-building implications set out in annex 2 to the Committees' Guidelines (MSC-MEPC.1/Circ.5/Rev.5), and advise the Committee as appropriate.

Report of the Drafting Group

3.28 Having considered the report of the Drafting Group (MEPC 81/WP.5), the Committee approved it in general and took action as indicated below.

Amendments to the BWM Convention

3.29 The Committee considered the final text of the draft amendments to the BWM Convention concerning the use of electronic record books (MEPC 81/WP.5, annex 1), and adopted the amendments by resolution MEPC.383(81), as set out in annex 1.

3.30 In adopting resolution MEPC.383(81), the Committee determined, in accordance with article 19(2)(e)(ii) of the BWM Convention, that the adopted amendments would be deemed to have been accepted on 1 April 2025 unless, prior to that date, more than one third of the Parties had notified the Secretary-General that they objected to the amendments, and would enter into force on 1 October 2025, in accordance with article 19(2)(f)(ii) of the Convention.

Amendments to Article V of Protocol I of MARPOL

3.31 The Committee considered the final text of the draft amendments to article V of Protocol I of MARPOL concerning revised reporting procedures for the loss of containers (MEPC 81/WP.5, annex 2), and adopted the amendments by resolution MEPC.384(81), as set out in annex 2.

3.32 In adopting resolution MEPC.384(81), the Committee determined, in accordance with article 16(2)(f)(iii) of MARPOL, that the amendments would be deemed to have been accepted on 1 July 2025 (unless prior to that date not less than one third of the Parties or Parties the combined merchant fleets of which constituted not less than 50% of the gross tonnage of the world's merchant fleet had communicated to the Organization their objection to the amendments) and would enter into force on 1 January 2026, in accordance with article 16(2)(g)(ii) of MARPOL.

Amendments to MARPOL Annex VI

3.33 The Committee considered the final text of the draft amendments to MARPOL Annex VI concerning low-flashpoint fuels and other fuel oil related issues; marine diesel engine replacing a steam system; and accessibility of data and inclusion of data on transport work and enhanced granularity in the IMO Ship Fuel Consumption Database (MEPC 81/WP.5, annex 3), and adopted the amendments by resolution MEPC.385(81), as set out in annex 3.

3.34 In adopting resolution MEPC.385(81), the Committee determined, in accordance with article 16(2)(f)(iii) of MARPOL, that the amendments would be deemed to have been accepted on 1 February 2025 (unless prior to that date not less than one third of the Parties or Parties the combined merchant fleets of which constituted not less than 50% of the gross tonnage of the world's merchant fleet had communicated to the Organization their objection to the amendments) and would enter into force on 1 August 2025, in accordance with article 16(2)(g)(ii) of MARPOL.

Draft MEPC resolution on *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*

3.35 The Committee considered the final text of the draft MEPC resolution on *2024 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* (MEPC 81/WP.5, annex 4), and adopted it by resolution MEPC.386(81), as set out in annex 4.

Assessment of capacity-building and technical cooperation and assistance implications

3.36 Having considered the part of the Drafting Group's report addressing the implications of the amendments adopted at this session for capacity-building and technical cooperation and assistance (MEPC 81/WP.5, paragraphs 29 to 34), the Committee:

.1 noted the view of one delegation highlighting the need for more substantial consideration of training needs of seafarers by the various IMO bodies to ensure effective implementation of any amendments to standards and requirements;

.2 noted that there might be capacity-building implications and a need for technical cooperation or assistance in relation to the draft amendments to MARPOL Annex VI, notably in respect of the draft amendments to the data-collection and reporting requirements in appendix IX; and

.3 in light of the above, invited the Technical Cooperation Committee (TCC) to note the outcome of the aforementioned assessment.

3.37 In considering the Group's recommendation to urge Member States and international organizations to propose an alternative mechanism at a future meeting concerning the assessment of capacity-building implications (MEPC 81/WP.5, paragraph 36.6), the Committee noted that a proposal was expected to be submitted to MSC 108 to amend the relevant section of the *Organization and method of work of the Maritime Safety Committee and the Marine Environment Protection Committee and their subsidiary bodies* (MSC-MEPC.1/Circ.5/Rev.5) pertaining to the assessment of capacity-building and technical cooperation and assistance implications for draft amendments that, if agreed, would then be sent onwards to MEPC for concurrent approval. The Committee therefore agreed that no further action was required, pending the outcome of the discussion on this matter at MSC 108.

Instructions to the Secretariat

3.38 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 which required action by the Parties to the BWM Convention and MARPOL.

4 HARMFUL AQUATIC ORGANISMS IN BALLAST WATER

4.1 The Committee recalled that MEPC 80 had envisaged the re-establishment of the Ballast Water Review Group at this session (MEPC 80/17, paragraph 14.16.4) and noted that the proposed terms of reference for the Group were set out in document MEPC 81/WP.2.

4.2 In the interest of time, the Committee agreed to refer all documents it had for consideration under this agenda item (see paragraphs 4.3 to 4.7) to the Ballast Water Review Group for detailed consideration, in accordance with the respective terms of reference (MEPC 81/WP.2), with the exception of documents concerning the following matters:

.1 approval of ballast water management systems (BWMS) that made use of Active Substances; and

.2 information on the type approval of BWMS and other information relating to ballast water management.

4.3 With regard to the documents referred directly to the Ballast Water Review Group, both submitted to this session and deferred by MEPC 80, the Committee noted that they were addressing the following issues:

.1 list of provisions and instruments for revision and/or development under the Convention review stage of the experience-building phase (EBP) associated with the BWM Convention (MEPC 81/4/2, MEPC 81/4/5, MEPC 81/4/7, MEPC 81/4/9, MEPC 81/INF.6 and MEPC 81/INF.9);

.2 guidance on the application of the BWM Convention to ships operating in challenging water quality conditions (MEPC 81/4/4, MEPC 81/4/8 and MEPC 81/4/11);

.3 guidance on the temporary storage of grey water or treated sewage in ballast tanks (MEPC 81/4/6 and MEPC 79/4/8); and

.4 modifications to BWMS with existing type approval (MEPC 81/4/3, MEPC 81/4/10, MEPC 81/4/12 and MEPC 81/INF.13).

BWM Convention review

4.4 With regard to the list of provisions and instruments for revision and/or development under the Convention review stage of the EBP associated with the BWM Convention, the Committee had for its consideration the following documents, which were referred to the Ballast Water Review Group:

.1 MEPC 81/4/2 (Australia), containing the report of the Correspondence Group on Review of the BWM Convention re-established by MEPC 80, including the draft list of provisions and instruments for revision and/or development under the Convention review stage of the EBP associated with the BWM Convention, which needed to be finalized and approved by the Committee for use as the basis for the development of a package of amendments to the Convention;

.2 MEPC 81/4/5 (India), providing information on issues which might be considered during the BWM Convention review discussions on the type approval criteria for land-based and shipboard testing of BWMS, based on the analysis of the BWMS type approval and System Design Limitation (SDL) data;

.3 MEPC 81/4/7 (INTERTANKO), commenting on the report of the Correspondence Group (MEPC 81/4/2), highlighting challenges encountered by ships engaged in short voyages in water bodies shared by Parties to the BWM Convention, where compliance with the Convention became impractical due to the inability to conduct ballast water exchange or treatment, and suggesting a review of the Guidelines (G7) and BWM.2/Circ.63 to address the challenges of short voyages;

.4 MEPC 81/4/9 (Japan), providing comments on the report of the Correspondence Group (MEPC 81/4/2), proposing the frequency and the type of sampling and analysis of ballast water discharges at flag State surveys to ensure BWMS met regulation D-2, and that the framework of State control (PSC) under the BWM Convention should not be changed;

.5 MEPC 81/INF.6 (Australia), presenting the main findings from a study undertaken in Australia to evaluate the performance of BWMS fitted on board ships that visited Australian ports between 2021 and 2023, following the previous report submitted in 2021 through document MEPC 76/INF.56, which had provided data on the use and effectiveness of BWMS in relation to the requirements of the BWM Convention; and

.6 MEPC 81/INF.9 (IMarEST), presenting information on challenges encountered when deploying portable BWMS as contingency measures, to facilitate discussion on how these challenges could be considered and addressed during the BWM Convention review process.

Application of the BWM Convention to ships operating in challenging water quality

4.5 With regard to the development of guidance on the application of the BWM Convention to ships operating in challenging water quality conditions, the Committee had for its consideration the following documents, which were referred to the Ballast Water Review Group:

.1 MEPC 81/4/4 (Australia et al.), proposing interim guidance on the application of the BWM Convention to ships operating in challenging water quality (CWQ), which reflected the intersessional work of a number of Member States and international organizations with a view to finalizing the guidance at this session, taking into account recent discussions of the Ballast Water Review Group;

.2 MEPC 81/4/8 (Japan), commenting on document MEPC 81/4/4, providing information on alarms of BWMS reported by the Japanese shipping industry, and proposing that information be gathered on the experience of ships that would have implemented the interim CWQ guidance; and

.3 MEPC 81/4/11 (INTERTANKO), providing information on INTERTANKO's database of reports from ships that encountered challenges when using BWMS in ports with CWQ and details on the intention to open and present the database to interested stakeholders.

Temporary storage of grey water or treated sewage in ballast tanks

4.6 With regard to the development of guidance on the temporary storage of grey water or treated sewage in ballast tanks, the Committee had for its consideration the following documents, which were referred to the Ballast Water Review Group:

.1 MEPC 81/4/6 (Japan et al.), providing draft guidance for the temporary storage of treated sewage and grey water in ballast water tanks, taking into consideration related documents drafted for and discussed in prior sessions, and seeking to incorporate such considerations into a revised guidance for the Committee's consideration and action as needed; and

.2 MEPC 79/4/8 (China), discussing the feasibility of temporary storage of grey water and treated sewage (effluent) by a sewage treatment plant in ballast tanks, proposing issues that needed further consideration when developing guidance on such temporary storage, and providing possible amendments to the BWM Convention, so as to provide information for consideration in developing a BWM circular and amendments to the BWM Convention.

Modifications to BWMS with existing type approval

4.7 With regard to modifications to BWMS with existing type approval, the Committee had for its consideration the following documents, which were referred to the Ballast Water Review Group:

.1 MEPC 81/4/3 (Germany et al.), presenting information regarding necessary modifications to a BWMS with existing type approval and proposing amendments to the *Guidance for Administrations on the type approval process for ballast water management systems* (BWM.2/Circ.43/Rev.1) that would support approval of BWMS modifications;

.2 MEPC 81/4/10 (Japan), providing comments on the proposals in document MEPC 81/4/3, suggesting matters to keep in mind when considering necessary tests for each BWMS modification;

.3 MEPC 81/4/12 (Republic of Korea), providing comments on the proposals in document MEPC 81/4/3, intended to provide harmonized guidance to facilitate the evaluation of modifications to a BWMS with existing type approval; and

.4 MEPC 81/INF.13 (BEMA), providing additional information to that contained in documents MEPC 80/INF.18 and MEPC 81/4/3 regarding modifications to a BWMS with an existing type approval, including information about the level of detail in the documentation required to obtain type approval and the associated implications for the ability to implement BWMS modifications and for BWMS performance.

Approval of BWMS that make use of Active Substances

4.8 Following consideration of the report of the forty-fourth meeting of GESAMP-BWWG (MEPC 81/4/1), the Committee approved the report in general and concurred with the recommendation to grant Basic Approval to the ERMA FIRST FLOW ballast water management system.

4.9 The Committee invited the Administration of Denmark to verify that all the recommendations contained in the aforementioned report (MEPC 81/4/1, annex 4) were fully addressed during the further development of the BWMS.

4.10 The Committee noted the Group's recommendation that, for any future applications of any BWMS for Basic Approval, they should include all system components and processes, to be described and tested as intended for the system to operate in practice.

Future meetings of GESAMP-BWWG

4.11 The Committee noted that the forty-fifth meeting of GESAMP-BWWG had been scheduled for 6 to 10 May 2024 and detailed information had been specified in BWM.2/Circ.81.

Type approval of BWMS

4.12 The Committee noted the information regarding type-approved BWMS provided in the following documents:

.1 MEPC 81/INF.3 (Islamic Republic of Iran) on the type approval of the RADClean® BWMS;

.2 MEPC 81/INF.16 (Singapore) on the type approval of the Semb-Eco BWMS;

.3 MEPC 81/INF.24 (Norway) on the type approval of the Cyeco BWMS; and

.4 MEPC 81/INF.33 (Denmark) on the type approval of the BalClor® Smart BWMS.

ISO standard on commissioning testing procedures for BWMS using electrolytic methods

4.13 The Committee noted the information in document MEPC 81/INF.18 (ISO) on the development of an ISO standard on commissioning testing procedures for BWMS using electrolytic methods and invited ISO to continue updating the Organization on its further work relating to the development of this standard.

Establishment of the Ballast Water Review Group

4.14 The Committee established the Ballast Water Review Group and instructed it, taking into consideration the comments and decisions made in plenary, to:

.1 finalize the draft list of provisions and instruments for revision and/or development under the Convention review stage of the experience-building phase associated with the BWM Convention, using annex 3 to document MEPC 81/4/2 as the basis and taking into account the proposals, comments and information in documents MEPC 81/4/5, MEPC 81/4/7, MEPC 81/4/9, MEPC 81/INF.6 and MEPC 81/INF.9;

.2 prepare draft terms of reference for the re-establishment of the Correspondence Group on Review of the BWM Convention;

.3 finalize the draft interim guidance on the application of the BWM Convention to ships operating in challenging water quality, using the annex to document MEPC 81/4/4 as the basis and taking into account the comments in documents MEPC 81/4/8 and MEPC 81/4/11;

.4 finalize the draft guidance on the temporary storage of grey water or treated sewage in ballast tanks, using the annex to document MEPC 81/4/6 as the basis and taking into account the views in document MEPC 79/4/8;

.5 depending on the outcome of the consideration of the proposed guidance on the temporary storage of grey water or treated sewage in ballast tanks, consider the proposed amendments to the BWM Convention contained in document MEPC 79/4/8 concerning the discharge of grey water or treated sewage temporarily stored in ballast tanks, and advise the Committee accordingly; and

.6 consider the proposals contained in document MEPC 81/4/3 regarding modifications to ballast water management systems with existing type approval, taking into account the comments and information in documents MEPC 81/4/10, MEPC 81/4/12 and MEPC 81/INF.13, and advise the Committee accordingly.

Report of the Ballast Water Review Group

4.15 Having considered the report of the Ballast Water Review Group (MEPC 81/WP.9), the Committee approved it in general and took action as outlined below.

BWM Convention review

4.16 The Committee endorsed the list of provisions and instruments for revision and/or development under the Convention review stage of the experience-building phase associated with the BWM Convention, as set out in annex 1 to document MEPC 81/WP.9, to guide the further work of the Correspondence Group on Review of the BWM Convention.

Re-establishment of the Correspondence Group on Review of the BWM Convention

4.17 In this connection, the Committee re-established the Correspondence Group on Review of the BWM Convention, under the coordination of Australia,[1] with the following terms of reference:

.1 prepare draft amendments to provisions of the BWM Convention and to associated instruments, and for new provisions and/or instruments, based on the list of provisions and instruments for revision and/or development set out in annex 1 to document MEPC 81/WP.9 and taking into account the relevant discussions reflected in documents MEPC 81/4/2 and MEPC 81/WP.9; and

.2 submit a report to MEPC 83.

4.18 The Committee encouraged interested Member States and international organizations to contact the Coordinator of the Correspondence Group, with a view to participating and contributing to its work.

Application of the BWM Convention to ships operating in challenging water quality

4.19 The Committee adopted resolution MEPC.387(81) on *Interim guidance on the application of the BWM Convention to ships operating in challenging water quality conditions*, as set out in annex 5.

Temporary storage of treated sewage or grey water in ballast tanks

Guidance on the temporary storage of grey water or treated sewage in ballast tanks

4.20 The Committee approved BWM.2/Circ.82 on *Guidance for the temporary storage of treated sewage and/or grey water in ballast water tanks*.

[1] **Coordinator**:
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Consequential amendments to the BWM Convention

4.21 In addition, the Committee endorsed the Group's view that draft amendments to regulations A-2 and B-2 of the BWM Convention, concerning the discharge of treated sewage and/or grey water temporarily stored in ballast water tanks, were not necessary, while the corresponding draft amendment to regulation B-1 could be considered under the Convention review.

Modifications to BWMS with existing type approval

4.22 The Committee invited interested Member States and international organizations to work intersessionally with the broadest possible participation and submit further concrete proposals to MEPC 82, with a view to finalization of guidance on modifications to BWMS with existing type approval.

Future work

4.23 The Committee noted the request of the Group to re-establish the Ballast Water Review Group at MEPC 82, in accordance with the provisions of regulation D-5 of the BWM Convention.

5 AIR POLLUTION PREVENTION

5.1 In the interest of time, the Committee agreed to refer documents concerning the proposed draft amendments to the *2021 Guidelines for exhaust gas cleaning systems* (EGCS) (resolution MEPC.340(77)), reissuance of the Engine International Air Pollution Prevention (EIAPP) Certificate, and biofuels and biofuel blends and their carriage by bunkering vessels directly to the Working Group on Air Pollution and Energy Efficiency (APEE Working Group) for detailed consideration (see paragraph 5.16).

5.2 The Committee recalled that, in considering the outcome of MSC 107 under agenda item 2 (see paragraph 2.3), it had agreed to consider the draft MSC-MEPC guidelines for fuel sampling procedures under this agenda item. In this regard, the Committee agreed to refer paragraph 3.2 of document MEPC 81/2, in conjunction with document MEPC 81/2/4 and paragraph 3 of document MEPC 81/2/7, to the APEE Working Group for detailed consideration (see paragraph 5.16).

Implementation of the global 0.50% sulphur limit and the use of EGCS

5.3 The Committee had for its consideration the following documents:

.1 MEPC 81/5/4 (FOEI et al.), recalling the duty of Parties to MARPOL Annex VI to not impair or damage the environment, human health, property or resources when approving alternative compliance methods and reflecting on the importance of not interpreting regulation 4.1 of MARPOL Annex VI in isolation of other regulations and obligations;

.2 MEPC 81/INF.21 (Finland), reporting the key findings of the Horizon 2020 EMERGE project on environmental impact assessments of EGCS effluents for the Baltic Sea, North Sea, English Channel and the Mediterranean Sea areas;

.3 MEPC 81/INF.36 (FOEI et al.), summarizing a study by the International Council on Clean Transportation (ICCT) providing an update on measures restricting the use of EGCS in various countries and ports until February 2023; and categorizing measures as bans or more limited restrictions; and

.4 MEPC 81/INF.38 (CLIA), providing information on a risk assessment of open loop EGCS washwater discharges from cruise ships within the Puget Sound region of the United States, based on the recommended methodology provided in the *2022 Guidelines for risk and impact assessments of the discharge water from exhaust gas cleaning systems* (MEPC.1/Circ.899).

5.4 The Committee, having recalled that MEPC 80 had re-instated the agenda item on "Evaluation and harmonization of rules and guidance on the discharge of discharge water from EGCS into the aquatic environment, including conditions and areas" on the agenda of PPR 11 and that, due to the close proximity of PPR 11 and MEPC 81, the outcome of PPR 11 concerning EGCS matters would be reported to MEPC 82, deferred documents MEPC 81/5/4, MEPC 81/INF.21, MEPC 81/INF.36 and MEPC 81/INF.38 to MEPC 82, for consideration in conjunction with the relevant outcome of PPR 11.

Effectiveness of regulation 13 of MARPOL Annex VI

5.5 The Committee had for its consideration the following documents:

.1 MEPC 81/5/3 (Belgium et al.), outlining growing concerns that the NO_x emission control programme under regulation 13 of MARPOL Annex VI and the NO_x ECA requirements were not achieving the anticipated reductions in air pollution from marine diesel engines; and recommending examining the perceived shortcomings and considering a way forward to ensure that the NO_x control programme provided cleaner air and health benefits;

.2 MEPC 81/5/6 (Finland), commenting on document MEPC 81/5/3 concerning perceived shortcomings of the NO_x emissions reduction programme in regulation 13 of MARPOL Annex VI; supporting that the concerns of the effectiveness of Annex VI be examined; and proposing investigation of the level of implementation of relevant regulations to ensure that they were implemented in a uniform manner; and

.3 MEPC 81/INF.7 (Canada), providing information on the slower than expected incidence of Tier III ship calls to Canada to date and sharing the results of a modelling analysis of air quality and health impacts of NO_x Tier III standards in Canadian waters.

5.6 In the ensuing discussion, several delegations expressed concerns that the expected NO_x reductions in ECAs had not been achieved and invited the Committee to consider ways to ensure that the NO_x control programme delivered on the objective to reduce harmful emissions and their negative impact on human health; and identified the following possible shortcomings of NO_x regulations: keel-laying dates used to circumvent regulation; the combination of ship operating profiles and engine certification duty cycles might result in much higher emissions than originally expected; and the NO_x compliance and enforcement provisions in MARPOL Annex VI made it difficult to detect and enforce against ships that exceeded the NO_x limits. In the view of these delegations, these issues applied not only to Tier III NO_x standards but also to Tier II standards. Regarding the specific concern of regulatory avoidance relating to keel-laying dates, one delegation expressed support for the approach

proposed in documents MEPC 81/11/1 and MEPC 81/11/2 to consider reflecting the ship's delivery date in addition to the keel-laying date concerning future NO_x ECAs and suggested the further consideration of the implications of the three dates criteria within this agenda item. One delegation underlined the importance of addressing these issues, as many zero- and near-zero carbon fuels were likely to have significant NO_x emissions.

5.7 Several delegations noted that the measurement studies referred to in document MEPC 81/5/3 had been carried out using various methods and under different circumstances that might lead to inaccuracies, e.g. measurement sensor accuracy, calculation methods, assumptions on engine power, fuel used and its consumption, and suggested that the Committee's priority at this stage should be to ensure uniform and effective implementation of the NO_x regulations and conduct further research. These delegations also noted that for Tier II, regardless of these inaccuracies, the measurement results were well below the standards, and that for Tier III, the number of measurements conducted was very limited when compared to data available on Tier II ships, thus questioning the reliability of the results.

5.8 Several delegations, in acknowledging the concerns raised in document MEPC 81/5/3, stated that further research and data collection were needed and supported the initiation of comprehensive discussions in the Committee to address the identified concerns on the effectiveness of NO_x regulations. One delegation highlighted that the further consideration of NO_x engine performance at low loads would require a thorough consideration of technical feasibility. Several delegations suggested that the Committee in its future considerations should put more emphasis on how to ensure ship compliance along their entire lifetime, including by requiring actual emissions measurement at the initial survey in addition to test-bed measurements.

5.9 The observer from IACS, referring to document MEPC 81/5/6, agreed with the need to address the reported disparities in the implementation of regulations by various recognized organizations (ROs), and suggested keeping RO-related investigations within the IMO framework of the III and RO Codes. The full statement of the observer is set out in annex 16.

5.10 The observer from EUROMOT, referring to document MEPC 81/5/3, provided technical comments on various issues, e.g. NO_x emissions at low loads, test cycles, compliance procedures, and NO_x emissions from alternative fuels. The full statement of the observer is set out in annex 16.

5.11 Following consideration, the Committee:

.1 noted the information and concerns expressed regarding the effectiveness of regulation 13 of MARPOL Annex VI, including the NO_x Tier III standards, in regulating NO_x emissions from ships, including in NO_x ECAs, set out in documents MEPC 81/5/3, MEPC 81/5/6 and MEPC 81/INF.7; and

.2 invited interested Member States and international organizations to continue conducting research on the matter and to consider submitting proposals for a new output on the review of the effectiveness of regulation 13 of MARPOL Annex VI, including the NO_x Tier III standard contained therein, to a future session of the Committee.

Impact of Black Carbon emissions from international shipping on the Arctic

5.12 The Committee had for its consideration the following documents:

.1 MEPC 81/5/5 (FOEI et al.), setting out suggestions for regulation to deliver "fast and immediate" action to reduce Black Carbon (BC) emissions via a fuel switch, followed by stricter emission cuts via a polar fuel standard and designation of BC ECAs in a stepped approach; and

.2 MEPC 81/5/8 (FOEI et al.), providing additional background information on marine fuel quality issues to support the proposals set out in document MEPC 81/5/5 for concrete action to control and reduce BC emissions from ships operating in or near to the Arctic, namely to pursue the H/C ratio as a measure of a marine fuel's sooting propensity; and supporting the development of the polar fuel standard and an Arctic BC ECA.

5.13 The Committee, having recalled that, due to the close proximity of PPR 11 and MEPC 81, the outcome of PPR 11 concerning Black Carbon matters would be reported to MEPC 82, deferred documents MEPC 81/5/5 and MEPC 81/5/8 to MEPC 82, for consideration in conjunction with the relevant outcome of PPR 11.

Relevant information on air pollution from ships

5.14 The Committee noted updated information on the treatment of ozone-depleting substances (ODS) used by ships provided by the Secretariat (MEPC 81/5), and requested the Secretariat to continue submitting relevant updates to future sessions of the Committee.

5.15 In this regard, the Committee noted information on air pollution from ships set out in the following documents:

.1 MEPC 81/INF.12 (IBIA), providing information on a method developed for the sampling of low-flashpoint fuels supplied to ships for use on board as fuel;

.2 MEPC 81/INF.19 (Singapore), providing information on the Digital Bunkering initiative launched by the Port Authority of Singapore (MPA) and the electronic bunker delivery notes (eBDNs) issued by MPA-licensed bunker suppliers; and

.3 MEPC 81/INF.34 (Canada), presenting the results of a study on the use of biofuels on board three Canadian-flagged ships from two Canadian shipping companies in relation to operational impacts, technical preparations prior to use, and associated air pollution emissions.

Establishment of the Working Group on Air Pollution and Energy Efficiency

5.16 The Committee established the APEE Working Group and instructed it, taking into account comments, proposals and decisions made in plenary, to:

.1 consider paragraph 3.2 of document MEPC 81/2 in conjunction with document MEPC 81/2/4 and paragraph 3 of document MEPC 81/2/7, and advise the Committee accordingly;

.2 consider the proposed draft amendments to the *2021 Guidelines for exhaust gas cleaning systems* (resolution MEPC.340(77)) regarding nitrate concentration data for EGCSs of similar design, as set out in document MEPC 81/5/2 (India), and advise the Committee accordingly;

.3 consider the need to provide a clarification regarding Engine International Air Pollution Prevention (EIAPP) Certificate reissuance at the time of change of flag of a ship, taking into account documents MEPC 81/5/1 (India) and MEPC 81/5/7 (United States), and advise the Committee accordingly;

.4 consider the information and proposals in respect of the carriage of biofuels and biofuel blends by bunkering vessels set out in documents MEPC 81/6/10 (India and Republic of Korea) and MEPC 81/INF.4 (IBIA), and advise the Committee accordingly; and

.5 consider the information and proposals in respect of biofuels and biofuel blends set out in documents MEPC 80/5 (Norway) and MEPC 80/5/2 (India), and advise the Committee accordingly.

Report of the Working Group

5.17 Having considered the relevant part of the report of the APEE Working Group (MEPC 81/WP.7, paragraphs 4 to 45 and 89), the Committee approved it in general and took action as outlined below.

Outcome of MSC 107 in respect of fuel sampling

5.18 The Committee noted that the Group had considered the outcome of MSC 107 regarding the draft MSC-MEPC guidelines for fuel sampling procedures (MEPC 81/2, paragraph 3.2), in conjunction with document MEPC 81/2/4 and paragraph 3 of document MEPC 81/2/7.

5.19 Having noted the discussion of the Group on this issue, the Committee:

.1 approved the draft MSC-MEPC circular on *Guidelines for the sampling of fuel oil for determination of compliance with MARPOL Annex VI and SOLAS chapter II-2*, as set out in annex 1 to document MEPC 81/WP.7, subject to concurrent approval by MSC 108, as an urgent matter; and

.2 agreed to revoke resolution MEPC.182(59) on *2009 Guidelines for the sampling of fuel oil for determination of compliance with the revised MARPOL Annex VI* when the joint MSC-MEPC circular was issued.

Draft amendments to the 2021 Guidelines for EGCS regarding nitrate concentration data for EGCS of similar design

5.20 The Committee noted that the Group had considered document MEPC 81/5/2 (India), proposing amendments to the *2021 Guidelines for Exhaust Gas Cleaning Systems* (resolution MEPC.340(77)), with a view to providing clarity regarding the acceptance of data on nitrate concentrations from EGCS discharge water from a similar design EGCS, as an alternative to drawing a sample for the actual nitrate content analysis required in section 10.1.5 of the EGCS Guidelines.

5.21 The Committee, having noted that there had not been sufficient support in the Group for the proposed amendments, invited interested Member States and international organizations to submit proposals with appropriate justifications for relevant amendments to a future session.

EIAPP Certificate reissuance at the time of change of flag of a ship

5.22 The Committee noted that the Group had considered the following documents:

.1 MEPC 81/5/1 (India), seeking clarification regarding reissuance of the EIAPP Certificate at the time of change of flag of a ship; and

.2 MEPC 81/5/7 (United States), commenting on document MEPC 81/5/1 and stressing that the receiving Administration was responsible for either issuing a new EIAPP Certificate or providing a statement that recognizes and authorized the certificates issued by the previous Administration.

5.23 The Committee noted that there had not been sufficient support in the Group for the proposed interpretation regarding EIAPP Certificate reissuance at the time of change of flag of a ship proposed in document MEPC 81/5/1. In this regard, the Committee also requested the Secretariat to correct an editorial mistake in regulation 9.9.3 of MARPOL Annex VI (erroneous reference to regulation 5.4 instead of 5.5) in a future revision of the Annex (MEPC 81/WP.7, paragraph 25).

Carriage of biofuels and biofuel blends by bunker vessels

5.24 Regarding the carriage of biofuels and biofuel blends by bunker vessels, the Committee noted that the Group had considered the following documents:

.1 MEPC 81/6/10 (India and Republic of Korea), outlining issues on the use of biofuels as part of the Organization's commitment to reduce GHG emissions from international shipping; and proposing a draft MEPC circular, providing guidance on carriage requirements for biofuels for marine bunkering vessels certified for the carriage of MARPOL Annex I cargoes; and

.2 MEPC 81/INF.4 (IBIA), advising that ships engaged in bunkering operations and certified under MARPOL Annex I were not allowed to carry biofuel blends with greater than 25% of biofuel content even within port areas, which presented a potential impediment to the global adoption of biofuels as fuel oil for ships and the ambition for the decarbonization of international shipping in the short term, as set out in the 2023 IMO GHG Strategy.

5.25 The Committee, having noted that there had not been sufficient support in the Group for approving the interim guidance on the carriage of biofuels and biofuel blends by bunker vessels proposed in document MEPC 81/6/10, referred documents MEPC 81/6/10 and MEPC 81/INF.4 to ESPH 30 for further consideration in respect of supply of fuel oil to ships by bunker vessels, taking into the account comments made at this session, with a view to advising the Committee on the way forward.

Guidance for the use of biofuels and biofuel blends

5.26 The Committee noted that the Group had considered the following documents related to the use of biofuels and biofuel blends, deferred to this session by MEPC 80:

.1 MEPC 80/5 (Norway), providing a study which compared pollutants in exhaust gas generated from two different engines using biodiesel and marine gas oil in a laboratory which demonstrated that the combustion of Hydrotreated Vegetable Oil (HVO) reduced NO_x emissions compared to the use of marine gas oil, supporting the effectiveness of a unified interpretation to regulation 18.3 of MARPOL Annex VI; and

.2 MEPC 80/5/2 (India), providing text of draft interim guidelines for the use of biofuels and blends of biofuels containing recommendations in respect of procurement, storage, oil quality testing and use of biofuels or biofuel blends on board.

5.27 The Committee, having noted that there had not been sufficient support in the Group for the interim guidance for the use of biofuels and biofuel blends (MEPC 80/5/2), invited interested Member States and international organizations to submit relevant proposals with regard to the safe use of biofuels and biofuel blends to a future session of the Maritime Safety Committee.

6 ENERGY EFFICIENCY OF SHIPS

6.1 Due to time constraints, the Committee agreed to refer documents concerning the proposed draft amendments to 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)); the *2022 Guidelines for the development of a Ship Energy Efficiency Management Plan (SEEMP)* (resolution MEPC.346(78)); the *2022 Guidelines for Administration verification of ship fuel oil consumption data and operational carbon intensity* (resolution MEPC.348(78)); and the unified interpretations of regulations 2.2.15 and 2.2.18 of MARPOL Annex VI, as well as proposals for the consistent reporting of fuel consumption by LNG carriers and gas carriers and of VLSFO, ULSFO, biofuels and e-fuels to the IMO DCS, directly to the APEE Working Group, established under agenda item 5 (see paragraph 5.16), for detailed consideration.

Information in the EEDI database

6.2 The Committee noted information by the Secretariat (MEPC 81/INF.2), providing the latest summary of data and graphical representations of the information contained in the EEDI database.

Reports on 2022 fuel oil consumption data and on annual carbon intensity

6.3 The Committee noted document MEPC 81/6 (Secretariat), providing the report of the fuel oil consumption data for the period 1 January to 31 December 2022 and associated information, and proposing a number of improvements to the IMO DCS GISIS module (MEPC 81/6, paragraphs 9 to 13), together with an oral update by the Secretariat on its ongoing work in maintaining and upgrading the IMO DCS database.

6.4 Following consideration, the Committee:

.1 approved, in principle, the summary of the fuel oil consumption data submitted by almost 29,000 ships to the IMO DCS for 2022;

.2 noted the improvements to the IMO DCS GISIS module made by the Secretariat, notably to allow CII and other parameters to be reported as of the 2023 reporting period, as well as the ongoing enhancement of the user-friendliness, accessibility and functionalities of the IMO DCS database, to be reported on to a future session; and

.3 noted that following the adoption of the *2022 Guidelines on operational carbon intensity indicators and the calculation methods* (CII Guidelines, G1) (resolution MEPC.352(78)), the CII metric to be used for the ship type category "ro-ro cargo ships" in document MEPC 81/6 should be cgDIST, instead of AER, and that this would be reflected in future reports to the Committee.

6.5 The Committee also noted that, following the request in the *2021 Guidelines on the operational carbon intensity reduction factors relative to reference lines* (CII Reduction Factors Guidelines, G3) (resolution MEPC.338(76)) to monitor developments in annual carbon intensity improvement using both demand-based and supply-based measurements in parallel to the annual analysis of the fuel consumption data reported to the IMO DCS, document MEPC 81/6/1 (Secretariat) provided the report on annual carbon intensity for the years 2019 to 2022.

6.6 Following consideration, the Committee approved, in principle, the reporting on carbon intensity developments on the basis of supply-based measurements, using AER and cgDIST indicators and noted:

.1 the general outcome with regard to carbon intensity developments (MEPC 81/6/1, paragraph 19 and annex); and

.2 the limitations of calculating the estimated demand-based carbon intensity using AIS draught data; and that this was not a full substitute for reported cargo data or, ideally, transport work data to the IMO DCS, as explained in more detail in the annex to document MEPC 81/6/1.

6.7 In conclusion, the Committee expressed its appreciation to the Secretariat for the thorough analysis of the fuel consumption data and carbon intensity developments and requested it to continue:

.1 maintaining the IMO DCS and associated annual fuel consumption reporting, and exploring possible improvements to the reporting process; and

.2 monitoring the carbon intensity of the existing fleet based on supply-based and demand-based measurements, and to report the outcome to the Committee.

Review of suitability of the IMO DCS for implementation and enforcement of current and future measures

6.8 The Committee had for its consideration document MEPC 81/6/5 (Austria et al.), outlining the main stakes related to data quality, integrity and the verification process of the IMO DCS, while underlining potential risks and vulnerabilities of the current system, for further analysis and actions that could be investigated to address them; and proposing a review of suitability of the IMO DCS for implementation and enforcement of current and future regulatory GHG measures regarding data quality and integrity, focusing, inter alia, on identification and assessment of risks and vulnerabilities before addressing them.

6.9 In the ensuing discussion, several delegations stressed that the review of the short-term GHG reduction measure and the ongoing development of mid-term measures required a robust system for collection and verification of ship fuel oil consumption and GHG emission data. These delegations, in stressing that data quality, data integrity and data verification would be key factors in implementing current and future GHG reduction measures, highlighted that the IMO DCS was not only an information tool but also a compliance tool and, therefore, it was essential to maintain the environmental integrity and the level playing field across the world's fleet of all measures relying on such data. In this connection, these delegations stressed the importance of assessing the potential risks and vulnerabilities of the IMO DCS, using document MEPC 81/6/5 as the basis.

6.10 Several delegations stressed that the Organization should conduct a full risk analysis of the IMO DCS, including investigating risks associated with underreporting, which might increase with future GHG reduction measures. Several delegations expressed the view that in reviewing the suitability of the IMO DCS for future IMO GHG reduction measures, the Organization should keep in mind the need to ensure both the reliability and the simplicity of the system.

6.11 Several delegations, in thanking the Secretariat for its continuous efforts in improving the IMO DCS, expressed the view that the Secretariat was in a good position to conduct further analysis and provide recommendations to MEPC 82, or MEPC 83 at the latest, with a view to ensuring that the IMO DCS meets the needs of the Member States and the Organization. One delegation expressed concerns on the time constraints that the Secretariat might face in conducting such a full risk analysis. Several delegations expressed the view that existing requirements in MARPOL did not provide Parties full access to the IMO DCS data sets, which inadvertently undermined their ability to conduct their own assessment of the quality of the data sets. Several delegations suggested that the Secretariat or a contractor, in conducting the proposed analysis, should take into account feedback from external stakeholders and experience from other mechanisms such as the EU MRV.

6.12 Following discussion, the Committee noted the broad support for the proposal set out in document MEPC 81/6/5 and, consequently, requested the Secretariat to conduct a review of the suitability of the IMO DCS for the implementation and enforcement of current and future IMO GHG reduction measures, taking into account document MEPC 81/6/5 and comments made at this session, and report back to a future session.

Review of the short-term GHG reduction measure

6.13 The Committee recalled that MEPC 80 had approved the *Review plan of the short-term GHG reduction measure* and had noted that the proposals contained in relevant documents submitted to previous sessions would be considered in accordance with the Review plan.

6.14 The Committee also recalled that the Review plan included the timeline for the review of the short-term GHG reduction measure as follows:

.1 *Data gathering stage*: from MEPC 80 to MEPC 82 (September 2024);

.2 *Data analysis stage*: by the working group at MEPC 82, to be continued by a correspondence group; and

.3 *Convention and Guidelines review stage*: an intersessional working group between MEPC 82 and MEPC 83 (spring 2025) as well as a working group at MEPC 83.

6.15 The Committee had for its consideration the following documents, with a view to facilitating the data-gathering stage:

.1 MEPC 81/6/2 (ICS), introducing the newly established voluntary ICS CII Data-Collection System, which enabled shipowners and ship managers to submit a copy of their aggregate validated IMO DCS data and, separately in unvalidated aggregate form, the additional scope of data agreed at MEPC 80 (e.g. including greater granularity of fuel consumption and transport work); and inviting Member States to circulate information on this data-collection facility to ships flying their flag, thereby encouraging its use;

.2 MEPC 81/6/13 (RINA), presenting the objectives and methodology of a comprehensive project currently being carried out by Mærsk Mc-Kinney Møller Center for Zero Carbon Shipping with initial focus on the evaluation of the CII framework; and providing the initial results of the study in the review of the CII, to address the negative effects, while preserving the positive effects;

.3 MEPC 81/6/15 (INTERFERRY), presenting a study undertaken to assess an alternative CII metric for ro-ro cargo and ro-ro passenger ships, seeking to mitigate the negative influence of high frequency service on the attained CII;

.4 MEPC 81/6/18 (WWF et al.), commenting on document MEPC 81/6/1; and proposing to review the CII in the context of the 2023 IMO GHG Strategy and the negotiation of the basket of mid-term measures, to ensure a clear understanding that the various short- and mid-term measures developed at the same time but in parallel, were collectively capable of delivering the highest level of climate ambition and contributed to a just and equitable transition;

.5 MEPC 81/INF.22 (Republic of Korea), sharing lessons learned from the CII consulting conducted by the Republic of Korea for the country's shipping companies to emphasize the cooperation among stakeholders for the effective implementation of the CII regulation;

.6 MEPC 81/INF.27 (INTERCARGO), providing information on CII and, in particular, on the impact of short voyages, port waiting time and ship loading conditions on attained CII, based on a study by INTERCARGO and five classification societies (ABS, BV, ClassNK, DNV and LR) using DCS and EU MRV data for bulk carriers;

.7 MEPC 81/INF.28 (INTERCARGO), providing information on a study carried out by ABS, on behalf of INTERCARGO, on the impact of short voyages on the attained CII of bulk carriers;

.8 MEPC 81/INF.29 (INTERCARGO), providing information on a study carried out by LR, on behalf of INTERCARGO, on the impact of port waiting time on the CII;

.9 MEPC 81/INF.30 (INTERCARGO), providing information on a study carried out by BV, on behalf of INTERCARGO, on the effects of port waiting time on the CII;

.10 MEPC 81/INF.31 (INTERCARGO), providing information on a study carried out by ClassNK, on behalf of INTERCARGO, on the impacts of ship loading condition (laden/ballast voyages) on the CII; and

.11 MEPC 81/INF.32 (INTERCARGO), providing information on a study carried out by DNV, on behalf of INTERCARGO, on the impacts of ship loading condition (laden/ballast voyages) on the CII.

6.16 In accordance with the Review plan, the Committee agreed to forward documents MEPC 81/6/2, MEPC 81/6/13, MEPC 81/6/15, MEPC 81/6/18, MEPC 81/INF.22, MEPC 81/INF.27, MEPC 81/INF.28, MEPC 81/INF.29, MEPC 81/INF.30, MEPC 81/INF.31 and MEPC 81/INF.32, together with relevant documents deferred from previous sessions, i.e.

documents MEPC 80/6/3, MEPC 80/6/5, MEPC 80/6/6, MEPC 80/6/8, MEPC 80/INF.20, MEPC 80/INF.28, MEPC 80/INF.34, MEPC 79/7/1, MEPC 79/7/2, MEPC 79/7/13, MEPC 79/7/15, MEPC 79/7/21, MEPC 79/7/27 and MEPC 79/INF.19 to MEPC 82 for consideration, where a working group was expected to be established to conduct the review of the short-term measure.

6.17 The Committee also had for its consideration the following documents:

.1 MEPC 81/6/6 (Bahamas et al.), proposing a draft MEPC resolution that clarified the current status of the CII rating system to raise awareness among wider stakeholders (e.g. financiers, insurers, charterers, brokers and PSC) that CII was currently within a de facto experience-building phase and key elements of the system were interim; and proposing to urge Member States through the draft resolution to advise wider stakeholders not to utilize CII or its metrics (i.e. AER or cgDIST) for assessment of energy efficiency or regulatory compliance risk; and

.2 MEPC 81/6/17 (India), supporting document MEPC 81/6/6; highlighting factors to be taken into consideration during the review of the short-term measure; and suggesting that the Committee request the Secretariat to commission a further study to ensure a more accurate calculation of the CII reference lines based on the IMO DCS data and current ship type specific correction factors to ensure a fair and rational CII rating system for all ship types.

6.18 In considering the proposed MEPC resolution, several delegations, in recognizing that the CII framework was not perfect and expecting that the outcome of the review process would ensure that it was more robust and reliable, did not share the understanding of the co-sponsors of document MEPC 81/6/6 that the CII framework was in an interim or de facto experience-building phase and could not support the proposed resolution. In their view, such an action would undermine the effectiveness of the measure in enhancing energy efficiency improvements and weaken IMO's leadership and commitment to reducing GHG emissions from international shipping. Several delegations also stressed that the proposed resolution would be inconsistent with regulation 28.10 of MARPOL Annex VI, which encouraged Administrations, port authorities and other stakeholders, as appropriate, to provide incentives to ships rated as A or B.

6.19 Several other delegations, in reaffirming their support for the pragmatic enforcement mechanism in the CII framework and the review process approved by MEPC 80, stressed that a number of serious weaknesses had been identified in the CII framework and that it was not performing as intended. These delegations expressed their expectation that the CII review process would result in a fairer system that would incentivize correct behaviour and stressed that some wider stakeholders, such as charterers and financiers, were relying on the CII rating system, which was not appropriate at this stage of development of the measure, resulting in over-penalizing D or E rated ships. In the view of these delegations, if left unaddressed, this situation would be likely to lead to unintended consequences for the decarbonization process and penalize ships for factors that were beyond their control, for example due to short voyages and extended port waiting time. They therefore supported the adoption of the proposed MEPC resolution to raise awareness among the wider stakeholders of the current CII system and urge them to not utilize the CII ratings or the CII metrics prior to the review process of the short-term measure being completed.

6.20 A number of delegations saw merit in instructing the APEE Working Group to start considering how the concrete concerns identified in the document could be addressed during the review process, including the potential for unintended consequences associated with reliance on CII ratings by financiers, insurers, charterers, brokers and PSC, when those ratings might not accurately reflect the efficiency of ships and might be subject to revision.

6.21 A statement by the observer from CLIA on the matter is set out in annex 16.

6.22 Regarding the proposal in document MEPC 81/6/17 to conduct a study to ensure a more accurate calculation of the CII reference lines, several delegations thanked India for submitting the results of preliminary studies. Several delegations, in recognizing the concerns raised, preferred to keep to the review process and suggested deferring the consideration of this document to MEPC 82, after the data-gathering stage had been conducted. One of these delegations also stressed that any correction factor introduced in the CII framework should be compensated for in the review process.

6.23 Following consideration, the Committee:

.1 noted the commitment of all delegations to the CII review process in accordance with the Review plan approved by MEPC 80;

.2 noted the concerns expressed in documents MEPC 81/6/6 and MEPC 81/6/17 regarding the shortcomings and unintended consequences of the CII mechanism and the general agreement that these concerns should be fully considered and addressed during the CII review process;

.3 noted that there was not sufficient support for the adoption of the resolution proposed in document MEPC 81/6/6;

.4 deferred the further consideration of document MEPC 81/6/17 to MEPC 82 so that the scope of the study could be further defined; and

.5 invited interested Member States and international organizations to collect data and submit information and proposals to MEPC 82 with a view to being taken into account during the data analysis stage.

6.24 The Chair, in noting that there was significant support for instructing the APEE Working Group to further consider the concerns identified in document MEPC 81/6/6, advised that the workload of the Group would not allow a detailed analysis to be conducted at this session.

Editorial corrections to the CII Guidelines

6.25 The Committee had for its consideration the following documents suggesting editorial corrections to the CII Guidelines:

.1 MEPC 81/6/7 (Republic of Korea and IACS), underlining a discrepancy issue with the definition of "capacity" for CII calculations between the *2022 Guidelines on operational carbon intensity indicators and the calculation methods* (CII Guidelines, G1) and the *2022 Interim Guidelines on correction factors and voyage adjustments for CII calculations* (CII Guidelines, G5) with unintended consequences for the CII ratings of individual ships; and proposing amendments to the definition of "capacity" in the CII Guidelines, G5, to prevent undesirable incentives and to ensure a technically robust implementation of the CII requirements; and

.2 MEPC 81/6/12 (China), proposing amendments to the definition of "capacity" used in the CII Guidelines, G5, for voyage adjustments and correction factors, with a view to ensuring consistent implementation.

6.26 Following consideration, the Committee requested the Secretariat to issue a corrigendum to the report of MEPC 78 with an editorial correction to the CII Guidelines, G5, to replace an incorrect reference to the CII Reference Lines Guidelines, G2, for the calculation of a ship's capacity by a reference to the CII Guidelines, G1.

Instructions to the APEE Working Group

6.27 The Committee agreed to instruct the Working Group, established under agenda item 5 (see paragraph 5.16), to:

.1 consider the proposed draft amendments to the *2022 Guidelines for the development of a Ship Energy Efficiency Management Plan (SEEMP)* and the *2022 Guidelines for Administration verification of ship fuel oil consumption data and operational carbon intensity*, as set out in document MEPC 81/6/14, taking into account document MEPC 81/6/9, and advise the Committee accordingly;

.2 consider the proposals for the consistent reporting of LNG carriers and gas carriers to the IMO DCS set out in document MEPC 81/6/16, and the proposals for the consistent reporting of VLSFO, ULSFO, biofuels and e-fuels set out in document MEPC 81/6/8, and advise the Committee accordingly;

.3 consider proposed draft amendments to 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), as amended by resolution MEPC.375(80)), as set out in document MEPC 81/6/3, and advise the Committee accordingly; and

.4 consider proposed amendments to the unified interpretations of regulations 2.2.15 and 2.2.18 of MARPOL Annex VI as set out in documents MEPC 81/6/11 and MEPC 81/6/4, respectively, and advise the Committee accordingly.

Report of the APEE Working Group

6.28 Having considered the relevant part of the report of the Working Group (MEPC 81/WP.7, paragraphs 36 to 89), the Committee approved it in general and took action as outlined below.

Draft amendments to resolutions MEPC.346(78) and MEPC.348(78)

6.29 With regard to proposed amendments to the *2022 Guidelines for the development of a Ship Energy Efficiency Management Plan (SEEMP)* (resolution MEPC.346(78)) and the *2022 Guidelines for Administration verification of ship fuel oil consumption data and operational carbon intensity* (resolution MEPC.348(78)), the Committee noted that the Group had considered the following documents:

.1 MEPC 81/6/14 (Japan and Norway), proposing consequential modifications to the SEEMP Guidelines and the *2022 Guidelines for Administration Verification of Ship Fuel Oil Consumption Data and Operational Carbon Intensity*, aiming at reflecting the draft amendments to MARPOL Annex VI on IMO's DCS approved by MEPC 80 to ensure its smooth implementation; and

.2 MEPC 81/6/9 (RINA), providing an overview of possible amendments to the SEEMP Guidelines, based on the draft amendments to the IMO DCS reporting approved at MEPC 80.

6.30 Having noted the discussion of the Group on the matter, the Committee adopted:

.1 resolution MEPC.388(81) on *Amendments to the 2022 Guidelines for the development of a Ship Energy Efficiency Management Plan (SEEMP)* (resolution MEPC.346(78)), set out in annex 6; and

.2 resolution MEPC.389(81) on *Amendments to the 2022 Guidelines for Administration verification of ship fuel oil consumption data and operational carbon intensity* (resolution MEPC.348(78)), as set out in annex 7.

Consistent reporting of several ship and fuel types to the IMO DCS

6.31 The Committee noted that the Group had considered document MEPC 81/6/8 (INTERTANKO and RINA), presenting proposals for consistent reporting and categorization of LNG carriers which were currently categorized as gas carriers, for the purposes of reporting to the IMO DCS and CII.

6.32 Having noted the discussion of the Group on the consistent reporting of LNG carriers and gas carriers to the IMO DCS and that the Group had agreed that all LNG carriers currently categorized as gas carriers should be recategorized as LNG carriers for the purpose of DCS reporting and CII, the Committee requested the Secretariat to recalculate the AER of the LNG and gas carrier fleet for 2021 and 2022 once the recategorization was completed.

6.33 The Committee also noted that the Group had considered document MEPC 81/6/16 (ICS et al.), outlining proposals for the consistent reporting of VLSFO, ULSFO, biofuels and e-fuels to the IMO DCS and, having noted the outcome of the discussion, invited interested Member States and international organizations to submit proposals for a unified interpretation for the consistent reporting of VLSFO and ULSFO to a future session of the Committee.

Use of shaft/engine power limitation system to comply with the EEXI requirements and use of a power reserve

6.34 The Committee noted that the Group had considered document MEPC 81/6/3 (ICS et al.), discussing the experience of maritime pilots and industry with overridable shaft or engine power limitation systems on ships complying with regulation 25 of MARPOL Annex VI; outlining two challenges related to shaft or engine power limitation systems; and proposing amendments to resolution MEPC.335(76), as amended by resolution MEPC.375(80), to address this situation.

6.35 The Committee, having noted the discussion of the Group on the matter:

.1 adopted resolution MEPC.390(81) on *Amendments to 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 8;

.2 invited interested Member States and international organizations to submit concrete proposals regarding cases where specific measures for EPL/ShaPoLi reactivation are not required to a future session; and

.3 approved MEPC.1/Circ.908 on *Format for reporting to the Organization uses of a power reserve*.

Proposed amendments to the unified interpretations of regulations 2.2.15 and 2.2.18 of MARPOL Annex VI

6.36 With regard to proposed amendments to the unified interpretations of regulations 2.2.15 and 2.2.18 of MARPOL Annex VI, the Committee noted that the Group had considered the following documents:

.1 MEPC 81/6/4 (China), proposing unified interpretations to regulation 2.2.18 of MARPOL Annex VI to explicitly specify the applicable required EEDI of each Phase for the five ship categories: LNG carrier, cruise passenger ship, ro-ro passenger ship, ro-ro cargo ship (vehicle carrier) and ro-ro cargo ship, delivered on or after 1 September 2019, to ensure unified implementation of the EEDI requirements of MARPOL Annex VI; and

.2 MEPC 81/6/11 (China), proposing unified interpretations to regulation 2.2.15 of MARPOL Annex VI to clarify the term "heavy load carrier", taking into account the recommendations developed by IACS.

6.37 The Committee, having noted the discussion of the Group on the matter, approved unified interpretations to regulations 2.2.15 and 2.2.18 of MARPOL Annex VI, as set out in annex 9, and requested the Secretariat to amend the *Unified interpretations to MARPOL Annex VI* (MEPC.1/Circ.795/Rev.8) accordingly and disseminate the consolidated version by means of MEPC.1/Circ.795/Rev.9.

Measurement and verification of TtW emissions of CH_4, N_2O and other GHGs and development of a work plan for the use of onboard CO_2 capture

6.38 The Committee noted that, as per the additional instructions given to it during the consideration of agenda item 7 (see paragraphs 7.26 and 7.29), the Group had:

.1 considered how to develop a framework for the measurement and verification of tank-to-wake (TtW) emissions of methane (CH_4), nitrous oxide (N_2O) and other GHGs along with associated engine certification issues in the context of the further development of the LCA Guidelines, taking into account documents ISWG-GHG 16/3/2, MEPC 81/7/20, MEPC 81/7/10, MEPC 81/7/11, MEPC 81/7/13, MEPC 81/7/14, MEPC 81/7/17 and MEPC 81/INF.8; and

.2 considered the development of a work plan on developing a regulatory framework for the use of onboard CO_2 capture, using paragraph 31 of document MEPC 80/7/7 as the basis, with the exception of matters related to accounting of CO_2 captured and the consideration of system boundaries of the LCA Guidelines in relation to onboard CO_2 capture which were to be considered in the context of the further development of the LCA Guidelines.

6.39 The Committee, having noted the discussions of the Group on these issues, established a Correspondence Group on measurement and verification of non-CO_2 GHG emissions and onboard carbon capture, under the coordination of Norway,[2] and instructed it, taking into account documents ISWG-GHG 16/3/2, MEPC 81/7/20, MEPC 81/7/10, MEPC 81/7/11, MEPC 81/7/13, MEPC 81/7/14, MEPC 81/7/17, MEPC 81/INF.8, ISWG-GHG 16/4 and MEPC 80/7/7, and the comments made at ISWG-GHG 16 and MEPC 81, including the outcome of the APEE Working Group, to:

.1 with regard to tank-to-wake methane (CH_4) and nitrous oxide (N_2O) emissions:

.1 consider how to develop a framework for the measurement and verification of actual tank-to-wake methane (CH_4) and nitrous oxide (N_2O) emission factors and C_{slip} value for energy converters, taking into account relevant documents and technical references, taking into account any necessary proposals, which could include, but not be limited to, standardization required regarding a test cycle approach (including mode points and weighting factors); onboard monitoring; engine load distribution, and associated measurement equipment technology and procedures, as applicable;

.2 consider how to develop a methodological framework for associated certification issues, in support of the application of the LCA Guidelines; and

.3 identify the relevant gaps in existing instruments, and propose recommendations, with a view to developing necessary regulatory or recommendatory instruments;

.2 with regard to onboard carbon capture, further consider issues related to onboard carbon capture, using paragraph 31 of document MEPC 80/7/7, as well as comments made in the APEE Working Group, and develop a work plan on developing a regulatory framework for the use of onboard carbon capture systems with the exception of matters related to accounting of CO_2 captured on board ships; and

.3 submit a written report to MEPC 83.

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7 REDUCTION OF GHG EMISSIONS FROM SHIPS

Update on UNFCC matters

7.1 The Committee noted a statement by the UNFCCC Secretariat, as set out in annex 16, providing a summary of their recent work and its relevance to IMO's GHG discussions, including the outcome of the twenty-eighth United Nations Climate Change Conference (COP 28) held in Dubai, the United Arab Emirates, in December 2023.

7.2 The Committee also noted document MEPC 81/INF.10 (Secretariat), providing detailed information on the Secretariat's participation in COP 28; together with additional information provided orally by the Secretariat on their cooperation with the UNFCCC Secretariat, as well as their participation in relevant UNFCCC bodies and meetings.

7.3 Following consideration, the Committee requested the Secretariat to continue its well-established cooperation with the UNFCCC Secretariat and its attendance at relevant UNFCCC meetings, as appropriate, and to bring updates on the Organization's work on the reduction of GHG emissions to the attention of appropriate UNFCCC bodies and meetings.

Outcome of ISWG-GHG 16

7.4 The Committee noted that ISWG-GHG 16 had been held from 11 to 15 March 2024 and that its report had been submitted as document MEPC 81/WP.4, together with additional information provided orally by the Chair of the Working Group, Mr. S. Oftedal (Norway), and expressed appreciation to all participating delegations for their constructive work during the intersessional meeting and to the Chair for his efficient leadership of the Group.

7.5 In this regard, the Committee also expressed appreciation to Mr. H. Tan (Singapore) for moderating five meetings of the Steering Committee on the Comprehensive Impact Assessment between MEPC 80 and MEPC 81; the coordinators of the LCA Correspondence Group, i.e. Brazil, Japan and EC, for their intersessional work; and the Secretariat for organizing the Expert Workshop on the Life Cycle GHG Intensity of Marine Fuels (GHG-EW 4), which took place on 14 and 15 December 2023 (MEPC 81/INF.11).

7.6 The Committee noted statements by the Honourable Minister for Public Works, Transport and Meteorological Services of Fiji, Mr. Ro Filipe Qaraniqio Tuisawau, and the Ambassador of the Marshall Islands, Mr. Albon Ishoda, as set out in annex 16, expressing appreciation for the constructive discussions at ISWG-GHG 16 on various interrelated GHG-related workstreams; and, in referring to the gravity of the impacts of the ongoing climate crisis, in particular for the most climate vulnerable countries, calling on the Organization and its Member States to rapidly advance the implementation of the 2023 IMO GHG Strategy, notably through the further development of the basket of mid-term measures, in particular by developing a complementary GHG pricing mechanism in addition to the goal-based marine fuel standard, as an effective means to ensure a just and equitable transition.

7.7 Having considered the outcome and action requested by ISWG-GHG 16 (MEPC 81/WP.4), the Committee approved the report of the Group in general, and took action as described below.

CIA of basket of candidate mid-term GHG reduction measures

7.8 The Committee recalled that the 2023 IMO GHG Strategy stated that a basket of candidate measures, delivering on the reduction targets, should be developed and finalized,

comprised of both a technical element, namely a goal-based marine fuel standard regulating the phased reduction of the fuel's GHG intensity, and an economic element, on the basis of a maritime GHG emissions pricing mechanism.

7.9 The Committee also recalled that the timeline envisaged in the 2023 IMO GHG Strategy included the initiation of a comprehensive impact assessment (CIA) of the basket of candidate mid-term measures by MEPC 80 in July 2023, with an interim and a final report to be submitted to MEPC 81 and MEPC 82, respectively; the approval of measures during MEPC 83 (spring 2025); and their adoption during an extraordinary session of MEPC (autumn 2025).

7.10 The Committee further recalled that MEPC 80 had invited the Secretary-General to establish a Steering Committee to act as a focal point during the conduct of the CIA, in accordance with the *Revised procedure on assessing impacts on States of candidate measures* (MEPC.1/Circ.885/Rev.1) and the terms of reference approved at MEPC 80; and in this regard noted that the Secretary-General had established the Steering Committee, composed of 32 Member States, in August 2023, and had received interest in observing its work from several Member States, Associate Members and international organizations.

7.11 In this respect, the Committee noted documents MEPC 81/7 and Add.1 (Secretariat), providing the outcome of the first three meetings of the Steering Committee, which, together with an oral update provided by the moderator, Mr. H. Tan (Singapore), on the outcome of the fourth and fifth meetings during ISWG-GHG 16, represented the interim report submitted to this session.

7.12 The Committee also noted that the Steering Committee had agreed that the CIA would comprise five distinct but interrelated tasks, as follows:

.1 Task 1: Literature review, carried out by WMU;

.2 Task 2: Assessment of impacts of the basket of candidate mid-term measures on the fleet, carried out by DNV;

.3 Task 3: Assessment of impacts of the basket of candidate mid-term measures on States, carried out by UNCTAD;

.4 Task 4: Complementary qualitative/quantitative stakeholders' analysis, including relevant illustrative case studies, carried out by Starcrest Consulting; and

.5 Task 5: Identification of areas of missing data, quality assurance and quality control (QA/QC), uncertainty and sensitivity analyses and integration between various tasks.

7.13 The Committee further noted that the Steering Committee, up until its fifth meeting, had:

.1 considered, inter alia, the draft final report of WMU and had initiated the QA/QC process for Task 1;

.2 considered the inception report of DNV for Task 2, including methodology, preliminary input data and assumptions as well as the preliminary modelling results of 12 of the 20 initial scenarios of possible combinations of measures as defined by the Steering Committee;

.3 agreed, in general, on the proposed methodology and input data for Task 3 by UNCTAD, whilst noting that further discussion would be needed on how to model possible revenue distribution; and

.4 requested the Secretariat to contract Starcrest Consulting for undertaking Task 4, in accordance with the work plan which included conducting complementary qualitative and quantitative stakeholders' analyses for 10 States.

7.14 The Committee expressed its appreciation to the Steering Committee and all task leaders for their updates, acknowledging that the CIA was work in progress, and recalling that the CIA of the basket of candidate mid-term measures was an important element of the implementation of the 2023 IMO GHG Strategy and would inform the further consideration of the proposed measures. The Committee also thanked the Steering Committee for its very effective interaction with all task leaders and for achieving substantial progress in a very short time frame.

Further consideration of the development of the basket of candidate mid-term measures

7.15 The Committee noted that ISWG-GHG 16 had focused its consideration of the development of the basket of candidate mid-term measures on the following main proposals, for which relevant updates and revisions, including draft amendments to MARPOL Annex VI and proposed draft guidelines, had been submitted:

.1 "GHG Fuel Standard (GFS) with its Flexibility Compliance Mechanism" as the technical element, in combination with a "GHG pricing mechanism" covering all GHG emissions as the economic element, proposed by Austria et al. (ISWG-GHG 16/2/7, ISWG-GHG 16/2/8, ISWG-GHG 16/2/9, ISWG-GHG 16/2/10, ISWG-GHG 15/3/1, ISWG-GHG 15/3/2 and ISWG -GHG 13/4/8);

.2 "International Maritime Sustainable Fuels and Fund (IMSF&F) mechanism", with technical elements and economic elements integrated into a single measure, proposed by Argentina et al. (ISWG-GHG 16/2/13 and ISWG-GHG 16/2/14);

.3 "feebate mechanism", developed as an economic element separately from a technical element and comprising a mandatory contribution on GHG emissions and reward for zero-emission vessels by the Zero Emission Shipping Fund (ZESF), to be complemented by the "GHG Fuel Standard" as technical element, proposed by Japan (ISWG-GHG 16/2/12, ISWG-GHG 15/3, ISWG-GHG 14/3/1, ISWG-GHG 13/4/6, ISWG-GHG 12/3/17 and MEPC 78/7/5);

.4 "universal mandatory GHG levy" as economic measure, acting in combination with a "simplified global GHG fuel standard", as technical measure, proposed by Belize et al. (ISWG-GHG 16/2/5, MEPC 77/7/4 and MEPC 76/7/12);

.5 "Simplified Global (GHG) Fuel Standard with an energy pooling compliance mechanism", to be developed as a separate technical measure on the basis of an absolute fuel standard similar to the regulatory approach used for the global 0.50% sulphur limit ("IMO 2020") together with a separate maritime GHG emissions pricing mechanism, proposed by ICS and IBIA (ISWG-GHG 16/2);

.6 "Zero Emission Shipping Fund (ZESF)" and "Fund and Reward (Feebate) Mechanism", to be adopted as a separate maritime GHG emissions pricing mechanism as economic measure, in addition to a Global GHG Fuel Standard as technical measure, proposed by the Bahamas et al. (ISWG-GHG 16/2/3); and

.7 "Green Balance Mechanism", designed to work as part of an integrated measure or incorporated into complementary, but separate, technical and economic measures, proposed by WSC (ISWG-GHG 16/2/4).

7.16 The Committee also noted that ISWG-GHG 16 had considered the following documents submitted to MEPC 81 regarding the further consideration of the basket of candidate mid-term measures:

.1 MEPC 81/7/2 (WSC), identifying four regulatory elements considered critical to formulating an IMO GHG instrument that could achieve the necessary environmental outcome; and highlighting that these elements could be considered as cornerstones to an effective agreement that encouraged shipowners, operators and energy providers to make the necessary investments and enable the commercially viable operation of ships using advanced fuels and technologies;

.2 MEPC 81/7/9 (Republic of Korea), presenting the correlation of the 2023 IMO GHG Strategy with the short- and mid-term measures on the reduction of GHG emissions from international shipping; and discussing the various proposals for facilitating the development of future GHG reduction measures for meeting the levels of ambitions and indicative checkpoints for 2030 in the Strategy;

.3 MEPC 81/7/19 (ICS), proposing to task ISWG-GHG 17 with commencing detailed work on the development of necessary amendments to MARPOL Annex VI for submission to MEPC 82; and highlighting that ICS had co-sponsored document ISWG-GHG 16/2/3, which set out further details of a feebate mechanism to establish a ZESF and a package of possible draft amendments to MARPOL Annex VI to inform a decision at MEPC 81 on measures to be finalized and to expedite their approval; and

.4 MEPC 81/INF.26 (Japan), discussing research studies on GFI reduction pathways and requirements in light of the adoption of the 2023 IMO GHG Strategy; highlighting that the studies were implemented by the Japan Transport and Tourism Research Institute (JTTRI) for supporting the discussion on mid-term measures; and emphasizing the importance of using appropriate regulatory and incentive measures such as market-based measures (MBMs).

7.17 Following consideration, the Committee endorsed the way forward on the further development of the basket of candidate mid-term GHG reduction measures proposed by ISWG-GHG 16, and noted, in particular, that:

.1 with regard to the ongoing CIA of the basket of mid-term measures, ISWG-GHG 16 had noted the progress made and the interim results, and had requested the Secretariat to convey comments made and questions posed by delegations during ISWG-GHG 16, following its consideration of the interim report, to the Steering Committee for further consideration in their future work in accordance with the terms of reference approved by MEPC 80;

.2 with regard to proposals for a goal-based marine fuel standard regulating the phased reduction of marine fuel's GHG intensity, ISWG-GHG 16 had:

.1 committed to further develop such a standard as part of the basket of mid-term measures, taking into account the well-to-wake (WtW) GHG emissions of marine fuels as addressed in the LCA Guidelines, including to further consider the proposed different approaches to its operationalization; and

.2 agreed that further work remained to frame the GHG fuel intensity baseline and reduction trajectory in line with the levels of ambition and indicative checkpoints set out in the 2023 IMO GHG Strategy;

.3 with regard to proposals for flexible compliance strategies and relevant reporting and verification requirements in support of the goal-based marine fuel standard, ISWG-GHG 16 had noted:

.1 the considerable convergence within the Group to include flexible compliance strategies as elements in support of the implementation of the goal-based marine fuel standard;

.2 the increasing convergence within the Group on the development of flexible compliance strategies, based on the transaction of over-compliance units, the cancellation of remedial units and pooling;

.3 that several delegations could not agree to the proposed flexibility mechanisms, being of the view that these were not necessary and would lead to possibly unintended consequences and unequal access to such flexible compliance options, in particular in countries without the experience and scale to operate in complex trading markets and which were served by older shipping tonnage, and where, therefore, this would result in an economic transfer from least developed economies to the most developed economies;

.4 that there were remaining divergences within the Group on methodological issues relating to flexible compliance strategies as well as on how to set the price of remedial/surplus units and how to incentivize the transition to zero- and near-zero emission fuels and technologies whilst not over-penalizing non-compliant ships and maintaining a level playing field; and

.5 the broad support within the Group for the use of existing IMO instruments for reporting and verification requirements, while also noting the need to further consider the development of additional tools such as a central registry;

.4 with regard to the proposals on (other) maritime GHG emissions pricing mechanisms, revenue collection and distribution, ISWG-GHG 16:

.1 had reiterated its commitment to the development, as part of the basket of mid-term measures, of an economic element, on the basis of a maritime GHG emissions pricing mechanism as agreed in the 2023 IMO GHG Strategy, which aimed to "promote the energy

transition of shipping and provide the world fleet a needed incentive while contributing to a level playing field and a just and equitable transition", which might or might not include complementary elements;

.2 in recognizing that all delegations saw merit in developing a global fuel standard alongside a GHG pricing mechanism, had noted that there were still divergent views on several issues relating to the further development of a complementary maritime GHG pricing mechanism as part of the basket of mid-term measures. In particular, different views were expressed over an integral approach where technical and economic elements would be integrated into the goal-based marine fuel standard through flexibility compliance strategies versus an approach where a complementary GHG pricing mechanism covering all emissions would be developed, in addition to the goal-based marine fuel standard; and

.3 had noted that the candidate economic elements would be assessed observing specific criteria to be considered in the ongoing CIA, with a view to facilitating the finalization of the basket of mid-term measures; and

.5 with regard to the further work on the development of the basket of mid-term measures, ISWG-GHG 16 had remained committed to the further development of the basket, in accordance with the timelines set out in the 2023 IMO GHG Strategy; and had noted the commitment and willingness expressed by many delegations to continue to work together to improve their common understanding and to explore possible convergences among the different proposals in the further development of the basket.

7.18 Following the suggestions by ISWG-GHG 16 on how to advance the further work on developing the basket of mid-term measures, the Committee:

.1 requested the Secretariat to organize a two-day expert workshop (GHG-EW 5) on further developing the basket;

.2 instructed the Working Group on Reduction of GHG Emissions from Ships to develop terms of reference for the above-mentioned expert workshop; and

.3 agreed to the holding of the seventeenth meeting of the Intersessional Working Group on Reduction of GHG Emissions from Ships (ISWG-GHG 17), to be held preferably back-to-back with MEPC 82, subject to endorsement by the Council.

Further development of the life cycle GHG assessment (LCA) framework

7.19 The Committee recalled that MEPC 80, having adopted the *Guidelines on life cycle GHG intensity of marine fuels* (LCA Guidelines) (resolution MEPC.376(80)), had endorsed the recommendations of ISWG-GHG 15 on intersessional follow-up work on the LCA framework, and consequently had:

.1 established the Correspondence Group on Further Development of the LCA Framework, under the coordination of Brazil, Japan and EC;

.2 requested the Secretariat to:

.1 undertake a review of existing practices on sustainability aspects/certification and third-party verification issues; and

.2 organize an expert workshop on the life cycle GHG intensity of marine fuels, using the outcome of the aforementioned review as the basis for discussion; and

.3 agreed to add to the terms of reference of ISWG-GHG 16 an item on further development of the LCA framework.

7.20 The Committee noted the considerations of ISWG-GHG 16 on the further development of the LCA framework, including its consideration of the following documents submitted to MEPC 81:

.1 MEPC 81/7/4 (Brazil et al.), providing the report of the Correspondence Group on the Further Development of the LCA Framework; proposing amendments to the LCA Guidelines and possible ways of undertaking the continuous scientific review of the Guidelines, such as the establishment of a dedicated expert group;

.2 MEPC 81/7/6 (EDF), discussing the extent and impact of hydrogen emissions from the production and carriage of hydrogen; identifying significant uncertainties in the emissions rates of hydrogen within the value chain (from leakage, purging, venting), with both environmental and safety implications; and highlighting that hydrogen could have a significant indirect global warming impact which necessitated additional measures to eliminate, or at least minimize, leakage on safety and environmental grounds;

.3 MEPC 81/7/7 (Republic of Korea), proposing to clarify the system boundaries of the LCA Guidelines for their application in calculating and assessing the annual GHG emissions from international shipping within the context of the 2023 IMO GHG Strategy; and to proceed with their further development;

.4 MEPC 81/7/10 (RINA), describing different methodologies and their accuracy in quantifying ship level methane slip; providing information to be used in the development of regulatory measures aimed at limiting methane emissions from shipping; and proposing the inclusion of methane slip in a potential GHG Fuel Standard in light of the 2023 IMO GHG Strategy and the LCA Guidelines;

.5 MEPC 81/7/11 (Austria et al.), commenting on the report of the Correspondence Group (MEPC 81/7/4); highlighting the importance of ensuring the continuation of further technical discussion and work towards the identification of relevant methodologies for verification and certification of actual methane and nitrous oxide tank-to-wake emission factors; and proposing draft terms of reference for the re-establishment of the Correspondence Group after MEPC 81;

.6 MEPC 81/7/13 (Norway et al.), commenting on the report of the Correspondence Group; raising a number of issues requiring further consideration and policy decisions by the Committee; and proposing that the Working Group on Air Pollution and Energy Efficiency be tasked with considering how a framework for the measurement of emissions of methane, nitrous oxide and other GHGs, along with associated engine certification issues, could be developed;

.7 MEPC 81/7/14 (EUROMOT), commenting on the report of the Correspondence Group and raising a number of issues relating in particular to the certification procedure of tank-to-wake (TtW) methane and nitrous oxide actual emission factors and the development of default factors, which required further consideration and policy decisions by the Committee;

.8 MEPC 81/7/15 (Australia et al.), commenting on the report of the Correspondence Group (MEPC 81/7/4); and proposing the establishment of an expert group on LCA matters of a technical nature, including information and possible ways forward regarding its composition, operating rules, funding and work programme;

.9 MEPC 81/7/16 (China), commenting on the report of the Correspondence Group on the Further Development of the LCA Framework (MEPC 81/7/4); and proposing amendments to the formula for emission credit (e_{occs}) in the LCA Guidelines by removing e_{cc}, e_t, and e_{st} from the formula;

.10 MEPC 81/7/17 (China), commenting on the report of the Correspondence Group (MEPC 81/7/4); highlighting the need to add an independent after-treatment systems emission factor to the LCA Guidelines TtW equation; and providing draft amendments to the Guidelines;

.11 MEPC 81/7/18 (Norway), commenting on the report of the Correspondence Group (MEPC 81/7/4); proposing that when developing default emission factors for fossil fuels, it should be taken into account that fossil fuels could not certify actual well-to-wake (WtW) values in the current LCA framework; and highlighting the need to amend the Guidelines;

.12 MEPC 81/7/20 (WWF et al.), commenting on the report of the Correspondence Group (MEPC 81/7/4); summarizing the key findings of the FUMES project; and proposing that the Committee agree to a default C_{slip} value of at least 6% for LPDF 4-stroke engines under the LCA Guidelines, based on the results of the project;

.13 MEPC 81/INF.8 (Austria et al.), providing an overview of potential options for certification of TtW methane (CH_4) and nitrous oxide (N_2O) emissions and C_{slip} from engines/energy converters, inclusive of any after-treatment technology; and further discussing the benefits and drawbacks of different approaches;

.14 MEPC 81/INF.11 (Secretariat), providing the report of the Ad Hoc Expert Workshop on the Life Cycle GHG Intensity of Marine Fuels (GHG-EW 4) (14 and 15 December 2023); and highlighting the main discussion points on sustainability aspects in the LCA framework and a review of existing practices on sustainability aspects/certification and third-party verification issues of marine fuels in the framework; and

.15 MEPC 81/INF.20 (Brazil et al.), collating comments submitted to the Correspondence Group during the four consultation rounds; and presenting a collation of views on the template for the WtT data collection, TtW default emission factors for the fuel pathways, methodological refinements and determination of the WtT default emission factors.

7.21 The Committee also noted that ISWG-GHG 16, following its consideration of documents MEPC 81/7/4 and MEPC 81/INF.20, had finalized the draft revised LCA guidelines which addressed the following aspects:

.1 amendments to sections 4, 5, 9 and 10, and appendix 3 resulting from consideration of the methodological elements identified in its terms of reference, in particular the quantification of parameters related to biofuel production, evaluation of GHG intensity of electricity and actual TtW methodologies for actual/onboard emission factors;

.2 amendments to appendix 4 and addition of new appendix 5 for future submission template of both WtT and TtW default emission factor data; and

.3 editorial amendments to appendix 2 on the WtT default emission factor.

7.22 Following consideration, the Committee adopted resolution MEPC.391(81) on *2024 Guidelines on life-cycle GHG intensity of marine fuels* (2024 LCA Guidelines), as set out in annex 10.

7.23 The Committee endorsed the recommendations of ISWG-GHG 16 on follow-up work on the further development of the LCA framework and consequently:

.1 agreed, in principle, to the establishment of a GESAMP Working Group on Life-Cycle GHG Intensity of Marine Fuels (GESAMP-LCA WG) to review scientific and technical issues; and

.2 instructed the Working Group on Reduction of GHG Emissions from Ships to identify the remaining issues on the further development of the LCA framework and propose a way forward to advance those issues intersessionally, including preparing draft terms of reference for the proposed GESAMP-LCA WG and a work plan with details on deadlines, deliverables and funding, using a template to be provided by the Secretariat and the possible tasks identified in documents MEPC 81/7/15 and ISWG-GHG 16/3/1 as the basis, taking into account documents MEPC 81/7/6, MEPC 81/7/7, MEPC 81/7/11, MEPC 81/7/13, MEPC 81/7/16, MEPC 81/7/17, MEPC 81/7/18, MEPC 81/7/20, ISWG-GHG 16/3/2, ISWG-GHG 16/3/4 and ISWG-GHG 16/3/6.

7.24 With regard to the establishment of the GESAMP-LCA WG, the delegation of Argentina, in expressing support for the establishment of the Group, stressed that its composition, whilst ensuring its technical competence, should also be geographically balanced.

7.25 With regard to sustainability aspects/certification and third-party verification issues, including possible approaches to address indirect land use change (ILUC), the Committee noted that, following the request of MEPC 80, the Secretariat had conducted a review of existing practices on those issues (ISWG-GHG 16/3), and organized an Ad Hoc Expert Workshop on the Life-Cycle GHG Intensity of Marine Fuels (GHG-EW 4), held on 14 and 15 December 2023, the report of which was provided in document MEPC 81/INF.11.

7.26 The Committee, in endorsing the recommendations of ISWG-GHG 16, instructed the APEE Working Group, established under agenda item 5 (see paragraph 5.16), to:

.1 consider how to develop a framework for the measurement and verification of TtW emissions of CH_4, N_2O and other GHGs, along with associated engine certification issues, in the context of the further development of the LCA Guidelines, taking into account documents ISWG-GHG 16/3/2, MEPC 81/7/20, MEPC 81/7/10, MEPC 81/7/11, MEPC 81/7/13, MEPC 81/7/14, MEPC 81/7/17, and MEPC 81/7/INF.8, and advise the Committee accordingly; and

.2 if the outcome of the discussion so indicated, develop draft terms of reference for a correspondence group to advance the consideration of this issue intersessionally.

Consideration of proposals related to onboard CO_2 capture

7.27 The Committee recalled that MEPC 80, following consideration of various proposals related to onboard CO_2 capture (OCC), had instructed ISWG-GHG 16, time permitting, to consider the proposals, using document MEPC 80/7/7 (China et al.) as the basis and taking into account documents MEPC 80/7 and MEPC 80/INF.14 (RINA), MEPC 80/7/10 (IBIA), MEPC 80/INF.31 (Republic of Korea), MEPC 80/INF.32 (India), MEPC 79/7/4 (Liberia and ICS), MEPC 79//7/6 and MEPC 79/7/7 (China), MEPC 79/7/16 (Norway), and MEPC 79/7/22 and MEPC 79/INF.27 (Republic of Korea), and to advise the Committee on a way forward.

7.28 The Committee noted that ISWG-GHG 16 had considered the following documents relating to OCC:

.1 MEPC 81/INF.17 (Liberia), containing a case study by Seabound on their OCCS installed on a 3,200 TEU containership for pilot trials; and highlighting that the success of the pilot project demonstrated the feasibility of a new category of marine decarbonization technology viable for use on board ships;

.2 MEPC 80/7 (RINA), presenting an analysis of technical and economic aspects of OCC technology applied to different ship types and sizes (container, bulk and tanker), main carbon-based fuels and full and partial application as part of a retrofit or newbuild; indicating that while currently energy requirements linked to OCC and its CO_2 abatement costs were high, further developing OCC could play a role in the mid-term to reduce the emission intensity of fossil-fuelled ships based on analysis of technical feasibility, carbon emission reduction performance, design integration, and CO_2 abatement costs of a series of case studies;

.3 MEPC 80/7/7 (China et al.), proposing a dedicated work stream on OCC and that, as the first step, a structured review of the current IMO regulatory framework should be undertaken as part of the development of a work plan to accommodate OCC; and that the APEE Working Group should further consider the proposed work stream and, if appropriate, develop terms of reference for a correspondence group to advance the work on OCC;

.4 MEPC 80/7/10 (IBIA), focusing on the identification of requirements for preparation of marine diesel engine exhaust gases for shipboard carbon capture (SBCC) technologies; and providing an indication of the merits of OCC as a transition solution towards a net zero goal; outlining proposals to develop a standard for pre-SBCC exhaust gas preparation; and suggesting starting working towards the enabling of advanced exhaust gas

cleaning technology to meet required performance criteria for both human health and SBCC, including means to assure effective and measured performance in service;

.5 MEPC 80/INF.14 (RINA), containing the full report of a study on OCC technology, as referred to in document MEPC 80/7, applied to different ship types and sizes, as part of a retrofit or newbuild;

.6 MEPC 80/INF.31 (Republic of Korea), providing a preliminary assessment of zero and negative emissions depending on the origin of carbon in fuel and the fate of CO_2; highlighting the accounting challenge of emissions from international shipping; and further stating that it was critical to effectively and accurately account for GHG emissions that originated from the introduction of sustainable marine fuels and OCC to provide clear signals to stakeholders;

.7 MEPC 80/INF.32 (India), proposing initiation of policy action to limit GHG emissions from engine exhausts through carbon capture, storage, utilization/sequestration (CCUS), highlighting that carbon capture technologies on board ships and offshore facilities were well suited for post combustion carbon capture comprising a range of technical solutions, and further mentioning that India had initiated accelerating CCUS technology through the Department of Science and Technology of the Government of India;

.8 MEPC 79/7/4 (Liberia and ICS), proposing to consider the CO_2 reduction obtained from carbon capture technologies and to regulate them in the EEDI/EEXI and CII frameworks; in particular proposing that the CO_2 reduction related to the use of CCS and CCUS, independently from the technology applied, be considered in the calculation of the Attained EEDI/EEXI and Attained CII; providing a draft circular on the sample format for the information to be included in a proposed "Receipt Note"; proposing draft amendments to the 2018 EEDI Calculation Guidelines and the CII Guidelines (G1); and suggesting that the Committee establish a correspondence group on CCS/CCUS with suggested draft terms of reference;

.9 MEPC 79/7/6 (China), proposing amendments to the 2018 EEDI Calculation Guidelines to incorporate the positive emission reduction effects by the installation of a Carbon Capture System for Ship Exhaust Gas (CCSE), consisting of adding the CO_2 capture rate after installation of CCSE on board the ship and its correction factor, and additional CO_2 emission in unit time due to installation of CCSE in the EEDI formula;

.10 MEPC 79/7/7 (China), proposing amendments to the 2014 EEDI Survey and Certification Guidelines, taking into account the updated EEDI Calculation Guidelines (MEPC 79/7/6), which would incorporate the positive emission reduction effects by the installation of a CCSE, to supplement the existing EEDI Survey and Certification Guidelines to adapt to the installation of CCSE on board a ship; and to amend the preliminary verification of the attained EEDI at design stage and final verification at sea trial;

.11 MEPC 79/7/16 (Norway), suggesting considering how CCS could reduce GHG emissions from shipping; also suggesting issues to be addressed in relation to accounting, verification and certification to enable the use of

carbon capture technology on ships and ensure responsible handling and storage of the captured CO_2; and further suggesting that the Committee consider the use of CCS technology in shipping within a dedicated work stream with suggested draft terms of reference;

.12 MEPC 79/7/22 (Republic of Korea), proposing to include CO_2 reduction of OCC systems in the IMO GHG regulatory framework, including EEDI, EEXI and CII; also suggesting that this would remove regulatory barriers to innovative technology and provide a level playing field and cost- effective opportunity for the decarbonization of the shipping industry; and

.13 MEPC 79/INF.27 (Republic of Korea), introducing recent developments of an OCC system in the Republic of Korea; illustrating the composition of the system divided into three distinct systems: exhaust gas pretreatment system, CO_2 absorption system and CO_2 sequestration system; and providing information on various test projects and a road map of a research project by a government-funded research institute for OCCS, to be concluded by 2026.

7.29 Having considered the recommendations of ISWG-GHG 16 on follow-up work on onboard CO_2 capture, the Committee instructed the APEE Working Group to:

.1 develop a work plan on developing a regulatory framework for the use of onboard CO_2 capture, using paragraph 31 of document MEPC 80/7/7 as the basis, with the exception of matters related to accounting of CO_2 captured and the consideration of system boundaries of the LCA Guidelines in relation to onboard CO_2 capture, which were to be considered in the context of the further development of the LCA Guidelines, also taking into account document ISWG-GHG 16/4/1; and

.2 if the outcome of the discussion so indicated, to develop draft terms of reference for a correspondence group to advance the consideration of this issue intersessionally.

7.30 In this regard, the observer from BIMCO expressed the view that in light of technical advances in onboard carbon capture technology, which included the ability to capture elemental carbon before combustion, it would be appropriate to refer to "onboard carbon capture" rather than "CO_2 capture". Following consideration, the Committee agreed that the proposal could be further considered by the Working Group on Air Pollution and Energy Efficiency when developing the work plan.

Any other business

7.31 The Committee noted that ISWG-GHG 16 had considered document MEPC 81/7/3 (IUMI et al.), presenting a glossary of climate change definitions in relation to shipping; proposing to develop a glossary of definitions relevant to the reduction of GHG emissions from shipping to harmonize the language used in the shipping industry; and suggesting that the glossary be used for further discussions on terminology. Following consideration, the Committee requested the Secretariat to disseminate the glossary as information, without endorsement by the Committee or the Organization, through the newly developed online information portal of the IMO Future Fuels and Technology Project.

7.32 In this regard, the Committee noted that the IMO Future Fuels and Technology Project website served primarily as an information portal to enhance access to relevant material on the decarbonization of international shipping, but that the sources referred to on the website were for information only and did not constitute endorsement by the Organization.

7.33 The Committee also agreed to refer document ISWG-GHG 16/5 (EDF), containing proposals relating to the review of the CII, to MEPC 82 for further consideration, in the context of the review of the short-term GHG reduction measures.

Update on the IMO GHG TC Trust Fund and the Voluntary Multi-Donor Trust Fund for participation in GHG meetings

7.34 The Committee noted documents MEPC 81/7/1 and MEPC 81/7/5 (Secretariat), providing an update on the IMO GHG TC Trust Fund and an overview of the actions undertaken by the Secretariat in the follow-up to resolution MEPC.229(65) on *Promotion of technical cooperation and transfer of technology relating to the improvement of energy efficiency of ships*, respectively, together with an oral update by the Secretariat.

7.35 With regard to the IMO GHG TC Trust Fund, the Committee noted with appreciation that, since its establishment in 2019, voluntary financial contributions (including pledges made up to the end of December 2023) of approximately $2 million had been received and that the Trust Fund had significantly supported the regulatory work of the Committee, notably by funding the Fourth IMO GHG Study 2020 and the CIAs of the short-term GHG reduction measure and the basket of mid-term measures, thereby facilitating the Committee's informed and evidence-based decision-making.

7.36 Following consideration and having recognized the various important GHG-related studies and initiatives conducted with the support of the Trust Fund, the Committee agreed to amend its terms of reference, as set out in annex 11, to reflect the adoption of the 2023 IMO GHG Strategy at MEPC 80.

7.37 With regard to the Voluntary Multi-Donor Trust Fund to facilitate the participation of developing countries, especially SIDS and LDCs, in MEPC and ISWG-GHG meetings, the Committee noted with appreciation the contributions to the Fund since MEPC 80, which had funded the in-person attendance of a total of 41 representatives from 34 countries at ISWG-GHG 16 and MEPC 81.

7.38 Having noted the important roles of both Trust Funds in supporting the global implementation of the 2023 IMO GHG Strategy, and having expressed appreciation to the contributors to both Funds, the Committee encouraged Member Governments and international organizations to consider making additional financial contributions to the two Funds to continue assisting developing States, in particular SIDS and LDCs, with the implementation of the 2023 IMO GHG Strategy. In this connection, the Committee, having noted the request by the delegation of the Cook Islands recalling their similar request during MEPC 80 (MEPC 80/17, paragraph 7.8), requested the Secretariat to explore, taking into account availability of funds and the necessary administrative and logistical requirements, whether the Voluntary Multi-Donor Trust Fund could also cover the participation of eligible members of the Steering Committee on the CIA in their upcoming meetings.

Updates concerning TC and technology transfer (resolution MEPC.229(65))

7.39 With regard to the activities undertaken by the Secretariat in response to resolution MEPC.229(65) and MEPC.1/Circ.861 on *Model Agreement between Governments on technological cooperation for the implementation of the regulations in chapter 4 of MARPOL Annex VI*, the Committee noted with appreciation the information and updates provided by the Secretariat (MEPC 81/7/5).

7.40 In the ensuing discussion, many delegations expressed their appreciation for the assistance provided by the Organization to support the implementation of the 2023 IMO GHG Strategy through the Integrated Technical Cooperation Programme (ITCP), the IMO GHG TC Trust Fund, and the various GHG-related projects, such as the GreenVoyage2050 Project, the global network of IMO Maritime Technologies Cooperation Centres (MTCCs), IMO CARES, and IMO NextGEN, and invited the respective donors to consider future financing to allow for the long-term continuation of these initiatives.

Proposals concerning a possible Fifth IMO GHG Study

7.41 The Committee recalled that MEPC 75 had approved the Fourth IMO GHG Study 2020, containing emission inventories, carbon intensity developments and emission projections for the period 2012 to 2018.

7.42 The Committee also recalled that, in considering a possible Fifth IMO GHG Study, MEPC 80 had discussed the inclusion of a reference and timeline for the Study in the 2023 IMO GHG Strategy, but had agreed to re-assess the necessity, scope and timeline at a later stage, also taking into account the annual DCS and carbon intensity reporting by the Secretariat, as well as other relevant assessments and/or studies (MEPC 80/WP.7, paragraph 62).

7.43 The Committee had for its consideration the following two documents proposing to initiate a Fifth IMO GHG Study:

.1 MEPC 81/7/8 (Australia and Republic of Korea), proposing the initiation of a Fifth IMO GHG Study 2025 (2018-2023) and an indicative timeline; and highlighting the importance of such a study for facilitating a comparative analysis of the results after the implementation of short-term measures from 2023, as well as the Initial Strategy and the 2023 IMO GHG Strategy; and

.2 MEPC 81/7/21 (Canada et al.), commenting on document MEPC 81/7 on the comprehensive impact assessment of the basket of candidate mid-term measures and document MEPC 81/7/8 on the initiation of a Fifth IMO GHG Study.

7.44 In the ensuing discussion, during which reference was also made to document ISWG-GHG 15/2/6 (Republic of Korea), the majority of delegations that spoke supported, in principle, the initiation of a Fifth IMO GHG Study as an effective means to provide the Organization with relevant GHG emissions data which could inform the Committee's GHG-related policy discussions. The following views, among others, were expressed:

.1 a Fifth IMO GHG Study could facilitate a structured and analytical approach to track progress towards the achievement of the goals of the 2023 IMO GHG Strategy; could inform the 2028 review of the Strategy by providing the latest scientific data and an assessment of availability of zero and near-zero marine fuels up to 2050; and should therefore be completed by MEPC 85 in 2026, ahead of the initiation of the review process, envisaged to start in 2027;

.2 the Study should be conducted without jeopardizing the timeline for approval and adoption of mid-term GHG measures and should not intervene with the ongoing work of the Steering Committee on the CIA of the basket of mid-term GHG reduction measures;

.3 when the Organization had conducted previous IMO GHG Studies, it did not have annual DCS and carbon intensity data at its disposal, as was the case now. In view of the administrative and resource implications of preparing another Study, it would be preferable to receive annual emissions estimates from the Secretariat using DCS data and other available information, instead of initiating a Fifth IMO GHG Study;

.4 referring to the proposal in document ISWG-GHG 16/2/8 (Austria et al.), it was suggested that the Committee request the Secretariat to conduct a study separate from a possible Fifth IMO GHG Study, to determine energy consumption projections of the world fleet to allow for more precise estimations of the GHG fuel intensity (GFI) trajectory necessary to deliver the goals and checkpoints set out in the 2023 IMO GHG Strategy; and

.5 the Committee should instruct ISWG-GHG 17 to further consider possible terms of reference for a Fifth IMO GHG Study, taking into account documents MEPC 81/7/8 and MEPC 81/7/21.

7.45 Following consideration, the Committee, while having noted the need for further discussion on possible terms of reference and timelines, agreed that there was general support to initiate a Fifth IMO GHG Study, and subsequently requested the Secretariat to submit a proposal with draft terms of reference, suggested timelines, logistics and administrative arrangements to MEPC 82, taking into account relevant documents submitted to this session and the comments made. The Committee also invited interested Member States and international organizations to submit further proposals and comments on this matter to MEPC 82.

Update on GHG reduction activities and technologies

7.46 With regard to recent GHG reduction activities and technologies, the Committee noted the following documents:

.1 MEPC 81/7/12 (ICC), underscoring the importance of a just and equitable transition to include measures for recognizing and addressing impacts on the cultural heritage of indigenous peoples; and urging the Committee to explore best practices in relation to supporting the protection and revitalization of indigenous cultural heritage with respect to all issues within its mandate, including response and liability for marine spill incidents;

.2 MEPC 81/INF.5 (ZESTAs), presenting a detailed discussion on the commercial and technical readiness of absolute zero GHG technologies built and validated in a marine operational environment; and providing various case studies on technologies operational on a commercial basis, including those on absolute zero GHG emission ships;

.3 MEPC 81/INF.23 (OCIMF and INTERTANKO), informing about the progress by an OCIMF work group, composed of industry experts from organizations representing standardization bodies, tanker owners, tanker operators, charterers, ports and terminals, and classification societies, for developing guidance for the safe application of onshore power supply (OPS) alongside the berth for tankers, the terminal and their interface;

.4 MEPC 81/INF.25 (RINA), presenting the modelling of projected methane emissions from the use of LNG as a marine fuel towards 2050, based on pertinent assumptions on LNG uptake across different shipping segments, ship operation, methane slip and after-treatment technology options; further assessing the impact of various methane slip reduction measures on the projected overall methane and GHG emissions from shipping; and underscoring the results that supported the potential benefits of developing a regulatory approach to limit methane slip emissions in the industry;

.5 MEPC 81/INF.37 (Canada), presenting WtW GHG emissions and intensity pathways for the international shipping sector under various warming scenarios within the Paris Agreement temperature goal ($1.5°C \leq \Delta T < 2°C$); underscoring the results which indicated that the emissions targets in the 2023 IMO GHG Strategy were aligned with the "1.5°C warming limit (with a probability of 50%, with no or limited overshoot)" scenario in consideration with certain caveats; and providing recommendations to remain within the 1.5°C GHG budget, including the urgent need to develop and implement mid-term measures, in particular a GHG pricing scheme and a GHG fuel intensity standard sufficiently stringent to deliver on the strategy's emissions reduction targets;

.6 MEPC 81/INF.39 (Comoros et al.), presenting the IWSA wind propulsion white paper, which delivered a detailed baseline assessment of wind propulsion technology systems and outlined pathways under way for the dissemination and scaling of this technology segment; and giving, in addition to information in document MEPC 79/INF.21, additional technology and policy context and a detailed macro and microeconomic analysis of the benefits of following a wind-hybrid decarbonization pathway; and

.7 MEPC 81/INF.40 (RINA and IWSA), presenting additional considerations when applying wind probability as used in circular MEPC.1/Circ.896 for the assessment of the performance of wind assistance propulsion systems in EEDI and EEXI; and informing that this document contributed to the review process of the methods adopted and outlined an approach that used adjusted wind probability derived using global wind routing studies.

Establishment of a Working Group

7.47 The Committee established the Working Group on Reduction of GHG Emissions from Ships and instructed it, taking into account the comments, proposals and decisions made in plenary, and relevant documents submitted to MEPC and ISWG-GHG, to:

.1 prepare draft terms of reference for ISWG-GHG 17;

.2 prepare draft terms of reference for the Fifth GHG Expert Workshop on the further development of the basket of mid-term measures (GHG-EW 5);

.3 identify the remaining issues on the further development of the LCA framework and propose a suggested way forward to advance those issues intersessionally, including preparing draft terms of reference for the proposed GESAMP-LCA WG and a work plan that contained details on deadlines, deliverables and funding, using a template to be provided by the Secretariat, and using possible tasks identified in documents MEPC 81/7/15 and ISWG-GHG 16/3/1 as the basis, taking into account documents

MEPC 81/7/6, MEPC 81/7/7, MEPC 81/7/11, MEPC 81/7/13, MEPC 81/7/16, MEPC 81/7/17, MEPC 81/7/18, MEPC 81/7/20 and ISWG-GHG 16/3/2, ISWG-GHG 16/3/4 and ISWG-GHG 16/3/6; and

.4 further consider the development of the basket of mid-term GHG reduction measures.

7.48 The delegation of China, in expressing general support for establishing the GESAMP-LCA WG, stressed that, given the scientific and technical nature of the Group, some areas of further work on the development of LCA framework, such as procedures for fuels certification schemes, should not be referred to the Group as the delegation considered these to be of a policy nature. They sought clarification whether the Working Group on Reduction of GHG Emissions from Ships, in line with its agreed terms of reference, could also prepare draft terms of reference for a possible correspondence group to be re-established at this session to advance consideration intersessionally of matters not included in the terms of reference for the proposed GESAMP-LCA WG.

7.49 Some other delegations expressed the view that all of the proposed areas of work would be scientific or technical in nature and recalled that the LCA Correspondence Group had identified that continuation of a correspondence group would not be conducive to advancing matters at this stage,

7.50 Following consideration, the Committee agreed that the Working Group could also consider possible ways to advance remaining issues on the further development of the LCA framework intersessionally other than by the GESAMP-LCA WG, and could prepare draft terms of reference accordingly.

7.51 The observer from ICC, in referring to their document MEPC 81/7/12, urged the Committee to consider how to explore best practices in relation to supporting the protection and revitalization of indigenous cultural heritage in the various GHG-related work streams. In response, the Committee noted that the document could be considered, among other relevant submissions, in the context of the further consideration of the development of the basket of mid-term GHG reduction measures.

Report of the Working Group

7.52 Having considered the report of the Working Group on Reduction of GHG Emissions from Ships (MEPC 81/WP.8), the Committee approved it in general and took action as outlined below.

Terms of reference for ISWG-GHG 17

7.53 The Committee approved, subject to endorsement by the Council, the holding of the seventeenth meeting of the Intersessional Working Group on Reduction of GHG Emissions from Ships (ISWG-GHG 17), and instructed it, taking into account documents submitted to ISWG-GHG 17, the final report on the comprehensive impact assessment of the basket of candidate mid-term measures, the report of the expert workshop (GHG-EW 5) on the further development of the basket of mid-term measures, and relevant documents submitted to MEPC 82 as well as to previous sessions, to:

.1 further consider the development of the basket of candidate mid-term measure(s);

.2 further consider the development of the Life Cycle GHG Assessment (LCA) framework;

.3 develop draft terms of reference for the Fifth IMO GHG Study; and

.4 submit a written report to MEPC 82.

Terms of reference for GHG-EW 5

7.54 The Committee requested the Secretariat to organize a two-day Fifth GHG Expert Workshop on the further development of the basket of mid-term measures (GHG-EW 5) to facilitate the understanding of the preliminary findings of the CIA. The Committee agreed that the workshop should address all aspects of the CIA, including the modelling of revenue disbursement used as part of the assessment of impacts on States, taking into account the progress made within the Steering Committee. The outcome of the workshop should be reported to MEPC 82. The Committee further requested the Secretariat to specify the dates for the workshop in the Circular Letter inviting participation, and to invite the task leaders of the CIA to present the progress made under their respective tasks during the workshop.

Remaining issues on the further development of the LCA framework and proposed way forward to advance those issues intersessionally, including terms of reference of the GESAMP-LCA WG

7.55 The Committee, having agreed, in principle, to proceed with the establishment of a GESAMP working group and having instructed the Working Group to identify remaining issues on the further development of the LCA framework and a proposed way forward to advance those intersessionally, including preparing terms of reference of the GESAMP-LCA WG (see paragraph 7.23), noted information by the IMO Technical Secretary of GESAMP, providing background information on general arrangements for the establishment of GESAMP working groups (MEPC 81/WP.8, annex 1), clarifying matters related to, inter alia, the process for approval of new GESAMP working groups, the nomination and selection of experts, provisions on ensuring geographical and gender balance, and the possibility to amend the terms of reference of a GESAMP working group. The Committee also noted that the report of the first meeting of the GESAMP-LCA WG would realistically only be available for consideration by MEPC 83.

7.56 The Committee approved the terms of reference for the new GESAMP-LCA WG, as set out in document MEPC 81/WP.8, annex 2, and requested the Secretariat to finalize a request for the new Group for submission to GESAMP, emphasizing that particular consideration should be given by GESAMP to ensure that the composition of the Group is geographically and gender balanced.

7.57 The Committee invited interested Member States and international organizations to consider making financial contributions to support the work of the GESAMP-LCA WG, and to submit suggestions for possible experts to the Secretariat, for validation by GESAMP.

7.58 The Committee established the Correspondence Group on the Further Development of the LCA Framework, to be coordinated by the United States,[3] to advance intersessionally

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on other remaining areas of further work, and instructed it, using the 2024 LCA Guidelines as the basis, also taking into account previous reports of the Correspondence Group on the Further Development of the LCA Framework (MEPC 81/7/4, MEPC 80/7/4 and MEPC 79/7/12) and relevant decisions and comments made at ISWG-GHG 16 and MEPC 81, to:

.1 further consider "Other social and economic sustainability themes/aspects of marine fuels", as referred to in paragraph 7.1 of the 2024 LCA Guidelines, for possible inclusion in the Guidelines; and

.2 submit a written report to MEPC 83.

Further consideration of the development of the basket of mid-term GHG reduction measures

7.59 The Committee noted that, on the basis of the progress made on the development of the basket of mid-term GHG reduction measures during ISWG-GHG 16, as endorsed by the Committee, the Group had further considered how to advance the development of the basket of measures at this session and intersessionally.

7.60 In this regard, the Committee noted that the Group, in reiterating their willingness to work together on the basis of identified commonalities and convergences, had developed an illustration of a draft possible outline of the "IMO net-zero framework", including possible chapters and regulations in MARPOL Annex VI that might have to be amended, which would also facilitate joint work by delegations on a possible consolidated proposal for consideration at the next session.

7.61 Consequently, the Committee agreed on the *Illustration of a draft possible outline of the "IMO net-zero framework"*, as set out in annex 12, with the understanding that this outline could be used as a starting point for consolidating the different proposals into a possible common structure, for further development taking into account the deliberations of the Group, while noting that this would not prejudge any possible future changes to it.

7.62 The Committee also invited interested Member States and international organizations to work together intersessionally with a view to preparing a consolidated proposal for the basket of mid-term measures for consideration at the next session, using the draft possible outline of the "IMO net-zero framework", as appropriate.

7.63 Subsequently, a great number of delegations welcomed the agreed *Illustration of a draft possible outline of the "IMO net-zero framework"* and expressed their commitment to continue to work intersessionally on further increasing mutual understanding, including in view of facilitating the preparation of more consolidated proposals for the basket of mid-term measures, and recalling, inter alia, the importance of the basket to deliver on the reduction targets set out in the 2023 IMO GHG Strategy, to effectively promote the energy transition of shipping and to provide the world fleet with a needed incentive while contributing to a level playing field and a just and equitable transition; and that the basket should be developed and adopted, along with the assessments of impacts on States.

7.64 As requested, relevant statements by the delegations of Argentina, Brazil, Chile, Cook Islands, Fiji, France, Jamaica, Madagascar, the Marshall Islands and Samoa are set out in annex 16.

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

Urgent matters emanating from PPR 11

Recommendations for the carriage of plastic pellets by sea in freight containers

8.1 The Committee recalled that MEPC 77 had:

.1 considered document MEPC 77/8/3 (Sri Lanka), discussing the impacts of the **MV X-Press Pearl** spill of 11,000 tonnes of plastic pellets off the shore of Colombo, Sri Lanka in May 2021, and highlighting the hazardous nature of plastic pellets and the need to establish, inter alia, international guidelines and requirements for loading, unloading, packaging, and emergency response protocols, with clear labelling of containers carrying pellets, and improved stowage instructions; and

.2 referred document MEPC 77/8/3 to PPR 9 and instructed the Sub-Committee to further consider the proposals, requesting the input of the CCC Sub-Committee as appropriate, with a view to advising the Committee on how best to proceed.

8.2 The Committee also recalled that PPR 10 had:

.1 agreed to a two-stage approach to reduce the environmental risk associated with the maritime transport of plastic pellets, which was subsequently noted by MEPC 80, as follows:

.1 firstly, the development of a circular containing recommendations for the carriage of plastic pellets by sea in freight containers, addressing in particular packaging, notification and stowage; and

.2 at a later stage, the development of amendments to appropriate mandatory instruments, subject to concrete proposals by Member States and international organizations to a future session of the Sub-Committee that would take into account discussions to date, the table prepared on "Potential instruments that could form a legal basis for mandatory provisions for the maritime transport of plastic pellets in freight containers", and which could be informed by the experience gained from the implementation of the voluntary measures; and

.2 agreed to a draft MEPC circular on Recommendations for the carriage of plastic pellets by sea in freight containers (PPR 10/18/Add.1, annex 9), and requested the input of the CCC Sub-Committee on the draft Recommendations.

8.3 In this context, the Committee considered document MEPC 81/WP.11, providing the outcome of PPR 11 with regard to the aforementioned draft MEPC circular, and noted that PPR 11:

.1 having noted the relevant recommendations of CCC 9, had agreed to a draft MEPC circular on *Recommendations for the carriage of plastic pellets by sea in freight containers* (PPR 11/WP.7, annex 1), as reproduced in the annex to document MEPC 81/WP.11; and

.2 following consultations between the Chair of the Sub-Committee and the Chair of MEPC, PPR 11 had invited MEPC 81 to consider the draft Recommendations as an urgent matter, with a view to approval.

8.4 During consideration, many delegations highlighted the importance of addressing plastic pollution in the marine environment and the negative impacts on the environment when plastic pellets were spilled into the ocean.

8.5 In this regard, many delegations supported the approval of the draft Recommendations to reduce the environmental risk of plastic pellets carried by sea in freight containers, which would fulfil the first stage of the two-stage approach (see paragraph 8.2.1). In this regard, some of these delegations supported the approval of the draft Recommendations with the plastic pellet definition agreed by PPR 11, with the understanding that the definition could be adjusted or refined in the future, based on experience gained, in accordance with the two-stage approach.

8.6 One delegation emphasized the need for the Committee and the Organization to prioritize proper identification of container cargoes, including accurate container weights, as correct notification and declaration were essential for any stowage provisions to be met. They also stressed that misdeclarations of cargoes and container weights, which in many cases were resulting in ship fires, improper stowage and collapsed stacks, were a significant problem and, if left unaddressed, would reduce the effectiveness of the recommendatory measures under consideration and any future additional measures.

8.7 Having noted the broad support for the draft MEPC circular prepared by PPR 11, the Committee approved MEPC.1/Circ.909 on *Recommendations for the carriage of plastic pellets by sea in freight containers*.

8.8 Some delegations noted that, with the approval of the Recommendations, experience could be gathered from their implementation to inform the development of future mandatory measures. In this context, some delegations stressed the need to proceed rapidly with the development of mandatory measures to further reduce the risk of plastic pellets entering the marine environment during sea transport.

8.9 In this regard, the delegation of the United Arab Emirates, supported by the delegation of Saudi Arabia, recalled that proposals to amend mandatory instruments other than MARPOL Annex V with regard to the carriage of plastic pellets had been submitted to PPR 11 and that the Sub-Committee had invited further written proposals elaborating on potential options for mandatory measures. Subsequently, the delegation requested clarification on whether the scope of work for output 4.3, as reflected in the *Action Plan on Marine Plastic Litter from Ships* (resolution MEPC.310(73)) and the *Strategy on Marine Plastic Litter from Ships* (resolution MEPC.341(77)), could accommodate such proposals or if a new output would be needed to consider them. As requested, the full text of the statement by the delegation of the United Arab Emirates is set out in annex 16.

8.10 In this context, the Committee recalled that the Action Plan would be reviewed at its next session and that this matter would be addressed at that time.

8.11 Subsequently, the delegation of Saudi Arabia, supported by the delegation of the United Arab Emirates, expressed the view that matters concerning plastic pellets primarily fell into the broader category of product life-cycle management and the circular economy and were, therefore, outside the mandate of IMO. In addition, they highlighted the ongoing work of the Intergovernmental Negotiating Committee (INC) to develop an international legally binding instrument on plastic pollution, including in the marine environment, and that discussions regarding

plastic pellets should be referred to the INC to avoid any actions being agreed at IMO that could undermine or complicate the comprehensive solutions being developed through INC. As requested, the full text of the statement by the delegation of Saudi Arabia is set out in annex 16.

Review of the Action Plan to Address Marine Plastic Litter from Ships

8.12 The Committee recalled that, as stated in operative paragraph 4 of resolution MEPC.310(73) on *Action Plan to Address Marine Plastic Litter from Ships,* it had agreed to keep the Action Plan under review, with a view to assessing the effectiveness of the actions against the intended outcomes in 2023; and that, in light of the ongoing work of the PPR Sub-Committee and taking into account the Committee's workload, MEPC 80 had agreed to defer the review of the Action Plan to this session.

8.13 Having noted that, with the exception of the urgent matter above (see paragraphs 8.1 to 8.11), the outcome of PPR 11 would be considered at MEPC 82, the Committee agreed to review the Action Plan in conjunction with the consideration of the relevant outcome of PPR 11 at its next session. Consequently, the Committee deferred documents MEPC 81/8(CSC) and MEPC 81/8/1 (FOEI and CSC) to MEPC 82, for consideration in conjunction with the review of the Action Plan.

8.14 In this context, the Committee requested the Secretariat to submit an update of the progress made with items in the Action Plan to MEPC 82.

Other matters related to marine plastic litter from ships

8.15 The Committee noted information in document MEPC 81/INF.15 (India) concerning an initiative by the Indian Administration on the control and ban of single-use plastics, in particular the positive outcome of that initiative as evidenced by an analysis of data gathered during 2023 from ships calling at Indian ports.

8.16 Subsequently, one delegation expressed the view that compliance with the initiative described in document MEPC 81/INF.15 was challenging for foreign ships operating in Indian waters and that the corresponding directive issued by the Directorate General of Shipping of India (DGS Order No.5 and addendum) should be adapted and revised to ensure its practicality for foreign ships, while maintaining the Order's commitment to reducing plastic pollution.

8.17 With regard to the ongoing work of the INC to develop an international legally binding instrument on plastic pollution, including in the marine environment, the Committee was informed that the Secretariat had attended, and planned to continue attending, all INC sessions as an observer, and would provide relevant information to the Committee, as appropriate.

9 POLLUTION PREVENTION AND RESPONSE

9.1 The Committee noted that, due to the close proximity of PPR 11 and MEPC 81, the outcome of PPR 11 would be submitted to MEPC 82 for consideration with the exception of one urgent matter, namely the request to approve the draft MEPC circular on Recommendations for the carriage of plastic pellets by sea in freight containers. In this regard, the Committee recalled that the Recommendations had been considered and approved under agenda item 8 (Follow-up work emanating from the Action Plan to Address Marine Plastic Litter from Ships) (see paragraph 8.7).

9.2 With regard to document MEPC 81/9 (Secretariat), providing legal advice on the use of exhaust gas cleaning systems (EGCS) as an alternative compliance mechanism under MARPOL Annex VI and its relationship with the legal framework established under the UN Convention on the Law of the Sea (UNCLOS), the Committee noted that the Chairs of MEPC

and the PPR Sub-Committee had agreed that the aforementioned legal advice could already be discussed at PPR 11 in conjunction with the regulatory considerations concerning ECGS discharge water and that, consequently, PPR 11 had considered the advice.

9.3 Accordingly, the Committee agreed to defer final consideration of document MEPC 81/9 to MEPC 82, to be taken into account when the relevant outcome of PPR 11 was considered.

10 REPORTS OF OTHER SUB-COMMITTEES

Outcome of III 9

10.1 The Committee approved, in general, the report of the ninth session of the Sub-Committee on Implementation of IMO Instruments (III) (III 9/19 and III 9/19/Add.1), and took action as indicated below.

GISIS PRF module – prospective data transfer mechanism

10.2 The Committee noted that III 9, having noted the information contained in document III 9/3/1 (Secretariat), providing an overview and provisional analysis of the information contained in the Port Reception Facilities Module of GISIS and information that engagement with the European Maritime Safety Agency had commenced on the data transfer mechanism outlined in document MEPC 77/14 (Austria et al.), had recommended that the Secretariat give this matter priority, with a view to reducing the administrative burden for Member States.

Casualty analysis and derived statistics

10.3 The Committee endorsed, subject to a concurrent decision by MSC 108, the issuance of III.3/Circ.10 on *Casualty Analysis and Statistics containing observations on reports of investigation into casualties*.

Lessons learned from marine casualties

10.4 The Committee also endorsed, subject to a concurrent decision by MSC 108, the issuance of III.3/Circ.11 on *Development of lessons learned by Marine Safety Investigating State*, having noted that one of the aims of the circular was to promote awareness among Member States that, when a marine safety investigation report was submitted to the Marine Casualty Investigation Module in GISIS, there was an expectation that a lesson learned should also be submitted.

Guidelines and procedures for port State control

10.5 The Committee endorsed the decision of III 9 to embark on a detailed revision of the *Guidelines for port State control (PSC) under the BWM Convention* only after the current revision of the Convention had been concluded, given the nature, number and complexity of the issues involved.

10.6 In the context of marine biosafety, the Committee also endorsed the decision of III 9 to add the *2022 Guidelines for inspection of anti-fouling systems on ships* (resolution MEPC.357(78)) as a new appendix to the *Procedures for PSC, 2023*, without alterations (see also paragraph 10.9.1).

Proposals for improvements in the analysis of consolidated audit summary reports

10.7 The Committee noted that III 9 had invited interested Member States to submit proposals to the Committees for a new output on the development of guidance addressing the implementation of recurrent references to mandatory IMO instruments by Member States, based on analysis of consolidated audit summary reports (CASRs), in accordance with the Committees' method of work (MSC-MEPC.1/Circ.5/Rev.5).

Provisions in IMO instruments containing the term "to the satisfaction of the Administration" or equivalent

10.8 Having endorsed, subject to a concurrent decision by MSC 108, the recommendation of III 9 to align the Auditor's Manual (Circular Letter No.3425) with the relevant part of the III Code Implementation Guidance concerning the phrase "to the satisfaction of the Administration", or equivalent, and to provide it as input to the Council's Joint Working Group on the Member State Audit Scheme when revising the Auditor's Manual, the Committee:

.1 noted that III 9 had developed, in the draft *Guidance in relation to the IMO Member State Audit Scheme (IMSAS) to assist in the implementation of the III Code by Member States*, guidance in relation to the provisions in the various IMO instruments containing the term "to the satisfaction of the Administration", or equivalent;

.2 approved, subject to a concurrent decision by MSC 108, the MSC-MEPC.2 circular on *Guidance in relation to the IMO Member State Audit Scheme (IMSAS) to assist in the implementation of the III Code by Member States*; and

.3 noted that the work on output 1.14 (Development of guidance in relation to IMSAS to assist in the implementation of the III Code by Member States) had been completed.

Assembly resolutions prepared by III 9

10.9 The Committee noted that, as authorized by MSC 106 and MEPC 79, III 9 had prepared draft Assembly resolutions, which had been subsequently adopted by A 33 as listed below:

.1 *Procedures for port State control, 2023* (resolution A.1185(33));

.2 *Survey Guidelines under the Harmonized System of Survey and Certification (HSSC), 2023* (resolution A.1186(33)); and

.3 *2023 Non-exhaustive list of obligations under instruments relevant to the IMO Instruments Implementation Code (III Code)* (resolution A.1187(33)).

Outcome of CCC 9

Development of technical provisions for alternative fuels – work plan

10.10 The Committee endorsed the updated work plan for the development of new alternative fuels prepared by CCC 9 (CCC 9/14, annex 1).

Urgent matters emanating from SDC 10

10.11 The Committee noted that SDC 10 had requested it to consider certain outcomes under output 1.16 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" as an urgent matter at this session.

10.12 In this connection, the Committee was informed by the Chair that, in consultation with the Chair of the SDC Sub-Committee, he had agreed to consider the relevant action requested by SDC 10 (MEPC 81/WP.10, paragraph 4) at this session as an urgent matter, in accordance with the Committees' method of work (MSC-MEPC.1/Circ.5/Rev.5, paragraph 6.9).

10.13 In this regard, having recalled that the *Revised guidelines for the reduction of underwater radiated noise from shipping to address adverse impacts on marine life* (MEPC.1/Circ.906) (Revised URN Guidelines) had been approved at MEPC 80, the Committee noted that SDC 10 had invited it, inter alia, to:

.1 note that the work of the SDC Sub-Committee on output 1.16 (see paragraph 10.11) had been completed;

.2 agree to continue the work on reducing underwater radiated noise (URN) from ships by introducing an experience-building phase (EBP) and changing the title of output 1.16 to "Experience-building phase for the reduction of underwater radiated noise (MEPC.1/Circ.906)", taking into account and endorsing the draft action plan for the reduction of underwater noise from commercial shipping (MEPC 81/WP.10, annex 1);

.3 agree to extend the target completion year of the re-titled output to 2026; and

.4 place the revised output on the agendas of MEPC 82 through to MEPC 85 to promote greater access to knowledge and research on URN and encourage wide participation in the information-sharing stage for the Revised URN Guidelines.

10.14 In the ensuing discussion, the following views, among others, were expressed:

.1 the draft action plan for the reduction of underwater noise from commercial shipping should be approved and the other urgent actions requested of the Committee by SDC 10 should also be considered and actioned as appropriate;

.2 in order to quickly make progress in designing and operating quieter ships, it was incumbent upon all delegations to immediately engage with and encourage uptake among all stakeholders of the Revised URN Guidelines;

.3 by having a three-year period during which Member States and international organizations could share information, lessons learned and best practices on the implementation of the Revised URN Guidelines, as agreed at MEPC 80, important opportunities to gain a better understanding of the effectiveness of the Guidelines and identify gaps or challenges that might still need to be addressed to ensure the reduction of URN from ships over time and, therefore, extending the target completion year for output 1.16 to 2026 was important;

.4 as one of the main barriers identified in the implementation and uptake of the 2014 Guidelines was awareness of the Guidelines themselves, a dedicated MEPC agenda item was necessary to encourage wide participation in the EBP and promote greater access to knowledge and research on URN;

.5 the draft guidance document prepared by SDC 10 (MEPC 81/WP.10, annex 2) to support Member States and international organizations in research and information gathering during the EBP was helpful;

.6 collaboration was necessary to ensure urgent implementation of important actions included in the draft action plan;

.7 measures that delivered co-benefits should be prioritized, for example measures that reduced URN and also emissions of greenhouse gases and climate pollutants or measures that reduced URN and also the risk of ship strikes; and

.8 Member States should explore and aim to establish noise limits for activities known to have a negative effect on marine soundscapes, with the limits being informed both by biological limits and by local and indigenous knowledge.

10.15 In expressing support for the work carried out by the SDC Sub-Committee that had resulted in the completion of the Revised URN Guidelines, one delegation expressed the view that the next steps identified by SDC 10 constituted a de facto new output and, therefore, should be accompanied by the justification required for proposed new outputs. The delegation suggested that the new output, if approved, should be placed in the list of post-biennial outputs until relevant experience with the implementation of the Revised URN Guidelines had been gained.

10.16 The Committee noted that the Secretary-General, in light of the proposed extension of output 1.16 and the actions proposed in the draft action plan for the reduction of underwater noise from commercial shipping, would conduct an assessment of the technical, administrative and financial implications of the work proposed, in line with rule 15 of MEPC's Rules of Procedure, so as to ensure that the Secretariat would be in a position to support the work conferred to MEPC; and that the outcome of this assessment would be submitted to MEPC 82. In light of this information, and having considered the views expressed, the Committee:

.1 endorsed, in principle, the draft action plan for the reduction of underwater noise from commercial shipping (MEPC 81/WP.10, annex 1; and SDC 10/17, annex 2), with a view to further consideration and final approval at MEPC 82;

.2 noted that SDC 10 had agreed to the draft guidance on the EBP for the Revised URN Guidelines (MEPC 81/WP.10, annex 2; and SDC 10/17, annex 3);

.3 agreed to include an agenda item on "Reduction of underwater radiated noise from commercial shipping" on the provisional agenda for MEPC 82, with a view to considering all relevant actions requested by SDC 10, including the action items in paragraph 4 of document MEPC 81/WP.10, in conjunction with the assessment by the Secretary-General referred to in the chapeau; and

.4 invited Member States and international organizations to start collecting information on lessons learned and best practices concerning the application and uptake of the Revised URN Guidelines, using the draft guidance on the EBP (see.2 above), as appropriate, with a view to submitting such information to the Committee.

11 IDENTIFICATION AND PROTECTION OF SPECIAL AREAS, ECAs AND PSSAs

Proposal to designate the Canadian Arctic waters as an ECA for nitrogen oxides, sulphur oxides and particulate matter

11.1 The Committee had for its consideration document MEPC 81/11 (Canada), proposing to designate an emission control area (ECA) in Arctic waters under Canadian sovereignty and jurisdiction for nitrogen oxides (NO_X), sulphur oxides (SO_X) and particulate matter (PM) in accordance with regulations 13 and 14 and appendix III to MARPOL Annex VI.

11.2 In this regard, the Committee noted additional information provided by the delegation of Canada that the Canadian Arctic waters were originally omitted from the North America ECA proposal in 2009 due to a lack of data and scarcity of shipping activities. However, since then, shipping activity had increased and ship traffic and emissions data had been much improved.

11.3 In the ensuing discussion, many delegations expressed support for the proposal, emphasizing the importance of the designation to protect the fragile and sensitive Arctic ecosystem from air pollution from shipping and the positive benefits for indigenous populations in the area.

11.4 One delegation stated that they did not consider that the proposal to designate the Canadian Arctic waters nor the proposal to designate the Norwegian Sea (MEPC 81/11/1) (see paragraph 11.6 below) as an ECA met the criteria for designation as both areas had low shipping densities and low coastal population numbers, therefore measures to control emissions of NO_X and SO_X could be introduced at the national level in the waters under their jurisdiction.

11.5 Following discussion, the Committee agreed to establish a Technical Group on the Designation of PSSA and Special Areas to further review the proposed designation as set out in document MEPC 81/11.

Proposal to designate the Norwegian Sea as an ECA for nitrogen oxide and sulphur oxides

11.6 The Committee had for its consideration document MEPC 81/11/1 (Norway), proposing to designate the Norwegian Sea as an ECA for NO_X and SO_X, pursuant to regulations 13 and 14 and appendix III to MARPOL Annex VI. The Committee noted that the proposal included the use of a "three dates criterion" (building contract, keel laid and delivery date) as part of the keel-laying date requirement in the draft amendments to MARPOL Annex VI for the designation of the new NO_x ECA, so that the new requirements would apply to ships delivered on or after 1 January 2030 regardless of the keel-laying date.

11.7 In this regard, the Committee also considered the following two documents:

.1 MEPC 81/11/2 (Belgium and Kingdom of the Netherlands) supporting the proposed designation of the Norwegian Sea as an ECA for NO_X and SO_X, and the way in which Norway proposed to apply the "three dates criterion" as part of the keel-laying date requirement in their proposed amendments to MARPOL Annex VI; and

.2 MEPC 81/11/3 (CSC et al.) welcoming the proposals from Canada and Norway to designate ECAs for NO_X, SO_X and PM in the Canadian Arctic waters and the Norwegian Sea, respectively.

11.8 In the ensuing discussion, many delegations supported the proposal to designate the Norwegian Sea as an ECA, highlighting that it would have a positive benefit for the environment and human health.

11.9 A number of delegations expressed support for the way in which Norway was proposing to apply the "three dates criterion" as part of the keel-laying date requirements, aiming for a more effective implementation of NO_X Tier III requirements in the proposed new ECA. However, some other delegations suggested that the "three dates criterion" should be considered carefully, in particular concerning its application, in order to avoid unintended consequences related to the implementation of other aspects of MARPOL Annex VI, such as certification requirements contained therein.

11.10 Following discussion, the Committee agreed to task the Technical Group (see paragraph 11.5) with further reviewing the proposed designation and the use of the "three dates criterion" as suggested in document MEPC 81/11/1.

Establishment of a Technical Group

11.11 The Committee established a Technical Group on the Designation of PSSA and Special Areas and instructed it, taking into account the criteria set out in section 3 of appendix III of MARPOL Annex VI and the comments and decisions made in plenary, to:

.1 further assess the proposal for designating the Arctic waters under Canadian sovereignty and jurisdiction as an ECA for the control of NO_X, SO_X and PM, as proposed in document MEPC 81/11; and

.2 further assess the proposal designating the Norwegian Sea as an ECA for NO_X and SO_X, including the "three dates criterion", as proposed in document MEPC 81/11/1.

Report of the Technical Group

11.12 Having considered the report of the Technical Group (MEPC 81/WP.6), the Committee approved it in general and took action as described below.

11.13 The Committee:

.1 noted that the Technical Group determined that the ECAs for the control of NO_x, SO_x and PM, as appropriate, proposed for the Canadian Arctic waters and Norwegian Sea satisfied the criteria set forth in section 3 of appendix III of MARPOL Annex VI;

.2 approved the proposal to designate ECAs for the control of NO_X, SO_X and PM, as appropriate, for the Canadian Arctic waters and Norwegian Sea and the proposed amendments to MARPOL Annex VI, as set out in annex 13, with a view to adoption at MEPC 82;

.3 invited submissions to a future session on consequential amendments that might be required to the "Supplement to International Air Pollution Certificate (IAPP Certificate) Record of Construction and Equipment" in appendix I of MARPOL Annex VI; and

.4 requested the Secretariat to carry out an editorial review of the proposed amendments to MARPOL Annex VI prior to submission to MEPC 82, in particular of the coordinates used to designate the boundaries of the proposed Canadian Arctic ECA, to ensure consistency with those set out in appendix VII to MARPOL Annex VI.

11.14 The observers from FOEI and ICC welcomed the approval of the new ECAs in Canadian Arctic waters and the Norwegian Sea and emphasized that they would be important in reducing threats to biodiversity, the climate and communities in the Arctic.

12 TECHNICAL COOPERATION ACTIVITIES FOR THE PROTECTION OF THE MARINE ENVIRONMENT

12.1 The Committee, having considered relevant information contained in document MEPC 81/12 (Secretariat), noted the update provided on the marine environment activities implemented under IMO's Integrated Technical Cooperation Programme (ITCP) for 2023, and expressed its appreciation to the Secretariat for the technical assistance provided through the ITCP, notably through training workshops, seminars and e-Learning courses.

12.2 The delegation of Chile expressed its appreciation for IMO's technical cooperation programme and for the ITCP activities delivered in 2023, and highlighted in particular two capacity-building activities hosted by their Government on the promotion of the 2023 IMO GHG Strategy at the regional and national levels, aimed at fostering synergies between the decarbonization of international shipping and the green energy transition, including incentivizing investments in the production of sustainable marine fuels and associated port infrastructure. In noting the challenges and opportunities that decarbonization of the shipping sector could bring, the delegation expressed its appreciation for the participation of the IMO Secretary-General at both events and invited the Secretariat to organize similar activities in Latin America in the future.

12.3 The Committee expressed its appreciation to all donors for their financial and in-kind contributions to the ITCP.

13 APPLICATION OF THE COMMITTEE'S METHOD OF WORK

Review of the Rules of Procedure of MEPC

13.1 The Committee recalled that C 129 had (C 129/D, paragraph 3.2):

.1 requested the committees to inform C 132 of the outcome of the task undertaken with regard to the review of their respective rules of procedure;

.2 also requested the Secretariat to provide information, at C 132, on the possible areas of convergence and/or divergence among the existing rules of procedures; and

.3 agreed that C 132 would instruct the Working Group on Council Reform to proceed with the review and harmonization of the rules of procedure, if necessary.

13.2 With regard to the harmonization of the rules of procedure, including the integration of rules relating to the use of hybrid meeting capabilities, the Committee agreed to inform C 132 that no comments had been made at this session on the matter and noted that any comments could be submitted directly to C 132, to be taken into account in the work of the Council Working Group (see paragraph 13.1.3).

Committees' method of work

13.3 The Committee noted that the MSC Chair had submitted document MSC 108/18 to MSC 108, containing the outcome of an assessment conducted by the Chair, in consultation with the Secretariat, on the arrangements for the planning, management and delivery of the work of MSC and its subsidiary bodies, along with related recommendations to help manage and control their workload.

13.4 In this respect, the Committee also noted that the consideration of the aforementioned recommendations by MSC might eventually result in amendments to the Committees' method of work (MSC-MEPC.1/Circ.5/Rev.5) and requested the Secretariat to keep it informed of the outcome of MSC's considerations in this regard.

13.5 The Committee further noted that references to Assembly resolutions related to the Organization's Strategic Plan and the Strategic Plan's application in the Committees' method of work would need to be updated to the latest versions, namely resolutions A.1173(33) and A.1174(33), and that this should be considered in conjunction with any potential amendments agreed by MSC 108.

14 WORK PROGRAMME OF THE COMMITTEE AND SUBSIDIARY BODIES

Outcome of C129

14.1 The Committee recalled that C 129, having considered document C 129/4(a)/3 (India), proposing a new output on "Digitization of all certifications required under all IMO conventions, as well as all commercial maritime documents in joint collaboration with the relevant international organizations and industry", had invited the committees, in particular MSC, MEPC, LEG and FAL, to consider the proposal.

14.2 In this regard, the Committee noted that FAL 48 was due to consider document FAL 48/17 (China et al.), containing a proposal for a new output to develop an overarching IMO strategy on digitalization to ensure standardization and harmonization, which was similar to the proposal of India in document C 129/4(a)/3.

14.3 In addition, the Committee recalled its decisions under agenda item 2 in relation to the proposed development of a joint MSC-FAL circular on guidelines for the use of electronic certificates (see paragraphs 2.10 and 2.11).

14.4 Having considered the matter, the Committee was of the view that the remaining aspects covered in document C 129/4(a)/3, such as digitization of commercial maritime documents and digitalization of associated processes, were matters better discussed by the FAL Committee.

14.5 Subsequently, the Committee agreed to inform the Council of the outcome of its consideration of document C 129/4(a)/3 and invited LEG, MSC and FAL to note the views of the Committee in this regard.

Biennial agendas of the CCC and III Sub-Committees and provisional agendas for their forthcoming meetings

Biennial agenda of the CCC Sub-Committee and provisional agenda for CCC 10

14.6 The Committee approved, subject to a concurrent decision by MSC 108, the biennial agenda of the CCC Sub-Committee for the 2024-2025 biennium and the provisional agenda for CCC 10 (CCC 9/14, annexes 9 and 10).

Biennial agenda of the III Sub-Committee and provisional agenda for III 10

14.7 The Committee approved, subject to a concurrent decision by MSC 108, the biennial agenda of the III Sub-Committee for the 2024-2025 biennium and the provisional agenda for III 10 (III 9/19, annexes 9 and 10).

Status of the outputs of MEPC for the 2024-2025 biennium

14.8 Having recalled that, as per usual practice and in accordance with paragraph 9.1 of the *Application of the Strategic Plan of the Organization* (resolution A.1174(33)), the status of outputs would only be produced after the session as an annex to its report to avoid any unnecessary duplication of work, the Committee invited the Council to note the status report of the outputs of MEPC for the 2024-2025 biennium, as set out in annex 14.

Items to be included in the agenda of MEPC 82

14.9 The Committee, having considered document MEPC 81/WP.3/Rev.1 (Secretariat) and taken into account the decisions made at this session, approved the items to be included in the agenda of MEPC 82, as set out in annex 15.

Dates for MEPC 82

14.10 The Committee noted that MEPC 82 had been scheduled to take place from 30 September to 4 October 2024.

Correspondence groups

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

.1 Correspondence Group on Review of the BWM Convention (see paragraph 4.17);

.2 Correspondence Group on Measurement and Verification of Non-CO_2 GHG Emissions and Onboard Carbon Capture (see paragraph 6.40); and

.3 Correspondence Group on the Further Development of the LCA Framework (see paragraph 7.58).

Groups expected to be established at MEPC 82

14.12 The Committee, taking into account the decisions made under the respective agenda items, anticipated that the following groups might be established at MEPC 82:

.1 Working Group on Air Pollution and Energy Efficiency;
.2 Working Group on Reduction of GHG Emissions from Ships;

.3 Drafting Group on Amendments to Mandatory Instruments;
.4 Ballast Water Review Group;
.5 Working Group on Marine Plastic Litter; and
.6 Technical Group on the Designation of PSSA and Special Areas,

whereby the Chair, taking into account the submissions received on the respective subjects and all other agenda items, would advise the Committee well before MEPC 82 on the final selection of a maximum of five groups, in accordance with the Committees' method of work (MSC-MEPC.1/Circ.5/Rev.5, paragraphs 5.24 and 5.25).

Intersessional meeting

14.13 The Committee approved, subject to endorsement of the Council, the holding of the seventeenth meeting of the Intersessional Working Group on Reduction of GHG Emissions from Ships (ISWG-GHG 17), from 23 to 27 September 2024 (see paragraph 7.53).

15 ANY OTHER BUSINESS

Recent inter-agency activities

15.1 The Committee noted the information contained in document MEPC 81/15 (Secretariat) on recent inter-agency activities with other UN agencies and requested the Secretariat to continue to update it with any significant inter-agency cooperation relating to its work.

Implementation of the Hong Kong Convention

Communication of information

15.2 The Committee considered document MEPC 81/15/1 (Secretariat), proposing draft reporting formats under article 12 of the Hong Kong Convention and the development of a new GISIS module on ship recycling, for Parties to the Convention to fulfil their obligation of communication of information required by the Convention.

15.3 In this connection, several delegations welcomed the forthcoming entry into force of the Hong Kong Convention on 26 June 2025 and commended the endeavours of all the stakeholders over the years to enhance safe and environmentally sound recycling of ships.

15.4 The Committee noted general support for the action requested of it in paragraph 12 of document MEPC 81/15/1, including the approval of the proposed reporting formats under article 12 of the Hong Kong Convention and the development of a new GISIS module on ship recycling for the Parties to fulfil their obligations specified in the article.

15.5 The Committee also noted the following suggestions for potential improvements to the envisaged GISIS module:

.1 inserting a clear indicator of which measurement should be used for "lightweight" in part 1 of the reporting format and inserting "LDT/LWT" next to "GT" under parts 4 and 5; and

.2 the implementation of automated validation checks to ensure submitted data meet quality, consistency and accuracy standards; design of the module for real-time updates and notifications to enhance communication; introduction of a feedback mechanism; development of an interactive dashboard for ship recycling status overview; assurance of ease of navigation and data entry for Parties; and public access to aggregated non-sensitive data for transparency.

15.6 Subsequently, the Committee approved the formats for the mandatory reporting under article 12 of the Hong Kong Convention, and requested the Secretariat to disseminate them by means of MEPC.1/Circ.910. In addition, the Committee agreed to keep the reporting formats under review, with a view to their being updated as necessary, in the light of experience gained with their use.

15.7 In order to facilitate reporting, the Committee requested the Secretariat to develop a new GISIS module on ship recycling for the Parties to the Hong Kong Convention to fulfil their obligations regarding the communication of information specified in article 12 of the Convention.

15.8 Pending the finalization of the aforementioned GISIS ship recycling module, the Committee:

.1 invited the Parties to the Hong Kong Convention to submit to the Organization, by email (med@imo.org), the information on ship recycling facilities and the two annual lists of ships required to be reported in accordance with sub-paragraphs 1, 4 and 5 of article 12 of the Convention, until the GISIS ship recycling module had been finalized;

.2 requested the Secretariat to submit to MEPC annually, starting in 2026, information reported to the Organization by Parties to the Convention; and

.3 authorized the Secretariat to publish the information on ship recycling facilities and the lists of ships, as submitted by Parties to the Convention, as a downloadable pdf file on the IMO website, for the purpose of dissemination.

Interplay between the Hong Kong and Basel Conventions

15.9 The Committee had for its consideration document MEPC 81/15/5 (Bangladesh et al.) and the potential legal issues identified therein concerning the interplay between the Hong Kong Convention and the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal (Basel Convention).

15.10 In the ensuing discussion, the following views, among others, were expressed:

.1 the proposal contained in document MEPC 81/15/5 was supported and the Committee should request the IMO Secretariat to continue and strengthen its cooperation with the Secretariat of the Basel Convention to ensure clear and robust implementation of both Conventions;

.2 legal clarity and certainty were needed to ensure that compliance with the Hong Kong Convention did not inadvertently result in sanctions under the Basel Convention; therefore, it was imperative to address the potential legal inconsistencies between these two UN conventions, and collaborative efforts were important in this regard;

.3 the scenarios detailed in document MEPC 81/15/5 illustrated the practical and legal challenges that shipowners and recycling facilities might face, potentially hindering the uniform and effective implementation of the Hong Kong Convention;

.4 achieving harmonization between the two conventions was paramount for fostering a regulatory environment conducive to the safe and environmentally sound recycling of ships on a global scale;

.5 facilitating ship replacement was crucial for fostering a healthy shipping market, ensuring a level playing field and advancing the decarbonization of shipping;

.6 IMO had initiated its work on the development of the Hong Kong Convention due to the challenges of applying the Basel Convention to ships; therefore, ships flying the flag of a State that was a Party to the Hong Kong Convention should no longer fall under the provisions of the Basel Convention while on their way to their final recycling destination;

.7 the Hong Kong Convention had been embraced widely by shipowners, ship recycling facilities and ship recycling States and some of them were already in compliance with the requirements of the Convention, prior to its forthcoming entry into force in June 2025;

.8 Member States should ensure that Government officials attending the Conference of the Parties (COP) to the Basel Convention were aware that the Hong Kong Convention would enter into force in June 2025 and also of the outcome of this session of the Committee;

.9 the Secretariat could be requested to prepare a legal view on the relationship between the Hong Kong and Basel Conventions regarding ship recycling, for consideration by MEPC 82; and

.10 the Secretariat could be requested to develop draft guidance on the interplay between the Hong Kong and Basel Conventions in relation to ship recycling, similar to the *Guidance manual on how to improve the sea-land interface to ensure that wastes falling within the scope of MARPOL, once offloaded from a ship, are managed in an environmentally sound manner,* adopted by COP-13 to the Basel Convention.

15.11 The observer from ITF made a statement in this regard, the full text of which is set out in annex 16.

15.12 In considering how this matter could be brought to the attention of the COP to the Basel Convention, the Committee noted the following information provided by the representative of the Basel Convention Secretariat:

.1 there was currently no agenda item on ship recycling under the COP to the Basel Convention and the issue would therefore be raised under the agenda item on international cooperation and coordination;

.2 the Basel Convention and IMO Secretariats could report back to the COP to the Basel Convention on the outcome of this and successive MEPCs, including on the entry into force of the Hong Kong Convention;

.3 an invitation from MEPC to the COP to the Basel Convention could invite Parties to the Basel Convention to consider possible further action, as appropriate; and

.4 Parties to the Basel Convention could submit conference room papers on issues of interest during its COP.

15.13 Having noted the views and observations in document MEPC 81/15/5, as well as the comments made in plenary, the Committee:

.1 requested the Secretariat to continue and strengthen the cooperation with the Secretariat of the Basel Convention to cater for any information and assistance needed to ensure clear and robust implementation of the Hong Kong Convention;

.2 requested the Secretariat to report the outcome of MEPC 81 to the COP to the Basel Convention, with a view to the COP considering further action in this regard, as appropriate;

.3 invited interested Member States to bring the issue to the attention of relevant meetings under the Basel Convention and to submit further proposals on the interplay between the Hong Kong and Basel Conventions regarding ship recycling to MEPC 82; and

.4 requested the Secretariat to develop draft guidance on this matter, in consultation with the Basel Convention Secretariat, for consideration at MEPC 82.

15.14 Furthermore, the Committee invited the Secretary-General to inform the Executive Secretary of the Basel, Rotterdam and Stockholm Conventions of the forthcoming entry into force of the Hong Kong Convention and convey the Committee's request for the COP to the Basel Convention to further consider the interplay between the two Conventions and what further action may be required in this regard.

Regional Specialized Meteorological Centres for marine emergency response

15.15 The Committee had for its consideration document MEPC 81/15/2 (WMO), proposing the expansion of the meteorological support for marine environmental pollution response through the establishment of WMO Regional Specialized Meteorological Centres for marine emergency response (RSMCs-MER).

15.16 In the ensuing discussion, the Committee noted general support for further consideration of the WMO proposals. Particular views expressed included the need to take into account regional resources and characteristics; the need to include other IMO bodies, as well as IMSO and the IOPC Funds; and previous positive experiences regarding regional collaborations with WMO.

15.17 One delegation expressed the view that careful consideration was required with regard to, inter alia, potential overlap with the responsibilities of coastal States regarding environmental protection in waters under their jurisdiction; the lack of a legal framework for environmental emergencies (in contrast to the SAR coordination framework under SOLAS); and the meaning of the term marine emergency, noting that further information on the background of the consideration of the proposal (MEPC 81/15/2) by WMO Members would be useful and seeking clarification regarding the process for designating RSMCs within WMO.

15.18 In this connection, the representative of the WMO Secretariat provided some clarifications, including that the proposals were brought to the Committee to, inter alia, seek feedback to further develop criteria to support emergency operations, and recalled that the RSMC designation criteria in relation to search and rescue activities had been submitted to the thirtieth meeting of the ICAO/IMO Joint Working Group on Harmonization of Aeronautical and Maritime Search and Rescue in November 2023.

15.19 Having noted the information provided by the representative of the WMO Secretariat, and following consideration, the Committee:

.1 thanked WMO for providing information concerning the envisaged establishment of WMO RSMCs for marine emergency response (RSMCs-MER);

.2 encouraged national marine emergency response authorities to engage with national meteorological and hydrological services and RSMCs-MER, once designated, to support MARPOL-related exercises; and

.3 invited interested parties and pollution response experts to work with WMO through national administrations/offices to further develop the proposed amendments to the *Manual on the Global Data-processing and Forecasting System* (WMO-No. 485) (MEPC 81/15/2, annex).

Proposal to develop a database of local/regional discharge regulations

15.20 The Committee had for its consideration document MEPC 81/15/3 (India), inviting it to consider the development of a database of local/regional discharge regulations, in particular regulations relating to sewage and grey water, within the public area of the Port Reception Facilities module of GISIS, to facilitate the usage and reporting under the module. Following consideration, the Committee referred the document to PPR 12 for further consideration under its agenda item "Revision of MARPOL Annex IV and associated guidelines".

Clarification regarding carriage of cargo oil in the slop tank(s) of a tanker

15.21 The Committee also referred document MEPC 81/15/4 (India), seeking clarification regarding the carriage of cargo oil in the slop tank(s) of an oil tanker, to PPR 12, for further consideration, with a view to providing advice on how to proceed.

Digital initiatives for sustainability and protection of the marine environment

15.22 The Committee noted the information in document MEPC 81/INF.14 (India) regarding various digital initiatives taken by India through the development of a dedicated online portal to enhance implementation of environmental regulations in the maritime sector.

Information regarding in-water cleaning with capture

15.23 Having noted the information in document MEPC 81/INF.35 (Kingdom of the Netherlands), concerning the guiding principle and best practice used in the Kingdom of the Netherlands related to in-water cleaning devices, the Committee referred the document to the Correspondence Group on In-Water Cleaning, established by PPR 11, for information.

IMO Regional Presence Office in Abidjan, Côte D'Ivoire

15.24 Having recalled that 20 March 2024 marked the UN French Language Day, the delegation of Togo expressed the view that the French language was not just a tool for communication as it also represented a wider community; underscored the importance of an operational IMO Regional Presence Office in Francophone West Africa; and requested the Secretariat to ensure that the Abidjan Office be fully resourced. The delegation of Côte d'Ivoire echoed the sentiments expressed by the delegation of Togo and stated that implementation of IMO instruments in the region would be better facilitated if the IMO Regional Presence Office in Abidjan were fully operational.

Expressions of condolence

15.25 The Committee, having noted with great sadness the recent passing of Mr. Selwyn Bailey of South Africa, whose work had been instrumental for the development and promotion of the 2012 Cape Town Agreement, expressed its appreciation for Mr. Bailey's immense contribution to the work of the Organization and its sincere sympathy to the delegation of South Africa and Mr. Bailey's family and colleagues.

15.26 The Committee, having been informed of the capsizing of the Republic of Korea-flagged chemical tanker **Keoyoung Sun** off the coast of Japan, which had eight crew members from Indonesia, two from the Republic of Korea and one from China on board, noted with sadness that eight crew members had lost their lives in the incident and one remained missing. The Secretary-General, on behalf of the Organization and the Committee, conveyed sincere condolences to the families of the victims, as well as to the delegations of China, Indonesia and the Republic of Korea. The Committee also expressed its appreciation for the rescue and recovery efforts made by the Japan Coast Guard in its response to the incident.

International Day for the Elimination of Racial Discrimination

15.27 The Secretary-General addressed the Committee regarding the annual observance of the International Day for Elimination of Racial Discrimination on 21 March 2024, stressing the importance of embracing diversity and fostering inclusivity within IMO, and highlighting the Secretariat's work to mainstream diversity, equality, equity and inclusion throughout the Secretariat.

16 CONSIDERATION OF THE REPORT OF THE COMMITTEE ON ITS EIGHTY-FIRST SESSION

16.1 The draft report of the session (MEPC 81/WP.1) was prepared by the Secretariat for consideration by the Committee. During the meeting held on 22 March 2024, delegations were given an opportunity to provide comments on the draft report, and the Secretariat then prepared the revised draft report (MEPC 81/WP.1/Rev.1), incorporating editorial corrections and modifications based on the comments made. Member States and international organizations wishing to provide further editorial corrections and improvements, including finalizing individual statements, were given a deadline of 23.59 (UTC+1) on 5 April 2024, to do so by correspondence, in accordance with the Committees' method of work (MSC-MEPC.1/Circ.5/Rev.5, paragraphs 4.37 and 4.38).

16.2 No comments were received by the above-mentioned deadline and 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 5 April 2024, pursuant to rule 35 of the Rules of Procedure.

Action requested of other IMO organs

16.3 The Council, at its 132nd session, is invited to:

.1 consider the report of the eighty-first session of MEPC and, in accordance with Article 21(b) of the IMO Convention, transmit it, with any comments and recommendations, to the thirty-fourth session of the Assembly;

.2 note that the Committee invited the Secretary-General to continue his initiatives in relation to the ongoing threats to commercial shipping in the Red Sea and the Gulf of Aden, in particular his communication with all relevant parties and his emphasis on the well-being of seafarers (paragraphs 1.6 to 1.18);

.3 note the Committee's consideration of document MEPC 81/2/5, proposing the inclusion of an additional operative paragraph in resolution A.1192(33) on *Urging Member States and all relevant stakeholders to promote actions to prevent illegal operations in the maritime sector by the "dark fleet" or "shadow fleet"*, concerning preventing inadvertent criminalization of seafarers (paragraphs 2.14 to 2.19);

.4 note that the Committee instructed the III Sub-Committee to consider the consolidated audit summary reports (CASRs) containing lessons learned from seven mandatory audits completed in 2021 and 2022 (Circular Letter No.4771) and report to the Committees on the outcome of its consideration, subject to a concurrent decision by MSC 108 (paragraph 2.21);

.5 note that the Committee adopted amendments to the Ballast Water Management Convention concerning the use of electronic record books; amendments to article V of Protocol I of MARPOL concerning revised reporting procedures for the loss of containers; and amendments to MARPOL Annex VI concerning low-flashpoint fuels and other fuel oil-related issues, marine diesel engine replacing steam system, accessibility of data and inclusion of data on transport work and enhanced granularity in the IMO DCS (section 3 and annexes 1 to 4);

.6 note the action taken by the Committee on issues related to ballast water management, in particular the endorsement of the list of provisions and instruments for revision and/or development under the Convention review stage of the experience-building phase (EBP); the adoption of *Interim guidance on the application of the BMW Convention to ships operating in challenging water quality conditions*; and the approval of *Guidance for the temporary storage of treated sewage and/or grey water in ballast water thanks* (section 4 and annex 5);

.7 note the action taken by the Committee on issues related to air pollution prevention, in particular the approval of the draft MSC-MEPC circular on *Guidelines for the sampling of fuel oil for determination of compliance with MARPOL Annex VI and SOLAS chapter II-2*, subject to concurrent approval by MSC 108 (section 5);

.8 note the action taken by the Committee on issues related to the energy efficiency of ships, in particular the adoption of *Amendments to the 2022 Guidelines for the development of a Ship Energy Efficiency Management Plan (SEEMP)*, *the 2022 Guidelines for Administration verification of ship fuel oil consumption data and operational carbon intensity* and *the 2021 Guidelines on the shaft/engine power limitation system to comply with the EEXI requirements and use of a power reserve*; the approval of a unified interpretation of regulations 2.2.15 and 2.2.18 of MARPOL Annex VI; and the approval of MEPC.1/Circ.908 on *Format for reporting to the Organization of uses of a power reserve* (section 6 and annexes 6 to 9);

.9 note the action taken by the Committee on issues related to the reduction of GHG emissions from ships, in particular the update on the operation of the IMO GHG TC Trust Fund and Voluntary Multi-Donor Trust Fund; the progress made on the comprehensive impact assessment of the basket of candidate mid-term GHG reduction measures; agreement on the Illustration of a draft possible outline of the "IMO net-zero framework"; the adoption

of *2024 Guidelines on life cycle GHG intensity of marine fuels;* and the agreement, in principle, with the establishment of a GESAMP Working Group on Life Cycle GHG Intensity of Marine Fuels (section 7, annexes 10 to 12);

.10 note the action taken by the Committee on issues related to follow-up work emanating from the Action Plan to Address Marine Plastic Litter from Ships, in particular the approval of MEPC.1/Circ.909 on *Recommendations for the carriage of plastic pellets by sea in freight containers* (section 8);

.11 note the action taken by the Committee on matters related to pollution prevention and response (section 9);

.12 note the Committee's consideration of the outcomes of III 9, CCC 9 and SDC 10, in particular, the endorsement, in principle, of the draft action plan for the reduction of underwater noise from commercial shipping; and the inclusion of an agenda item on "Reduction of underwater radiated noise from commercial shipping" on the provisional agenda for MEPC 82, with a view to considering all relevant actions requested by SDC 10 (section 10);

.13 note that the Committee approved draft amendments to MARPOL Annex VI related to the designation of ECAs for the control of NO_X, SO_X and PM, as appropriate, for the Canadian Arctic waters and Norwegian Sea (section 11 and annex 13);

.14 note the action taken by the Committee regarding technical cooperation activities for the protection of the marine environment (section 12);

.15 note that no comments were made in the Committee's review of respective rules of procedure of the committees, as well as possible areas of convergence and/or divergence among the existing rules of procedures (section 13);

.16 note that, following consideration of document C 129/4(a)/3, proposing a new output on "Digitization of all certifications required under all IMO conventions, as well as all commercial maritime documents in joint collaboration with the relevant international organizations and industry", the Committee agreed that the proposal could be better discussed by the FAL Committee (paragraphs 14.1 to 14.5);

.17 note that the Committee approved the biennial agendas for the CCC and III Sub-Committees for the 2024-2025 biennium and the provisional agendas for CCC 10 and III 10 (paragraphs 14.6 and 14.7);

.18 note the status report of the outputs of MEPC for the 2024-2025 biennium (paragraph 14.8);

.19 note that the Committee approved the items to be included in the provisional agenda of MEPC 82 (paragraph 14.9);

.20 endorse the holding of the seventeenth meeting of the Intersessional Working Group on Reduction of GHG Emissions from Ships (ISWG-GHG 17) (paragraph 14.13);

.21 note that the Committee approved MEPC.1/Circ.910 *on the Formats for the mandatory reporting under article 12 of the Hong Kong Convention* (paragraph 15.6); and

.22 note the Committee's action taken following its consideration of potential legal issues arising from the interplay between the Hong Kong Convention and the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal (paragraphs 15.13 and 15.14).

16.4 The Maritime Safety Committee, at its 108th session, is invited to:

.1 note that the Committee invited the Secretary-General to continue his initiatives in relation to the ongoing threats to commercial shipping in the Red Sea and the Gulf of Aden, in particular his communication with all relevant parties and his emphasis on the well-being of seafarers (paragraphs 1.6 to 1.18);

.2 note that the Committee agreed that the mutual understanding endorsed by MSC 107 concerning flashpoint documentation was consistent with appendix V of MARPOL Annex VI regarding information to be included in the bunker delivery note, and that no further action was necessary (paragraphs 2.4 to 2.6);

.3 note the Committee's discussion on the development of a joint FAL-LEG--MEPC-MSC circular on guidelines for the use of electronic certificates (paragraphs 2.7 to 2.12);

.4 consider document MEPC 81/2/5 (India), proposing the inclusion of an additional operative paragraph in resolution A.1192(33), concerning preventing inadvertent criminalization of seafarers, and take action as appropriate, taking into account the discussion and views expressed at MEPC 81 (paragraphs 2.14 to 2.19);

.5 note that the Committee, subject to a concurrent decision by MSC 108, instructed the III Sub-Committee to consider the consolidated audit summary reports (CASRs) of the audits completed in 2021 and 2022 and report to the Committees on the outcome of its consideration (paragraph 2.21);

.6 note that the Committee adopted amendments to article V of Protocol I of MARPOL concerning revised reporting procedures for the loss of containers (paragraph 3.31 and annex 2);

.7 note that the Committee adopted amendments to MARPOL Annex VI concerning, inter alia, low-flashpoint fuels and other fuel oil-related issues (paragraph 3.33 and annex 3);

.8 note the Committee's consideration regarding the need for an alternative mechanism for the assessment of capacity-building and technical cooperation and assistance implications resulting from the adoption of amendments to mandatory instruments (paragraph 3.37);

.9 concurrently approve the draft MSC-MEPC circular on *Guidelines for the sampling of fuel oil for determination of compliance with MARPOL Annex VI and SOLAS chapter II-2*, set out in annex 1 to document MEPC 81/WP.7, noting that the Committee agreed further modifications to the text approved by MSC 107 (paragraph 5.19);

.10 note that the Committee, following its consideration of document MEPC 81/6/3 regarding experience of maritime pilots and industry with overridable shaft or engine power limitation systems on ships, adopted resolution MEPC.390(81) on *Amendments to the 2021 Guidelines on the shaft/engine power limitation system to comply with the EEXI requirements and use of a power reserve* and approved MEPC.1/Circ.908 on *Format for reporting to the Organization uses of a power reserve* (paragraphs 6.35 and 6.36 and annex 8);

.11 concurrently endorse the issuance of III.3/Circ.10 on *Casualty Analysis and Statistics containing observations on reports of investigation into casualties* (paragraph 10.3);

.12 concurrently endorse the issuance of III.3/Circ.11 on *Development of lessons learned by Marine Safety Investigating State* (paragraph 10.4);

.13 concurrently endorse the recommendation of III 9 to align the Auditor's Manual (Circular Letter No.3425) with the relevant part of the III Code Implementation Guidance concerning the phrase "to the satisfaction of the Administration" or equivalent, and to provide it as input to the Council's Joint Working Group on the Member State Audit Scheme when revising the Auditor's Manual (paragraph 10.8);

.14 concurrently approve the MSC-MEPC.2 circular on *Guidance in relation to the IMO Member State Audit Scheme (IMSAS) to assist in the implementation of the III Code by Member States* (paragraph 10.8);

.15 note that the Committee endorsed the updated work plan for the development of new alternative fuels prepared by CCC 9 (paragraph 10.10);

.16 note that the Committee, following its consideration of urgent matters emanating from SDC 10, endorsed, in principle, the draft action plan for the reduction of underwater noise from commercial shipping, with a view to further consideration and final approval at MEPC 82, and agreed to include an agenda item on "Reduction of underwater radiated noise from commercial shipping" in the provisional agenda for MEPC 82 (paragraphs 10.11 to 10.16);

.17 note the Committee's consideration on the future revision of the Committees' method of work (paragraphs 13.3 to 13.5);

.18 note that, following consideration of document C 129/4(a)/3, proposing a new output on "Digitization of all certifications required under all IMO conventions, as well as all commercial maritime documents in joint collaboration with the relevant international organizations and industry", the Committee agreed that the proposal could be better discussed by the FAL Committee (paragraphs 14.1 to 14.5);

.19 concurrently approve the biennial agenda of the CCC Sub-Committee for the 2024-2025 biennium and the provisional agenda for CCC 10 (paragraph 14.6);

.20 concurrently approve the biennial agenda of the III Sub-Committee for the 2024-2025 biennium and the provisional agenda for III 10 (paragraph 14.7); and

.21 note the Committee's consideration of a proposal by WMO (MEPC 81/15/2) concerning expansion of the meteorological support for marine environmental pollution response through the establishment of WMO Regional Specialized Meteorological Centres for marine emergency response (RSMCs-MER) (paragraphs15.15 to 15.19).

16.5 The Legal Committee, at its 111th session, is invited to:

.1 note that the Committee invited the Secretary-General to continue his initiatives in relation to the ongoing threats to commercial shipping in the Red Sea and the Gulf of Aden, in particular his communication with all relevant parties and his emphasis on the well-being of seafarers (paragraphs 1.6 to 1.18);

.2 note the Committee's discussion on the development of a joint FAL-LEG--EPC-MSC circular on guidelines for the use of electronic certificates (paragraphs 2.7 to 2.12);

.3 consider document MEPC 81/2/5 (India), proposing the inclusion of an additional operative paragraph in resolution A.1192(33), concerning preventing inadvertent criminalization of seafarers, and take action as appropriate, taking into account the discussion and views expressed at MEPC 81 (paragraphs 2.14 to 2.19); and

.4 note that, following consideration of document C 129/4(a)/3, proposing a new output on "Digitization of all certifications required under all IMO conventions, as well as all commercial maritime documents in joint collaboration with the relevant international organizations and industry", the Committee agreed that the proposal could be better discussed by the FAL Committee (paragraphs 14.1 to 14.5).

16.6. The Technical Cooperation Committee, at its seventy-fourth session, is invited to:

.1 note the Committee's assessment of implications of the adopted amendments to mandatory instruments for capacity-building and technical cooperation and assistance (paragraph 3.36);

.2 note the progress made on the comprehensive impact assessment (CIA) of the basket of candidate mid-term GHG reduction measures, including the holding of a two-day Fifth GHG Expert Workshop on the further development of the basket of mid-term measures (GHG-EW 5) to facilitate the understanding of the preliminary findings of the CIA (paragraphs 7.8 to 7.14 and 7.54);

.3 note the updates on the operation of the IMO GHG TC Trust Fund and Voluntary Multi-Donor Trust Fund (paragraphs 7.34 to 7.38);

.4 note the Committee's consideration of document MEPC 81/7/5 providing an update and information on follow-up work in response to resolution MEPC.229(65) and MEPC.1/Circ.861 concerning the promotion of technical cooperation and transfer of technology relating to the improvement of energy efficiency of ships (paragraph 7.39 and 7.40); and

.5 note the outcome of the Committee regarding technical cooperation activities for the protection of the marine environment (section 12).

16.7 The Facilitation Committee, at is forty-eighth session, is invited to:

.1 note the Committee's discussion on the development of joint FAL-LEG-MEPC-MSC circular on guidelines for the use of electronic certificates (paragraphs 2.7 to 2.12); and

.2 consider the proposal contained in document C 129/4(a)/3 for a new output on "Digitization of all certifications required under all IMO conventions, as well as all commercial maritime documents in joint collaboration with the relevant international organizations and industry", taking into account the Committee's discussion of the matter (paragraphs 14.1 to 14.5).

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(The annexes to this report have been issued as document MEPC 81/16/Add.1.)