

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

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1 INTRODUCTION – ADOPTION OF THE AGENDA

1.1 The seventy-third session of the Marine Environment Protection Committee was held at IMO Headquarters from 22 to 26 October 2018, chaired by Mr. H. Saito (Japan). The Vice-Chair of the Committee, Mr. H. Conway (Liberia), was also present.

1.2 The session was attended by delegations from Members and Associate Members; representatives from 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 73/INF.1.

1.3 The session was also attended by the Chair of the Council, Mr. X. Zhang (China), the Chair of the Facilitation Committee, Mr. Y. Melenas (Russian Federation), and the Chair of the Governing Bodies of the London Convention and Protocol, Mrs. A. Prempeh (Ghana).

Opening address of the Secretary-General

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

<http://www.imo.org/MediaCentre/SecretaryGeneral/Secretary-GeneralsSpeechesToMeetings>

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

Message by the United Nations Secretary-General's Special Envoy

1.6 The Committee noted with appreciation the video message by Ambassador Mr. Peter Thomson, United Nations Secretary-General's Special Envoy for the Ocean, commending the important role that the Organization had undertaken in the implementation of the 2030 Agenda for Sustainable Development, in particular, the adoption of the *Initial IMO Strategy on reduction of GHG emissions from ships*.

Adoption of the agenda

1.7 The Committee adopted the agenda for the session (MEPC 73/1) and, having noted the annotations thereto (MEPC 73/1/1), agreed to be guided by the provisional timetable (MEPC 73/1/1, annex 2, as revised), on the understanding that the timetable was subject to adjustments depending on the progress made each day.

Credentials

1.8 The Committee noted that the credentials of 95 delegations attending the session were in due and proper order.

2 DECISIONS OF OTHER BODIES

2.1 The Committee, having noted the decisions of LEG 105 (MEPC 73/2), MSC 99 (MEPC 73/2/1), FAL 42 (MEPC 73/2/2), TC 68 (MEPC 73/2/3) and C 120 (MEPC 73/2/4) with regard to its work, agreed to take action as appropriate under the relevant agenda items and as indicated below.

Outcome of MSC 99

2.2 The Committee considered the request by MSC 99 to contribute, as appropriate, to the regulatory scoping exercise on maritime autonomous surface ships (MASS) by undertaking a review of the instruments under the purview of MEPC.

2.3 Following discussion and taking into account the current heavy workload, the Committee agreed to consider the issue in the future when significant progress had been made by MSC on the regulatory scoping exercise, so that the Committee could follow the process for such exercise.

2.4 The Committee endorsed the amendments, as approved by MSC 99, to the *List of Certificates and documents required to be carried on board ships, 2017* (FAL.2/Circ.131 MEPC.1/Circ.873-MSA.1/Circ.1586-LEG.2/Circ.3), and noted that circular FAL.2/Circ.131/Corr.1-MSA.1/Circ.873/Corr.1-MSA.1/Circ.1586/Corr.1-LEG.2/Circ.3/Corr.1 had been issued to this effect.

Outcome of TC 68

2.5 The Committee considered, in particular, the request by TC 68 for MEPC and MSC to identify and prioritize model courses that could be considered for conversion into e-Learning courses, and to consider reviewing the *Revised guidelines for the development, review and validation of model courses* (MSC-MEPC.2/Circ.15), if appropriate.

2.6 Following consideration, the Committee instructed the HTW Sub-Committee to consider the request from TC 68 and advise the Committee accordingly, subject to concurrent decision by MSC 100.

Outcome of C 120

2.7 The Committee noted, in particular, that C 120 had endorsed the holding of two intersessional meetings:

- .1 the twenty-fifth session of the PPR Working Group on the Evaluation of Safety and Pollution Hazards of Chemicals (ESPH 25), to take place in 2019; and
- .2 the fourth session of the Intersessional Working Group on Reduction of GHG Emissions from Ships (ISWG-GHG 4), which took place from 15 October to 19 October 2018.

2.8 The Committee noted that C 120's decisions on various measures to allow the public greater access to information at IMO would be further considered under agenda item 15 (see paragraph 15.29).

Application for consultative status

2.9 The Committee considered the application from the Conservation International Foundation (CI) for consultative status in IMO, referred to it by C 120 for further screening.

2.10 The Committee established an informal group meeting outside normal working hours to further screen the application of CI, in accordance with the *Rules governing relationship with non-governmental international organizations*, and report back to plenary.

2.11 In considering the report of the informal group (MEPC 73/WP.11), the Committee noted the Group's view that the interests CI aimed to represent had been already represented by other organizations in consultative status with the Organization and that it was not clear what the specific and unique contribution by the applicant would be to the work of the Organization. Consequently, the Committee concurred with the Group's view that CI was not deemed to satisfy rules 2(a) and 3(c) of the *Rules governing relationship with non-governmental international organizations* and the relevant *Guidelines on the grant of consultative status* and agreed to recommend to the Council that consultative status not be granted to CI.

3 CONSIDERATION AND ADOPTION OF AMENDMENTS TO MANDATORY INSTRUMENTS

Amendments to mandatory instruments

3.1 The Committee was invited to consider and adopt proposed amendments to MARPOL Annex VI concerning the prohibition on the carriage of non-compliant fuel oil for combustion purposes for propulsion or operation on board a ship.

3.2 The Committee noted that the text of the aforementioned amendments to MARPOL Annex VI had been circulated, in accordance with article 16(2)(a) of MARPOL, to all IMO Members and Parties to MARPOL by Circular Letter No.3837 of 16 April 2018.

Draft amendments to MARPOL Annex VI

3.3 The Committee recalled that MEPC 72 had considered and approved draft amendments to MARPOL Annex VI concerning the prohibition of the carriage of non-compliant fuel oil for combustion purposes for propulsion or operation on board a ship.

3.4 The Committee had for its consideration three documents commenting on the draft amendments: MEPC 73/3/1 (IMarEST), MEPC 73/3/2 (CLIA) and MEPC 73/3/3 (Bangladesh).

3.5 The Committee, having considered document MEPC 73/3/1 (IMarEST) proposing editorial amendments to regulation 14.3 of MARPOL Annex VI in order to avoid re-numbering the regulation each time a new emission control area was added, concurred with the proposals and referred the document to the Drafting Group on Amendments to Mandatory Instruments for inclusion in the amendments to MARPOL Annex VI.

3.6 The Committee considered document MEPC 73/3/2 (CLIA) proposing to include a clear link to the provisions set out in regulations 3 and 4 of MARPOL Annex VI in the draft amendments to regulation 14 of MARPOL Annex VI to ensure clarity and unambiguity in the application of the prohibition of the carriage of non-compliant fuel oil.

3.7 Whereas some Member States expressed support for the proposals, the majority of those who took the floor did not concur, stressing that MEPC 72 had clarified that the carriage ban on non-compliant fuel was not applicable when an alternative arrangement approved under regulation 4.1 of MARPOL Annex VI was in use on board a ship. As a consequence, the Committee agreed that the document would not be referred to the Drafting Group.

3.8 With a view to promoting consistent enforcement of regulation 14 of MARPOL Annex VI with regard to ships using alternative arrangements, the Committee agreed to instruct PPR 6 to clarify this matter as part of its ongoing work in updating the *2009 Guidelines for port State control under the revised MARPOL Annex VI* (resolution MEPC.181(59)).

3.9 The Committee considered document MEPC 73/3/3 (Bangladesh), which proposed deferring adoption of the amendments to regulation 14 of MARPOL Annex VI to a future date, citing concerns regarding the economic availability and adequate supply of compliant low sulphur fuel oil.

3.10 A number of delegations supported the proposal to defer the adoption of the amendments to a later date, also referring to potential safety implications in addition to costs and availability concerns. The Committee noted, however, that the majority of delegations that spoke did not support the proposal contained in document MEPC 73/3/3 and agreed that the document could not be referred to the Drafting Group.

3.11 As requested, the statements made by the delegations of Ecuador, India, Malaysia, the Russian Federation and Saudi Arabia are set out in annex 18.

3.12 Having concluded its discussions and having agreed on the aforementioned further modifications to the draft amendments set out in MEPC 73/3, subject to editorial improvements, if any, the Committee concurred that the entry-into-force date of the amendments to regulation 14 of MARPOL Annex VI would be 1 March 2020.

Establishment of a drafting group

3.13 The Committee established the Drafting Group on Amendments to Mandatory Instruments and instructed it, taking into account comments, proposals and decisions made in plenary, to prepare the final text of the draft amendments to MARPOL Annex VI, together with the requisite MEPC resolution for their adoption.

Report of the Drafting Group

3.14 Having considered the report of the Drafting Group (MEPC 73/WP.6), the Committee approved it in general and took action as indicated below.

3.15 The Committee considered the final text of the draft amendments to MARPOL Annex VI concerning the prohibition on the carriage of non-compliant fuel oil for combustion purposes for propulsion or operation on board a ship (MEPC 73/WP.6, annex), and adopted the amendments by resolution MEPC.305 (73), as set out in annex 1.

3.16 In adopting resolution MEPC.305(73), the Committee determined, in accordance with article 16(2)(f)(iii) of MARPOL, that the adopted amendments to MARPOL Annex VI shall be deemed to have been accepted on 1 September 2019 (unless, prior to that date, objections were communicated to the Secretary-General of the Organization, as provided for in article 16(2)(f)(iii) of the Convention) and shall enter into force on 1 March 2020, in accordance with article 16(2)(g)(ii) of the Convention.

3.17 The Committee noted the Group's discussion on possible future refinements to regulations 14.2, 14.5 and 14.6, as well as to regulations 13.6.3 and 13.6.4 of MARPOL Annex VI.

Instructions to the Secretariat

3.18 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 MARPOL.

4 HARMFUL AQUATIC ORGANISMS IN BALLAST WATER

General

4.1 The Committee, having recalled that the BWM Convention had entered into force on 8 September 2017, noted that the number of Contracting Governments was currently 79, representing 80.94% of the world's merchant fleet tonnage.

Consideration and approval of ballast water management systems

4.2 The Committee noted that the thirty-sixth meeting of the GESAMP-Ballast Water Working Group (GESAMP-BWWG 36) had been held from 4 to 7 June 2018 at IMO Headquarters, chaired by Mr. J. Linders, and that its report had been issued as document MEPC 73/4/2. During the meeting, GESAMP-BWWG had reviewed two proposals for approval of ballast water management systems (BWMS) that made use of active substances, submitted by Germany and Norway.

Basic Approval

4.3 The Committee approved the report of GESAMP-BWWG 36 (MEPC 73/4/2) in general and, having considered the recommendations contained in annex 4 of the report, agreed to grant Basic Approval to the BIOBALLAST 1000 ballast water management system, proposed by Germany in document MEPC 73/4, and invited the Administration of Germany to take into account all the recommendations made in the report (MEPC 73/4/2, annex 4) during the further development of the system.

Final Approval

4.4 The Committee, having considered the recommendations contained in annex 5 of the report, agreed to grant Final Approval to the Envirocleanse inTank™ BWTS (Electrochlorination Variation), proposed by Norway in document MEPC 73/4/1, and invited the Administration of Norway to verify that all recommendations contained in the report (MEPC 73/4/2, annex 5) were fully addressed prior to the issuance of the Type Approval Certificate.

Future meetings of the GESAMP-BWWG

4.5 The Committee noted that the thirty-seventh meeting of GESAMP-BWWG had been scheduled for 26 to 30 November 2018 with detailed information specified in BWM.2/Circ.68.

Type approved BWMS

4.6 The Committee noted the information provided in document MEPC 73/INF.7 (France) on the type approval of the BIO SEA® B ballast water management system and thanked the delegation of France for the information provided.

Experience-building phase

4.7 The Committee recalled that MEPC 71 had adopted resolution MEPC.290(71) on *The experience-building phase associated with the BWM Convention* and MEPC 72 had approved the *Data gathering and analysis plan for the experience-building phase* (BWM.2/Circ.67).

4.8 The Committee recalled also that MEPC 72, having considered document MEPC 72/4/2 (Secretariat) addressing the expected budgetary implications of the data gathering and analysis plan, had requested the Secretariat to initiate the necessary actions for the implementation of the experience-building phase and to update it at this session about any pledges for financial support that might be received, so that an informed decision could be made.

4.9 In this context, the Committee noted that the Secretariat had initiated the preparations for a module in the Global Integrated Shipping Information System (GISIS) to accommodate the experience-building phase, structured in accordance with the interfaces in the approved data gathering and analysis plan (BWM.2/Circ.67), and that the module was expected to be available by the end of 2018, allowing Member States to start providing data from the beginning of 2019.

4.10 The Committee thanked the Governments of Australia, France and Norway for their pledged financial support to the experience-building phase and noted that the Government of Canada was exploring options for such support.

4.11 In light of this information, the Committee encouraged Member States to use the GISIS module once it was available to provide information in accordance with the approved data gathering and analysis plan for the experience-building phase (BWM.2/Circ.67), and reiterated its invitation to Member Governments and international organizations to liaise with the Secretariat with regard to any financial support that they would be providing.

Guidance on system design limitations of ballast water management systems and their monitoring

4.12 Having recalled that PPR 5 had agreed to the draft *Guidance on system design limitations of ballast water management systems and their monitoring* (PPR 5/24, annex 19), and had invited the Committee to approve it for dissemination as a BWM.2 circular, the Committee considered document MEPC 73/11/3 (IMarEST) proposing amendments to the draft guidance.

4.13 Following discussion, the Committee referred the draft guidance to the Ballast Water Review Group for finalization, taking into account the proposals in document MEPC 73/11/3.

Validation of the compliance of individual BWMS with regulation D-2 of the BWM Convention in conjunction with their commissioning

4.14 The Committee recalled that, following the outcome of III 4 and A 30 on this matter, MEPC 72 had invited interested Member Governments and international organizations to submit comments on the proposed text prepared by the Ballast Water Review Group (MEPC 72/WP.9, annex 5) with a view to the finalization, at this session, of guidance on this matter, and had invited interested Parties to submit proposals for an amendment to regulation E-1.1.1 of the BWM Convention.

4.15 In this context, the Committee considered document MEPC 73/4/5 (Japan) expressing the view that there were still a number of implementation issues that needed to be addressed before making mandatory the validation of compliance of BWMS with the D-2 standard during commissioning. The delegation of Japan proposed to keep mandatory validation in abeyance until data and experience had been gained.

4.16 In the ensuing discussion, the majority of delegations that spoke did not support the proposal in document MEPC 73/4/5, expressing the view that this validation was essential to ensure the effective operation of ballast water management systems installed on board ships and should not be kept in abeyance.

4.17 It was also noted that sampling undertaken in the context of this process would be indicative and not detailed.

4.18 In conclusion, the Committee referred the draft guidance (MEPC 72/WP.9, annex 5) to the Ballast Water Review Group for finalization, taking into account the comments made in plenary.

4.19 The Committee also reiterated its invitation to interested Parties to consider submitting proposals for an amendment to regulation E-1.1.1 of the BWM Convention to its next session.

Contingency measures in the ballast water management plan

4.20 The Committee recalled that MEPC 72 had invited Member Governments and international organizations to submit proposals to clarify when elements introduced by the *Guidance on contingency measures under the BWM Convention* (BWM.2/Circ.62) should be included in ballast water management plans.

4.21 In this connection, the Committee considered document MEPC 73/4/8 (IMarEST) proposing elements related to contingency measures that might be included in ballast water management plans, and noted the information contained in document MEPC 73/INF.8 (INTERTANKO) on guidance on ballast water contingency measures for tankers.

4.22 Following brief discussion, the Committee instructed the Ballast Water Review Group to further consider the matter of contingency measures in the ballast water management plan, taking into account documents MEPC 73/4/8 and MEPC 73/INF.8, and advise the Committee accordingly.

Recording of the operation of ballast water pumps

4.23 The Committee recalled that MEPC 72, having considered document MEPC 72/4/7 (Islamic Republic of Iran) containing a proposal to monitor ballast water exchange or treatment operations on board ships through recording the operation of ballast water pumps and the position using the Global Positioning System (GPS), had invited the delegation of the Islamic Republic of Iran to submit a proposal for a new output to develop guidance on recording the operation of ballast water pumps at a future session.

4.24 In this regard, the Committee considered document MEPC 73/4/4 (Islamic Republic of Iran) presenting a study on cases of non-compliance observed in ballast water reporting forms in regard to controlling ballast water exchange or treatment operations in ships, in support of its proposal.

4.25 In the ensuing discussion, several delegations expressed the view that the ballast water record book, which was required by the BWM Convention, provided all the necessary information required for port State control inspections. They were also of the view that the proposal was too prescriptive as well as disproportionate to the issue as demonstrated by the submitted data. Some other delegations expressed support for the proposal and for its further consideration at the next session.

4.26 Following consideration, the Committee concluded that, should the Islamic Republic of Iran wish to pursue this matter further, a proposal for a new output should be submitted at a future session in accordance with the Committees' Method of work (MSC-MEPC.1/Circ.5/Rev.1) and taking into account the comments and concerns expressed at this session.

Other matters related to ballast water management***Clarification on article 3.2(f) of the BWM Convention***

4.27 The Committee considered document MEPC 73/4/6 (China) seeking clarification on article 3.2(f) of the BWM Convention with regard to permanent ballast water in sealed tanks on ships, which was not subject to discharge, and proposing to develop a unified interpretation of article 3.2(f) of the BWM Convention.

4.28 There was general support for the need to develop a unified interpretation of article 3.2(f) of the BWM Convention, and some delegations noted that there would also be a need for a definition of what could be considered a sealed tank and the associated process. Some delegations were of the view that article 3.2(f) was an exemption provision and the Convention would not apply to ships coming under the scope of this article.

4.29 Recalling that the PPR Sub-Committee had a standing agenda item on "Unified interpretation to provisions of IMO environment-related conventions", the Committee invited interested Member Governments and international organizations to submit proposals for a unified interpretation of article 3.2(f) of the BWM Convention at a future session of the PPR Sub-Committee.

Proposed amendments to the form of the International Ballast Water Management Certificate

4.30 The Committee considered document MEPC 73/4/7 (China) proposing amendments to the form of the International Ballast Water Management Certificate (IBWMC) regarding the items under "Details of ballast water management method(s) used", to capture certain means of compliance with the BWM Convention, such as exemptions, equivalent measures, other methods approved by MEPC, or discharging into reception facilities, which were not captured in the current form of the IBWMC.

4.31 There was general support for the need to amend the form of the certificate, while recognizing that further review was required in order to finalize the details of the amendments.

4.32 In conclusion, the Committee invited Member Governments and international organizations to submit further comments to its next session with a view to consideration by the Ballast Water Review Group.

Information on other matters related to ballast water management

4.33 The Committee noted the information contained in the following documents:

- .1 MEPC 73/INF.3 (Antigua and Barbuda et al.) on guidelines for ballast water exchange and sediment management in Wider Caribbean Region areas, noting further that these guidelines were also disseminated by means of BWM.3/Circ.2;
- .2 MEPC 73/INF.20 (Denmark) on the use of standard test organisms as surrogate for the robust testing of ballast water management systems in view of their type approval; and
- .3 MEPC 73/INF.21 (Denmark) on activities related to exemptions and the application of the Same Risk Area concept.

Establishment of the Ballast Water Review Group

4.34 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 *Guidance on system design limitations of ballast water management systems and their monitoring*, using document PPR 5/24, annex 19, as a basis, and taking into account the proposals in document MEPC 73/11/3;
- .2 finalize the draft guidance on validation of the compliance of individual BWMS with regulation D-2 of the BWM Convention in conjunction with their commissioning, using document MEPC 72/WP.9, annex 5, as a basis; and
- .3 further consider the matter of contingency measures in the ballast water management plan, taking into account documents MEPC 73/4/8 and MEPC 73/INF.8, and advise the Committee accordingly.

Report of the Ballast Water Review Group

4.35 Having considered the relevant part of the report of the Ballast Water Review Group (MEPC 73/WP.10, paragraphs 4 to 20 and annexes 1 to 3), the Committee approved the report in general and took action as outlined below.

Guidance on system design limitations of ballast water management systems and their monitoring

4.36 The Committee approved BWM.2/Circ.69 on *Guidance on system design limitations of ballast water management systems and their monitoring*, set out in annex 1 to document MEPC 73/WP.10.

Validation of the compliance of individual BWMS with regulation D-2 of the BWM Convention in conjunction with their commissioning

4.37 The Committee instructed the Correspondence Group on Updated Survey Guidelines under the Harmonized System of Survey and Certification (HSSC), established by III 5, to ensure that the validation of BWMS at their commissioning be incorporated in the 2019 HSSC Guidelines for all ships, including new ballast water management system installations on existing ships.

4.38 The Committee approved BWM.2/Circ.70 on *Guidance for the commissioning testing of ballast water management systems*, set out in annex 2 to document MEPC 73/WP.10.

4.39 The observer from the International Association of Classification Societies (IACS), noting that commissioning testing was not required by any mandatory instruments but was recommended to be implemented as soon as possible for new BWMS installations on both new and existing ships, proposed to invite submissions, at the next session, for an amendment to an appropriate mandatory instrument to require commissioning testing, and for interim measures to address this matter before the entry into force of any such amendment, under the new output on "Urgent measures emanating from issues identified during the experience-building phase of the BWM Convention". Having noted the support for the proposal, the Committee invited Member Governments and international organizations to submit such proposals to the next session.

Contingency measures in the ballast water management plan

4.40 The Committee concurred with the view of the Group that each Member State could determine the timing for the incorporation of information on contingency measures in the ballast water management plans of ships flying its flag.

4.41 In considering the draft amendments to the *Guidelines for ballast water management and development of ballast water management plans (G4) (resolution MEPC.127(53))*, the observer from ICS proposed that, as the new paragraph 4.3 added in part B of the Guidelines (G4) was non-mandatory, the word "should" in the draft added text should be replaced by "may". Some delegations noted that the word "should" was appropriate for non-mandatory text and did not agree with this proposal. However, a majority of delegations supported this proposal and, consequently, the Committee agreed to replace the word "should" with "may" in the above-mentioned new paragraph 4.3.

4.42 The Committee adopted resolution MEPC.306(73) on *Amendments to the Guidelines for ballast water management and development of ballast water management plans (G4)*, as set out in annex 2.

Future work

4.43 The Committee noted the request of the Group on the re-establishment of the Review Group at MEPC 74 in accordance with the provisions of regulation D-5 of the BWM Convention.

5 AIR POLLUTION AND ENERGY EFFICIENCY

5.1 The Committee agreed to consider documents submitted under this agenda item and relevant items from the outcome of PPR 5 (MEPC 73/11), together with document MEPC 73/INF.5 submitted under agenda item 11.

OUTCOME OF PPR 5

5.2 The Committee considered the action requested of it by PPR 5 concerning air pollution prevention (MEPC 73/11, paragraphs 3.7 to 3.14 and 3.27) and took decisions as outlined below.

Impact on the Arctic of emissions of black carbon from international shipping

5.3 The Committee noted that the Sub-Committee had:

- .1 agreed to the Reporting protocol for voluntary measurement studies to collect black carbon data, as set out in annex 6 to document PPR 5/24;
- .2 identified the most appropriate black carbon measurement methods for data collection as Filter Smoke Number (FSN), Photo Acoustic Spectroscopy (PAS) and Laser Induced Incandescence (LII); and
- .3 invited Member Governments and international organizations to continue to collect black carbon data, using the agreed Reporting protocol and measurement methods, and to submit relevant data to PPR 6.

Guidelines for the discharge of exhaust gas recirculation (EGR) bleed-off water

5.4 The Committee recalled that MEPC 71, having considered the draft guidelines for the discharge of exhaust gas recirculation (EGR) bleed-off water developed by PPR 4, together with relevant commenting documents (MEPC 71/9/3 and MEPC 71/9/7), had instructed PPR 5 to reconsider and finalize the draft guidelines, with a view to adoption at this session.

5.5 The Committee, having considered the draft guidelines prepared by PPR 5, and having clarified that the draft guidelines should apply to a marine diesel engine fitted with an EGR device having a bleed-off water discharge arrangement, for which the EIAPP Certificate was first issued on or after 1 June 2019 (see paragraph 5.77), adopted resolution MEPC.307(73) on the *2018 Guidelines for the discharge of exhaust gas recirculation (EGR) bleed-off water*, as set out in annex 3.

5.6 In this connection, the Committee concurred with the Sub-Committee's view that the proposals described in paragraphs 8 to 10 of document MEPC 71/9/7 (IACS) would require a new output.

Revision of certification requirements for SCR systems under the NO_x Technical Code 2008

5.7 The Committee recalled that MEPC 71, having adopted resolution MEPC.291(71) on the *2017 Guidelines addressing additional aspects of the NO_x Technical Code 2008 with regard to particular requirements related to marine diesel engines fitted with selective catalytic reduction (SCR) systems* (2017 SCR Guidelines), had instructed the PPR Sub-Committee to develop revised certification requirements for SCR systems under the NO_x Technical Code 2008, in order to allow Scheme A and Scheme B to be made equally applicable.

5.8 The Committee noted the intervention of the observer from IACS that the phrase "Scheme B" in the NO_x Technical Code would introduce a new, undefined term into the NO_x Technical Code 2008 and agreed to the proposal that the text should be amended to read "the procedure not involving the testing for the combined engine/NO_x-reducing device on a test bed".

5.9 The Committee, having considered draft amendments to the NO_x Technical Code 2008 concerning certification requirements for SCR systems and draft amendments to the 2017 SCR Guidelines prepared by PPR 5:

- .1 approved draft amendments to the NO_x Technical Code 2008 concerning certification requirements for SCR systems, as set out in annex 4 (see also paragraph 11.25), with a view to adoption at MEPC 74, and requested the Secretary-General to circulate them in accordance with MARPOL article 16(2); and
- .2 approved, in principle, the draft MEPC resolution on *Amendments to the 2017 Guidelines addressing additional aspects of the NO_x Technical Code 2008 with regard to particular requirements related to marine diesel engines fitted with selective catalytic reduction (SCR) systems* (resolution MEPC.291(71)), as set out in annex 9 to document PPR 5/24, with a view to adoption at MEPC 74, in conjunction with the above-mentioned draft amendments to the NO_x Technical Code 2008.

Review of the 2015 Guidelines for Exhaust Gas Cleaning Systems

5.10 The Committee recalled that MEPC 69 had agreed to a new output on "Review of the 2015 Guidelines for exhaust gas cleaning systems (resolution MEPC.259(68))" and had instructed PPR 5 to start its work on this output.

5.11 In this connection, the Committee noted the progress made at PPR 5 on the revision of the above-mentioned Guidelines and that the Secretariat, as requested by the Sub-Committee, had liaised with the chair of GESAMP to seek further advice on the development of draft revised guidelines for exhaust gas cleaning systems, which would be submitted to PPR 6 for consideration.

5.12 The Committee noted an intervention by the observer from INTERTANKO that interim guidance from GESAMP in document MEPC 59/4/19 had identified there was a need to consider that the environmental benefits of reducing pollution to air were not diminished should discharge washwater present additional risks, especially as in future there would be more ships using exhaust gas cleaning systems leading to a potential increased risk and possible unintended consequences to the marine aquatic environment. The Committee agreed to instruct PPR 6 to consider this view when reviewing the 2015 Guidelines for exhaust gas cleaning systems, in conjunction with further advice from GESAMP.

5.13 In addition, the Committee, having noted document MEPC 73/INF.5 (CESA) providing the results of a sampling campaign of washwater from exhaust gas cleaning systems on a series of ships and the subsequent analysis, forwarded it to PPR 6 for information.

Unified interpretation on engine test cycles required by the NO_x Technical Code 2008

5.14 The Committee recalled that MEPC 71, having considered document MEPC 71/5/4 (IACS) providing the latest version of IACS Unified Interpretation MPC51 on engine test cycles as required by paragraph 3.2.1 of the NO_x Technical Code 2008, had forwarded the document to PPR 5 for consideration.

5.15 In this connection, the Committee noted that the Sub-Committee, having considered document MEPC 71/5/4, in conjunction with commenting document PPR 5/20/1 (IMarEST), had agreed not to pursue the work any further due to a lack of sufficient support for the proposed unified interpretation by Member Governments.

5.16 As requested, a statement made by the observer from IACS is set out in annex 18.

Consistent implementation of regulation 14.1.3 of MARPOL Annex VI

5.17 The Committee noted that the Sub-Committee had agreed to the work plan to complete the output on "Consistent implementation of regulation 14.1.3 of MARPOL Annex VI" and the outline of the draft guidelines for consistent implementation of regulation 14.1.3 of MARPOL Annex VI.

Outcome of the Intersessional Meeting on Consistent Implementation of Regulation 14.1.3 of MARPOL Annex VI

5.18 The Committee recalled that MEPC 72, having considered the recommendation by PPR 5, had authorized the Intersessional Meeting on Consistent Implementation of Regulation 14.1.3 of MARPOL Annex VI (ISWG-AP 1), which had been held from 9 to 13 July 2018, to report its outcome concerning the development of guidance on ship implementation planning for 2020 to this session, for consideration and action, as appropriate.

5.19 The Committee, having considered document MEPC 73/5 (Secretariat) on the relevant outcome of the Intersessional Meeting, took action as outlined below.

5.20 The Committee had for its consideration the draft MEPC circular on Guidance on the development of a ship implementation plan for the consistent implementation of the 0.50% sulphur limit under MARPOL Annex VI, as set out in the annex to document MEPC 73/5.

5.21 The Committee considered whether reference to "practical and pragmatic approach by port State control authorities" should be included in the draft MEPC circular.

5.22 In the ensuing discussion, the following comments, inter alia, were made:

- .1 a level playing field is required but shipowners do not control the supply of fuel oil and so a "practical and pragmatic approach" should be included to ensure port State control authorities take into account all possible circumstances and difficulties that ships may encounter when complying with the 0.50% sulphur limit;
- .2 the proposal is not supported as inclusion of the phrase "practical and pragmatic approach" invites further legal interpretation leading to uncertainty;
- .3 it has already been demonstrated that port State control officers take an adequate and proportional approach to implementation of the 0.10% sulphur limit in emission control areas;
- .4 there are difficulties for different sectors with the implementation of the standard and so the inclusion of a "practical and pragmatic approach" is supported along with an associated experience-building phase as proposed in document MEPC 73/5/14;
- .5 where a shipowner demonstrates that they have undertaken due diligence they should not be penalized and port States should take no control measures as the provisions in regulation 18.2.3 of MARPOL Annex VI permit; a consistent approach between port State control authorities is required;
- .6 consistency of port State control is a goal of those Parties that are members of a port State control memorandum of understanding and there should be consideration of what more could be done; and
- .7 it is logical and makes common sense for control measures to be consistently applied.

5.23 Following consideration, the Committee agreed that reference to "practical and pragmatic approach by port State control authorities" should not be included in the draft MEPC circular. Furthermore, the Committee recognized the importance of consistent implementation of enforcement measures, and noted that PPR 6 would consider the matter further during its consideration of the draft guidelines for consistent implementation of the 0.50% sulphur limit as set out in paragraph 3.2 of the annex to document PPR 6/8.

5.24 The Committee also considered the validity of the draft guidance, in particular, the proposal that the guidance should expire on 1 January 2020 and agreed to delete this draft provision as the guidance provided some information that would remain relevant after the entry into effect of the 0.50% sulphur limit.

5.25 The Committee considered document MEPC 73/5/12 (India et al.) proposing modifications to appendix 2 of the draft guidance concerning the additional guidance for the development of the ship implementation plan (impact on machinery systems).

5.26 In the ensuing discussion, the following comments, inter alia, were made:

- .1 the requirement is for safe, compliant fuel oil to be supplied to a ship, and to be safe the fuel oil should comply with ISO 8217:2017, SOLAS II-2 and regulation 18 of MARPOL Annex VI;
- .2 the additional guidance identifies that ships may have multiple fuel oil tanks and that consideration needs to be given as part of the implementation planning as to whether the compliant fuel oil needs to be heated and so tank heating capacity should be retained; and
- .3 it is important to include the additional guidance proposed to formalize what may be done to a greater extent.

5.27 Following consideration, the Committee approved the MEPC circular on *Guidance on the development of a ship implementation plan for the consistent implementation of the 0.50% sulphur limit under MARPOL Annex VI*, as set out in the annex to document MEPC 73/5 as further modified, including the proposals in document MEPC 73/5/12, and instructed the Secretariat to issue the guidance as circular MEPC.1/Circ.878.

5.28 The Committee, having noted the discussion of the Intersessional Meeting related to the safety implications associated with the use of low-sulphur fuel oil (MEPC 73/5, paragraphs 16 to 23), invited MSC 100 to consider the outcome of the Intersessional Meeting concerning the safety implications associated with the use of low-sulphur fuel oil, and take action as appropriate, noting the initiative of industry organizations to develop industry guidance and possibly training material.

5.29 In this connection, the Committee considered the following commenting documents:

- .1 MEPC 73/5/14 (Bahamas et al.), providing information on respective challenges that the industry faces with the transition to the 0.50% m/m sulphur fuel oil and proposing to establish an experience-building phase (EBP) associated with worldwide availability of safe compliant fuel oil; and
- .2 MEPC 73/5/17 (ISO et al.), providing an update and projected timeline on a joint industry initiative to develop an industry guidance document, and possibly training materials, for all relevant stakeholders on the potential safety and operational issues related to the supply and use of 0.50% maximum sulphur fuel oils.

5.30 In the ensuing discussion, the following comments, inter alia, were made:

- .1 in introducing document MEPC 73/5/14 on behalf of the other co-sponsors, the delegation of the Marshall Islands clarified that the proposal was not an attempt to amend the 0.50% sulphur limit or delay the effective date, with the focus being on the provisions set out in regulation 18.2.1 to 18.2.5 of MARPOL Annex VI; that the co-sponsors were not seeking a wholesale relaxation of the provisions but were seeking greater transparency to ensure a consistent manner was taken with enforcement action; and that the emphasis should be on data collection and analysis to monitor the new standard, which should be for a fixed time period;

- .2 the proposal is worth serious consideration and is supported; increased cost of fuel oil as a result of the rule is not isolated to the maritime industry; there should be a focus on data collection and information sharing so that we can move forward together; the scale and impact of the 0.50% sulphur limit is much more significant than the 0.10% sulphur limit for emission control areas and it is necessary then to consider all aspects before taking enforcement action; the Committee should consider inviting proposals to MEPC 74 where the work on the proposal could be considered further and completed;
- .3 what is the point of the proposed EBP? What is its purpose if the rule is not going to be changed? Regulation 18 of MARPOL Annex VI already incorporates provisions to provide for no deviation of voyage nor undue delay and the current situation is very different to the introduction of an EBP for the Ballast Water Management Convention;
- .4 all efforts within the framework of IMO are supported and are mindful of the imminent implementation of the sulphur limit; safety issues are not underestimated and it is important for these to be considered by MSC;
- .5 there are considerable risks for shipowners and ship operators; the 0.50% sulphur limit presents to them disproportionate risks and responsibilities including safety risks with fuel oil quality; risks to seafarers need to be considered as they need to learn to use the compliant fuel oils in a safe manner;
- .6 safety issues cannot and should not be considered in isolation from day-to-day experience and industry already has had significant experience of changes to fuel oil; timely preparation is key as has been shown with experience with fuel changeover for the ECA sulphur limit; progress is noted with the guidance for development of a ship implementation plan and ongoing work to address risks and timely implementation;
- .7 concerns are noted, safety issues have been forwarded to MSC and PPR 6 is expected to finalize guidance on a Fuel Oil Non-Availability Report (FONAR); what will the EBP entail? How does it relate to existing work output under the PPR Sub-Committee? The proposed EBP may prolong uncertainty and so is not supported;
- .8 it is important to gain experience of the new fuel oil, and the proposal is supported as it is a pragmatic measure to ensure the 2020 sulphur limit is realized but that there is safe implementation; the complementary industry guidance under preparation is welcomed;
- .9 complete support for successful implementation of the sulphur limit is given; all Parties to MARPOL Annex VI should fulfil their obligation under regulation 18 of MARPOL Annex VI; it is essential to collect data before 1 January 2020 on safe, compliant fuel oil that can be made available to the shipping industry to safeguard seafarers and ships; more consideration is needed and industry has already submitted two related documents to MSC 100;
- .10 concerns are acknowledged and there is a need for an EBP which is not an attempt to defer the requirement but just to ensure effective implementation;

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- .11 there is a need to identify difficulties in implementation of the 2020 sulphur limit; the concerns of various stakeholders are genuine; EBP would enable all Parties to take appropriate measures for implementation;
- .12 there are concerns with the proposed EBP, which appears to want to make formal a review of the provisions as with the Ballast Water Management Convention; such an approach would create significant uncertainties in implementation of the 2020 sulphur limit; this could send out the wrong signal that there could be a delay; that could undermine the credibility of the Organization and the outcome of the EBP as proposed is uncertain; an alternative could be for the Secretariat to collect data including on fuel oil non-availability using the modules in GISIS for regulations 18.2.4 and 18.2.5 of MARPOL Annex VI; if the Committee agrees to an EBP then it should be limited in scope to regulation 18 "Fuel oil availability and quality" only;
- .13 the ECA fuel oil experience is not comparable to the 2020 sulphur limit as it is more complex especially for those ships operating in the tramp trades; as an example a fuel oil major has placed an engineer on one of its ships to prepare procedures for a specific fuel oil blend; 0.50% is a global rule and unfair implementation cannot be addressed by guidelines as these cannot solve all the technical challenges;
- .14 for a successful transition there is a need to specify the fuel oil properties as soon as possible; design and operational aspects need to be considered; the benefits of formal data collection and analysis of the new fuel oil standard are recognized;
- .15 we are committed to the introduction of the 0.50% sulphur limit but there is a need for guidance and for the safety issues to be addressed;
- .16 the precise purpose of the EBP needs to be defined; the focus is on data collection and analysis to gain global experience using the data gathered; existing mechanisms such as GISIS should be used where currently the level of reporting by Parties to MARPOL Annex VI is unsatisfactory; the structure of the proposal needs refining and limiting of the scope to regulation 18 should be considered;
- .17 document MEPC 73/5/14 identifies major concerns of industry and major flag States and reflects concerns that there will be a lack of compliant fuel oil in Latin America due to difficulties in the production sector;
- .18 the Organization is already focused on transitional issues and any action that could introduce seeds of doubt or raise questions about the firm commitment should be avoided;
- .19 EBP cannot be supported due to lack of specific details such as time duration and uncertainty this could cause, but some form of data gathering through a mechanism to be developed is supported;
- .20 the situation cannot compare to that arising with the Ballast Water Management Convention and so the EBP cannot be supported; and

- .21 regulatory certainty is a key condition to providing compliant fuels for the implementation of the 0.50% sulphur requirement by 2020; the oil industry has been preparing to commit to major investment projects and research and development activities to identify options and develop new fuel formulations; it is important to recognize that the possibility to offer a range of compliant fuels rather than just a single fuel with a narrow specification is a key factor in making larger volumes of fuel available by the transition date; more information on the characteristics of fuels that are likely to be available by 2020 should be forthcoming from the joint industry initiative that is underway; all involved are working in a collaborative way – but within the constraints of competition laws.

5.31 As requested, statements made by the delegations of the United States and Saudi Arabia are set out in annex 18.

5.32 The Committee noted, in particular, the following views:

- .1 the co-sponsors of document MEPC 73/5/14 had clarified that the proposal was not an attempt to amend the 0.50% sulphur limit or delay the effective date, with the focus being on the provisions set out in regulation 18.2.1 to 18.2.5 of MARPOL Annex VI; the co-sponsors were not seeking a relaxation of the provisions but were seeking greater transparency to ensure consistent enforcement action;
- .2 there were concerns on safety issues and fuel oil quality as well as how to deal with the situation of non-availability of compliant fuel oil;
- .3 there were concerns with the proposed EBP, which appeared to want to make formal a review of the provisions as with the Ballast Water Management Convention; this could send out the wrong signal that there could be a delay; and
- .4 the term "experience-building phase" was confusing and the precise purpose of the experience-building phase needed to be defined; the focus was on data collection and analysis to gain global experience using the data gathered; existing mechanisms such as GISIS should be used where currently the level of reporting by Parties to MARPOL Annex VI was unsatisfactory; the structure of the proposal needed refining and limiting of the scope to regulation 18 should be considered.

5.33 Based on the discussion, the Committee invited further concrete proposals to MEPC 74 on how to enhance the implementation of regulation 18 of MARPOL Annex VI, in particular on fuel oil quality and reporting of non-availability of compliant fuel oils, including the enhancement of the GISIS MARPOL Annex VI module to support data collection and analysis.

Early reporting of availability of 2020 compliant fuel oils

5.34 The Committee considered document MEPC 73/5/15 (Liberia) proposing an MEPC resolution to urge Member States to report the availability of compliant fuel oil well in advance of 1 January 2020 to enable shipowners and operators to gain experience with the carriage and use of the new fuel oils on their ships and with proposed ship implementation plans.

- 5.35 In the ensuing discussion, the following views, inter alia, were expressed:
- .1 the proposal is supported as it is essential to make the information available to make the transition a success;
 - .2 preparation of a draft resolution by PPR 6 would mean the resolution only being adopted at MEPC 74 and other approaches should be considered; Parties to MARPOL Annex VI should be urged to submit data as soon as possible;
 - .3 the proposal is supported, in general, and could be reflected in the report of the Committee;
 - .4 a cautious approach should be considered in a market situation where there is little demand for the 0.50% compliant fuel oil before 2020;
 - .5 the issue applies to "all relevant parties" and not just the Parties to MARPOL Annex VI;
 - .6 as has been proposed previously, regional fuel oil reporting should be considered as part of the annual sulphur monitoring undertaken by the Secretariat;
 - .7 information should be reported for all compliant fuel oils, not just 0.50% compliant fuel oil, and could be considered at MEPC 74 with proposals for enhancing the implementation of regulation 18 of MARPOL Annex VI;
 - .8 reporting compliant fuel oil will help with smooth implementation and all stakeholders should be encouraged;
 - .9 competition and anti-trust laws forbid and make illegal the sharing of information by the refinery industry to the extent that refiners have a legal obligation not to provide such information; and
 - .10 the question is not whether compliant fuel oil will be made available in the future but rather how much compliant fuel oil is available today.

5.36 Following consideration, the Committee urged Parties to MARPOL Annex VI to inform the Organization of the availability of compliant fuel oils in its ports and terminals via GISIS MARPOL Annex VI module well in advance of 1 January 2020, in accordance with regulation 18.1 of MARPOL Annex VI. Furthermore the Committee agreed to instruct the Secretariat to issue circular MEPC.1/Circ.880 on *Reporting of availability of compliant fuel oils in accordance with regulation 18.1 of MARPOL Annex VI*.

AIR POLLUTION FROM SHIPS

Fuel oil quality

5.37 The Committee recalled that MEPC 72 had approved MEPC.1/Circ.875 on *Guidance on best practice for fuel oil purchasers/users for assuring the quality of fuel oil used on board ships*.

Guidance on best practice for Member States/coastal States

5.38 The Committee recalled that MEPC 71, having considered the report of the Correspondence Group on Fuel Oil Quality (MEPC 71/5/3 and MEPC 71/INF.8), had re-established the Correspondence Group, under the coordination of the United States, and had instructed it to finalize the draft guidance on best practice for Member States/coastal States, using annex 2 to document MEPC 71/5/3 as a basis.

5.39 The Committee considered the report of the Correspondence Group (MEPC 73/5/3 and MEPC 73/INF.4) providing draft best practice for Member States/coastal States, and instructed the Working Group to further develop the draft guidance on best practice for Member States/coastal States, using the annex to document MEPC 73/5/3 as a basis, with a view to finalization.

Guidance on best practice for fuel oil suppliers

5.40 The Committee recalled that MEPC 72, having considered documents MEPC 72/5/6 and MEPC 72/INF.13 (both by IBIA), had concurred with the view of the Working Group on Air Pollution and Energy Efficiency that the draft best practice guidance for fuel oil suppliers as contained in document MEPC 72/INF.13 could form a basis for the development of IMO guidance and had invited Member Governments and international organizations to submit further comments to this session.

5.41 The Committee had for its consideration document MEPC 73/5/4 (ICS et al.) providing an updated version of draft best practice for fuel oil suppliers, and instructed the Working Group to finalize the draft guidance on best practice for fuel oil suppliers, using the annex to document MEPC 73/5/4 as a basis and taking into account document MEPC 73/5/4.

Impact of MARPOL Annex VI NO_x Tier III requirements on large yachts

5.42 The Committee had for its consideration the following documents:

- .1 MEPC 73/INF.6 (ICOMIA), providing the full report of a recent study on the re-assessment of the impact of NO_x Tier III requirements on large yachts of less than 500 gross tonnage which were designed and used solely for recreational purposes; and
- .2 MEPC 73/5/11 (ICOMIA), providing additional information relating to the aforementioned study and indicating ICOMIA's intention to propose to MEPC 74 a further delay of five years on the application of NO_x Tier III emission requirements to yachts of 24 m or over and less than 500 gross tonnage.

5.43 Following consideration, the Committee, having noted the information provided in documents MEPC 73/5/11 and MEPC 73/INF.6, agreed that should Parties to MARPOL Annex VI wish to pursue a further delay of application of relevant regulations, a proposal for amendments to MARPOL Annex VI should be submitted to a future session of the Committee, and noted that such a proposal would not require a new output.

ENERGY EFFICIENCY OF SHIPS**EEDI reviews required under regulation 21.6 of MARPOL Annex VI**

5.44 The Committee recalled that:

- .1 in accordance with regulation 21.6 of MARPOL Annex VI, at the beginning of phase 1 and at the midpoint of phase 2, the Organization shall review the status of technological developments and, if proven necessary, amend the time periods, the EEDI reference line parameters for relevant ship types and the reduction rate;
- .2 MEPC 70 had agreed to retain the current reduction rates, time periods and EEDI reference line parameters in the phase 2 requirements for ship types other than ro-ro cargo and ro-ro passenger ships; and
- .3 MEPC 72 had adopted amendments to regulation 21 of MARPOL Annex VI regarding EEDI requirements for ro-ro cargo and ro-ro passenger ships (resolution MEPC.301(72)).

5.45 The Committee recalled further that:

- .1 MEPC 71 had established the Correspondence Group on EEDI Review Beyond Phase 2, under the coordination of Japan, and had instructed it to submit a progress report to MEPC 72 (MEPC 72/5/4, MEPC 72/5/5 and MEPC 72/INF.12), an interim report to this session and a final report to MEPC 74; and
- .2 MEPC 72 had adopted resolution MEPC.304(72) on *Initial IMO Strategy on reduction of GHG emissions from ships*, which included a level of ambition to review with the aim of strengthening the energy efficiency design requirements for ships with the percentage improvement for each phase to be determined for each ship type, as appropriate.

Report of the Correspondence Group on EEDI Review Beyond Phase 2

5.46 The Committee considered document MEPC 73/5/2 (Japan) providing the interim report of the Correspondence Group on EEDI Review beyond Phase 2, including recommendations for the time period and the reduction rates for EEDI phase 3 requirements, and took decisions as outlined below.

5.47 Some delegations expressed disappointment with the interim report, which was considered as lacking in ambition to the extent that it did not reflect the levels of ambition adopted by MEPC 72 as part of the Initial IMO Strategy on reduction of GHG emissions from ships and that amendments should have been proposed recommending a strengthening of the EEDI requirements for all ship types, including bringing forward phase 3 and increasing reduction rates to 40% for phase 3, and identifying a phase 4 with reduction rates and timelines.

Minimum propulsion power to maintain the manoeuvrability of ships in adverse conditions

5.48 The Committee had for its consideration the following documents:

- .1 MEPC 73/5/1 (Germany et al.), proposing a revision of the *2014 Guidelines on the method of calculation of the attained Energy Efficiency Design Index (EEDI) for new ships* (resolution MEPC.245(66), as amended by resolutions MEPC.263(68) and MEPC.281(70)), by allowing for a shaft power limitation in order to resolve potential conflicts between EEDI requirements and minimum required propulsion power; and providing the text of draft guidelines for the limitation of ships shaft propulsion power and use of a power reserve when the ship was in danger, as well as draft amendments to MARPOL Annex VI, by deleting regulation 21.5 on minimum required propulsion power;
- .2 MEPC 73/5/13 (ICS et al.), commenting on document MEPC 73/5/1; expressing concerns that the proposal for installed main engine power to be selected based on agreements between the yard and the shipowner would be an unacceptable dilution of safety standards; and recommending that the proposals provided in paragraph 13 of document MEPC 73/5/1 should not be supported and that the *2013 Interim guidelines for determining minimum propulsion power to maintain the manoeuvrability of ships in adverse conditions* (resolution MEPC.232(65), as amended by resolutions MEPC.255(67) and MEPC.262(68)), should be retained until work to develop final guidelines was completed;
- .3 MEPC 73/5/16 (United States), expressing disagreement with regard to the proposals in document MEPC 73/5/1, as the United States considered that those proposals would undermine the intended goals of EEDI, unfairly penalize ships built using designs that were certified since the standards came into effect, hinder the uptake of innovative technologies, and place a large burden on Administrations, port State control officers and ship operators; and
- .4 MEPC 73/INF.13 (Netherlands), providing information on the work done on the minimum power requirements for ships in adverse weather conditions and informing the Committee on further work to be carried out in the Netherlands.

5.49 In the ensuing discussion, the following comments, inter alia, were made:

- .1 further consideration of the proposal set out in document MEPC 73/5/1 is supported, taking into account the concerns expressed in document MEPC 73/5/13;
- .2 concerned with the proposed deletion of mandatory provisions for minimum power in regulation 21.5 of MARPOL Annex VI and do not support this;
- .3 support the proposal in document MEPC 73/5/1, in principle, as it provides a solution to the inherent conflict found in the provisions of regulation 21 of MARPOL Annex VI; however, share concerns over deleting the regulatory requirement for minimum power as it is necessary to understand what is the level of reserve power provided; propose retention of both regulation 21.5 of MARPOL Annex VI and interim guidelines; if shaft power is limited to below Maximum Continuous Rating (MCR), which power would be used for NO_x emission certification?

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- .4 document MEPC 73/5/1 is an interesting proposal to reduce CO₂ emissions while securing safety; it would be necessary to introduce measures to prevent misuse due to difficult-to-identify "emergency situations"; need to avoid carbon leakage and unfair competition; need to examine enforcement including monitoring and reporting with further robust mechanisms introduced; need to retain minimum power provisions and interim guidelines;
 - .5 agree that a significant issue is defining "emergency situations" as need to be defined by port State control authorities; there is a need to address the automatic reduction in EEDI as a result of the proposed shaft power limitation;
 - .6 in principle, the proposed shaft power limitation is supported as a means to develop EEDI necessary to allow it to be a tool for reducing GHG emissions further, but minimum power requirements and interim guidelines must be retained until those guidelines are finalized;
 - .7 whilst the proposal in document MEPC 73/5/1 is supported it could result in new ships having reduced design speeds with consequential impacts on the shipping industry; and furthermore ship safety must not be compromised, so the proposed amendments to regulation 21.5 of MARPOL Annex VI and interim guidelines should not be made until these guidelines are finalized; and
 - .8 support initiative to enhance EEDI as long as it does not compromise safety; this is especially the case for large ships manoeuvring in small channels that are subject to strong currents; these channels are vital shipping lanes and a casualty would have extremely detrimental impacts; safety should be clarified with competent body of the Organization.

5.50 Following discussion, the Committee:

- .1 agreed to consider EEDI phase 3 requirements on the basis of applying the *2013 Interim guidelines for determining minimum propulsion power to maintain the manoeuvrability of ships in adverse conditions*;
- .2 noting some merit in the proposal for "shaft power limitation" contained in document MEPC 73/5/1, instructed the Working Group, taking into account documents MEPC 73/5/13 and MEPC 73/5/16, to consider the proposal further and advise the Committee accordingly; and
- .3 agreed that the minimum power requirements set out in regulation 21.5 of MARPOL Annex VI should be retained.

EEDI phase 3 requirements

5.51 The Committee, in considering the recommendations for EEDI phase 3 requirements by the Correspondence Group in document MEPC 73/5/2, had for its consideration the following documents:

- .1 MEPC 73/5/6 (ICS et al.), stressing that maintaining reference lines was necessary to enable Member States, industry and other parties to monitor and measure progress of the fleet over time, and highlighting that the value and integrity of IMO's EEDI standards would be seriously compromised if the Committee acted to fundamentally alter EEDI reference lines;

- .2 MEPC 73/5/8 (Japan), proposing to apply a 40% reduction for containerships with 40,000 DWT or above; providing a comparative analysis of the future GHG emissions based on the possible EEDI phase 3 requirements proposed by the Correspondence Group; commenting that applying a too stringent EEDI regulation could prevent construction of more energy efficient ships and, based on the outcome of the analysis, would hinder reducing total GHG emissions; and
- .3 MEPC 73/5/10 (Liberia et al.), proposing that EEDI phase 3 should be implemented ahead of schedule in 2022 for containerships and general cargo ships; that new guidelines for minimum power should be established before EEDI phase 3 was implemented for bulk carriers and tankers; and that the new guidelines on minimum power should be agreed by MSC as well as by MEPC.

EEDI phase 3 requirements for bulk carriers and tankers

5.52 The Committee considered proposals for EEDI phase 3 requirements for bulk carriers and tankers. In the ensuing discussion, the following comments, inter alia, were made:

- .1 there is a need to build on concrete data as a reference for improvement; there is a need to address minimum power before phase 3; keep a 30% reduction rate and retain the 2025 date;
- .2 less than 1% of new ships have complied with phase 3 EEDI; minimum power needs to be considered; there are no grounds to increase the reduction rate; reference lines need to be corrected otherwise it could penalize the most energy efficient ships;
- .3 there is a lack of data; the matter is a correction of reference lines rather than modification; proposal is imbalanced due to lack of data for very large ships; as was the case with ro-ro ships, a straight line for the reference line should be used after the last data point;
- .4 phase 3 needs to be strengthened for all ships; current data indicates that many new ships can comply with phase 3; agree to retain 30% reduction rate but the date should be advanced to 2022; reference lines should not be amended as it would risk damaging the Organization's credibility; the Committee needs to reflect real ambition on climate change and so its decision should not be a step in the wrong direction;
- .5 there is a need to amend the reference lines for large tankers;
- .6 bring forward the date to 2022 and retain a 30% reduction rate; some issues have not been clarified; do not support amending the reference lines;
- .7 2022 is supported based on the reserve power concept, which, if used, means the reference lines do not need to be amended;
- .8 propose 2022 for large ships with 2025 retained for medium size; do not support amendment of reference lines;
- .9 propose 2022 with a reduction rate of 30% for large ships – tankers over 250,000 DWT and bulk carriers over 150,000 DWT;

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- .10 there is a lack of large tonnage data and there is need for further correction of the reference lines;
 - .11 the Correspondence Group used historic data and so the date should be advanced to 2022; note some specific difficulties for these ship types and so retain 30% reduction rate; keep reference lines the same to maintain stability; and
 - .12 correction factors should be added to the reference lines for bulk carriers.

5.53 Following consideration, for tankers and bulk carriers, the Committee agreed that:

- .1 the starting year for EEDI phase 3 requirements of 2025 should be retained;
- .2 the required reduction rate for phase 3 of the 30% should be retained; and
- .3 the parameters for determination of reference values should be retained.

5.54 The observer from INTERTANKO, supported by several other delegations, expressed serious concerns that the future EEDI for large tankers would have negative impacts on their future design and stated it was their intention to submit a proposal to MEPC 74 with an acceptable alternative solution. The delegations of Brazil, Ecuador and India, supported by a number of other delegations, raised similar concerns on EEDI requirements for large bulk carriers and suggested that further consideration was needed at MEPC 74 so as to reach an informed and evidence-based decision.

EEDI phase 3 requirements for containerships

5.55 The Committee considered proposals for EEDI phase 3 requirements for containerships. In the ensuing discussion, the following comments, inter alia, were made:

- .1 the start date of 2022 is supported with a reduction rate of 40% applied to all containerships subject to the EEDI requirements;
- .2 in addition to a start date of 2022, reduction rates should be applied as follows: 180,000 DWT and above, to be 45%; 120,000 to 180,000 DWT and above, to be 40%; 50,000 DWT to 120,000 DWT, to be 35%; and up to 50,000 DWT, to be 30%; and
- .3 sympathetic to the idea of a cascade of reduction rates as over compliance with the requirements differs from ship to ship; it would be better to focus on setting requirement on best EEDI of fleet.

5.56 Following consideration, the Committee:

- .1 with regard to the time period, agreed that the starting year of EEDI phase 3 requirements for containerships should be 2022;
- .2 with regard to the reduction rate, agreed, in principle, that the 40% reduction should be applied to all containerships;
- .3 with regard to the reference line, agreed that the parameters for determination of reference values for containerships should be retained; and

- .4 instructed the Working Group to finalize draft amendments to MARPOL Annex VI for the EEDI phase 3 requirements for containerships, using annex 3 to document MEPC 73/5/2 as a basis, taking into account the decision made at plenary, with a view to approval at this session.

EEDI phase 3 requirements for general cargo ships

5.57 The Committee considered proposals for EEDI phase 3 requirements for general cargo ships and agreed that the starting year of EEDI phase 3 requirements for general cargo ships should be 2022 and instructed the Working Group to prepare draft amendments to MARPOL Annex VI for the EEDI phase 3 requirements for general cargo ships.

EEDI phase 3 requirements for other ship types

5.58 The Committee considered proposals for EEDI phase 3 requirements for other ship types. In the ensuing discussion, the following comments, inter alia, were made:

- .1 there is very limited data for ro-ro cargo ship (vehicle carrier) ship type and so the 2025 start date and 30% reduction rate should be retained;
- .2 as the reference lines for ro-ro cargo ships and ro-ro passenger ships were amended the start date should be advanced to 2022;
- .3 the start date should be advanced for all other ship types except ro-ro cargo ships and ro-ro passenger ships; and
- .4 there is a lack of data to justify advancing the starting year and reduction rates for all other ship types.

5.59 Following consideration, the Committee instructed the Working Group, taking into account the comments made in plenary, to consider whether there was sufficient data for the start date of phase 3 for other ships types, excluding ro-ro cargo ships and ro-ro passenger ships, to be advanced to 2022.

EEDI regulations for ice-class ships

5.60 The Committee, having considered correction factors for the calculation of the EEDI for ice-class ships proposed by the Correspondence Group, instructed the Working Group to review the draft amendments to the *2014 Guidelines on the method of calculation of the attained Energy Efficiency Design Index (EEDI) for new ships*, as set out in annex 4 of document MEPC 73/5/2, and advise the Committee accordingly.

5.61 The Committee considered a 5% margin from the reference line for ice-class ships of IA Super and IA as proposed by the Correspondence Group and instructed the Correspondence Group to further consider how to define the margin in more detail and report back to MEPC 74.

5.62 The Committee, having considered the draft amendments to MARPOL Annex VI concerning EEDI regulations for ice-strengthened ships, instructed the Working Group to finalize the draft amendments to MARPOL Annex VI, using annex 5 of document MEPC 73/5/2 as a basis.

5.63 Following the consideration of the interim report, the Committee instructed the Correspondence Group to submit a final report to MEPC 74, in accordance with its terms of reference agreed by MEPC 71 (MEPC 71/17, paragraph 5.61), taking into account the decisions made at this session.

EEDI database

5.64 In considering document MEPC 73/INF.11 (Secretariat) containing a summary of data and information for the 3,622 ships contained in the EEDI database, the Committee:

- .1 noted that after submitting document MEPC 73/INF.11, EEDI information for an additional 592 ships had been received and information for 4,214 ships in total, after being aggregated and anonymized, had been posted in the MARPOL Annex VI module in GISIS; and
- .2 requested the Secretariat to continue submitting a summary of EEDI information to its future sessions.

5.65 The Committee considered document MEPC 73/5/5 (Japan et al.), proposing amendments to MARPOL Annex VI to require mandatory reporting of verified EEDI values for new ships subject to the EEDI phase 0, phase 1 and future EEDI phases.

5.66 In the ensuing discussion, the following comments, inter alia, were made:

- .1 reporting of verified EEDI data should be encouraged and the matter should be considered further at MEPC 74;
- .2 data can only be provided for new ships built and only then for some ship types; due to the current economic climate, there has been a dearth of new ships; earliest entry into force of the mandatory requirements would be in 2020 and that would be after the data is required for the EEDI review; it will increase administrative burden for all parties; there is a commitment from IACS to provide data to inform reviews on future phases of EEDI; having had some difficulties all IACS members have now surveyed their ships and the EEDI data has been provided to the Organization; there is a difference in data between IACS and IHS due to the timing of when the attained EEDI is recorded; harmonized biannual reporting has been agreed with the Secretariat;
- .3 mandatory reporting is supported as long as it does not delay the EEDI review;
- .4 the proposal is supported and ice-class should be added to the list of reported information;
- .5 Member States are encouraged to submit EEDI data, in particular for ship types and sizes for which there was a lack of data;
- .6 reporting of attained EEDI should be made mandatory; and
- .7 a discussion on phase 3 requirements needed to have been preceded by a discussion on data; the Initial IMO GHG Strategy identifies that the impacts on States, in particular on SIDS and LDCs, need to be taken into account for all such legislation; without data Parties to MARPOL Annex VI are unable to make a decision, in particular on SIDS; the decision to amend the phase 3 requirements for feeder ships with a 40% reduction rate means the smaller ships will be legislated out of business.

5.67 As requested, statements by the delegations of the Cook Islands and the observer from IACS are set out in annex 18.

5.68 The proposed mandatory reporting of EEDI values having received support from several delegations, the Committee agreed to them in principle, and invited further submissions to MEPC 74, commenting on draft amendments to MARPOL Annex VI concerning mandatory reporting of EEDI values, as set out in the annex to document MEPC 73/5/5.

5.69 The Committee considered document MEPC 73/5/9 (RINA), providing RINA's concerns that the EEDI framework was not well adapted to a number of alternative fuels and proven energy-saving technologies and was thus not crediting the use of such solutions as well as potentially hindering uptake. At the same time, the EEDI database under-reports the actual uptake of energy-saving technologies.

5.70 Following consideration, the Committee noted the concerns expressed in document MEPC 73/5/9 and invited interested Member Governments and international organizations to submit further comments to future sessions of the Committee.

Guidelines on survey and certification of the EEDI

5.71 The Committee considered document MEPC 73/5/7 (ITTC) proposing draft amendments to the *2014 Guidelines on survey and certification of the Energy Efficiency Design Index (EEDI)*, taking into account the 2017 update of the ITTC Recommended Procedure on the conduct of sea trials including wind speed profile, correction of waves from all directions, iterative method, roughness allowance and, most importantly, shallow water correction.

5.72 Following consideration, the Committee instructed the Working Group to finalize the draft amendments to the *2014 Guidelines on survey and certification of the Energy Efficiency Design Index (EEDI)*, using the annex to document MEPC 73/5/7 as a basis, with a view to adoption at this session.

ESTABLISHMENT OF THE WORKING GROUP ON AIR POLLUTION AND ENERGY EFFICIENCY

5.73 The Committee established the Working Group on Air Pollution and Energy Efficiency and instructed it, taking into account comments and decisions made in plenary, to:

- .1 consider the scope of application of the 2018 *Guidelines for the discharge of exhaust gas recirculation (EGR) bleed-off water* for EGRs that were already installed on existing ships and advise the Committee accordingly;
- .2 further develop the draft guidance on best practice for Member States/coastal States, using the annex to document MEPC 73/5/3 as a basis, with a view to finalization;
- .3 finalize the draft guidance on best practice for fuel oil suppliers, using the annex to document MEPC 73/5/4 as a basis;
- .4 if time permitted, further consider document MEPC 73/5/1, taking into account documents MEPC 73/5/13 and MEPC 73/5/16, and advise the Committee accordingly;

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- .5 finalize draft amendments to MARPOL Annex VI for the EEDI phase 3 requirements, using annex 3 to document MEPC 73/5/2 as a basis, with a view to approval at this session;
 - .6 review the draft amendments to the *2014 Guidelines on the method of calculation of the attained Energy Efficiency Design Index (EEDI) for new ships*, as set out in annex 4 of document MEPC 73/5/2, and advise the Committee accordingly;
 - .7 finalize the draft amendments to MARPOL Annex VI concerning EEDI regulations for ice-strengthened ships, using annex 5 of document MEPC 73/5/2 as a basis;
 - .8 finalize the draft amendments to the *2014 Guidelines on survey and certification of the Energy Efficiency Design Index (EEDI)*, using the annex to document MEPC 73/5/7 as a basis, with a view to adoption at this session;
 - .9 review document MEPC 73/6/1 and advise the Committee accordingly; and
 - .10 consider proposed unified interpretations in document MEPC 73/6/3 and advise the Committee accordingly.

REPORT OF THE WORKING GROUP

5.74 In considering the report of the Working Group (MEPC 73/WP.7), the following general comments were made:

- .1 the problem of available EEDI data will remain a concern if the obligation to present it is not established; the absence of EEDI data should not be an excuse for not taking appropriate decisions; it was agreed at MEPC 70 that amendments to phase 3 should be approved at MEPC 73;
- .2 decisions should be based on clear, scientific evidence and sufficient relevant data; the proposed amendments in annex 3 of document MEPC 73/WP.7 should be reviewed again at MEPC 74; irrespective of the actual level of ambition all kinds of shipping should bear their fair share of efforts and burden; a more elaborate categorization of ship size would be more appropriate especially if the start year for phase 3 is advanced, as proposed, to 2022;
- .3 mandatory provision of EEDI data is very important as the number of ships in the EEDI database for certain size segments is minimal making it a challenge to conclude; an incorrect decision could severely disadvantage SIDS which depend on small feeder ships; a higher threshold for the reduction rate for container ships should be further considered; disproportionate impacts on States should and must be taken into account; concerns are justified by the data and reflect the reality of the trade and ships engaged in it; and
- .4 no consensus has been achieved on the proposed draft amendments to regulation 21 of MARPOL Annex VI; there is a recognition of the importance of GHG emission reduction but it has to be clear that phase 3 of EEDI has significant implications on shipbuilding and the shipping industry and so there is a need to consider the decision carefully; the proposed 2022 timeline can still be achieved by approving amendments at MEPC 74 and adopting those amendments at MEPC 75.

5.75 As requested, the statement by the delegation of Antigua and Barbuda is set out in annex 18.

5.76 Having considered the general comments made and the relevant parts of the report of the Working Group (MEPC 73/WP.7), the Committee approved the report in general and took action as indicated below.

Scope of application of the 2018 Guidelines for the discharge of exhaust gas recirculation (EGR) bleed-off water for EGRs that are already installed on existing ships and advise the Committee accordingly

5.77 The Committee, having already adopted the *2018 Guidelines for the discharge of exhaust gas recirculation (EGR) bleed-off water*, concurred with the proposed revised text of paragraph 2.2 of the 2018 Guidelines, clarifying their scope of application (see paragraph 5.5).

Guidance on best practice for Member States/coastal States

5.78 The Committee noted the comments made and views expressed on the draft best practice for Member States/coastal States, and re-established the Correspondence Group, under the coordination of the United States,* and instructed it to:

- .1 finalize the draft guidance on best practice for Member States/coastal States, using the annex to document MEPC 73/5/3 as the basis, taking into account the comments made at MEPC 73 and annex 1 to document MEPC 73/WP.7, discussion at PPR 6 and the Intersessional Meeting on Consistent Implementation of Regulation 14.1.3 of MARPOL Annex VI (ISWG-AP 1); and
- .2 submit a final report to MEPC 74.

Guidance on best practice for fuel oil suppliers

5.79 The Committee approved MEPC.1/Circ.875/Add.1 on *Guidance on best practice for fuel oil suppliers for assuring the quality of fuel oil delivered to ships*.

Draft amendments to MARPOL Annex VI for the EEDI phase 3 requirements

5.80 The Committee noted the Group's discussion on the consideration of the proposed shaft power limitation and considered the approval of draft amendments to regulation 21 of MARPOL Annex VI as set out in annex 3 of the Group's report (MEPC 73/WP.7).

5.81 Some delegations expressed the view that the draft amendments to MARPOL Annex VI to strengthen EEDI phase 3 should be approved in principle for circulation at this session, requiring for containerships a start year of 2022 and a 40% reduction rate and also advancing the start year to 2022 for other ship types except bulk carrier, tanker and ro-ro cargo (vehicle carrier), ro-ro cargo ship and ro-ro passenger ship. Those delegations were also of the view that the proposal by the observer from the World Shipping Council (WSC) concerning a cascade of reduction rates for containerships could be further considered at MEPC 74 with a view to refining the draft amendments.

* **Coordinator:**
Mr. W. M. Lundy
Marine Safety, Security and Stewardship
Systems Engineering Division, U.S. Coast Guard
Tel.: +1 202 372-1379
Email: Wayne.M.Lundy@uscg.mil

5.82 Other delegations considered it would not be appropriate to approve the draft amendments to regulation 21 of MARPOL Annex VI as it was too premature, due to a lack of data, to make an informed decision based on due technical diligence, and so there was no clear justification for approving the draft amendments at this session, and that further consideration should be given to varying reduction rates for specific ship size segments.

5.83 Following consideration, the Committee decided not to approve at this session the draft amendments to regulation 21 of MARPOL Annex VI on reduction rates and the starting year for EEDI phase 3. Noting that the Correspondence Group could give further consideration to the matter, the Committee also invited concrete proposals to MEPC 74 for further consideration, with a view to approval at that session.

Correction factors for the calculation of the EEDI for ice-class ships

5.84 The Committee adopted resolution MEPC.308(73) on the *2018 Guidelines on the method of calculation of the attained Energy Efficiency Design Index (EEDI) for new ships*, as set out in annex 5.

Draft amendments to MARPOL Annex VI concerning EEDI regulations for ice-strengthened ships

5.85 The Committee approved draft amendments to regulations 2.42 and 19.3 of MARPOL Annex VI concerning EEDI regulations for ice-strengthened ships, as set out in annex 6 (see also paragraph 11.25), with a view to adoption at MEPC 74, and requested the Secretary-General to circulate them in accordance with MARPOL article 16(2).

5.86 In this regard, the Committee noted that the terms of reference in paragraphs 6.3, 6.5 and 6.6 of document MEPC 73/5/2 had been completed by the Correspondence Group on EEDI Review Beyond Phase 2.

Draft amendments to the 2014 Guidelines on survey and certification of the Energy Efficiency Design Index (EEDI)

5.87 The Committee adopted resolution MEPC.309(73) on the *Amendments to the 2014 Guidelines on survey and certification of the Energy Efficiency Design Index (EEDI)*, as set out in annex 7, and requested the Secretariat to issue a consolidated text as MEPC.1/Circ.855/Rev.2.

6 FURTHER TECHNICAL AND OPERATIONAL MEASURES FOR ENHANCING THE ENERGY EFFICIENCY OF INTERNATIONAL SHIPPING

6.1 The Committee recalled that MEPC 70 had adopted, by resolution MEPC.278(70), new regulation 22A of MARPOL Annex VI related to the data collection system for fuel oil consumption of ships, which had entered into force on 1 March 2018.

IMO Ship Fuel Oil Consumption Database

6.2 The Committee, having considered document MEPC 73/6 (Secretariat) providing information on the status of the IMO Ship Fuel Oil Consumption Database, noted that the Secretariat had updated the database to incorporate new communication features concerning a list of ships falling under the scope of regulation 22A of MARPOL Annex VI and the user guidance on the Ship Fuel Oil Consumption GIS module, which could be found on the IMO webpage.*

* <http://www.imo.org/en/OurWork/Environment/PollutionPrevention/AirPollution/Pages/Data-Collection-System.aspx>

6.3 The Committee, having noted that, as of 5 September 2018, 19 Administrations of Parties to MARPOL Annex VI had assigned a contact person on the database in order to submit their fuel oil consumption data and 11 recognized organizations out of 30 recognized organizations had contacted the Secretariat to enable their data submissions to the database, encouraged Administrations of Parties to MARPOL Annex VI to:

- .1 assign their "contact person"; and
- .2 request recognized organization(s) which had been authorized to submit fuel oil consumption data on their behalf to contact the Secretariat for setting up their web accounts for the database.

6.4 The Committee noted an intervention by the observer from IACS providing an update on the status of the submission of SEEMP part II and that some 19,000 relevant ships still needed to submit their SEEMP part II before the entry into effect date of 1 January 2019. In this regard, the Committee urged stakeholders concerned to submit their SEEMP part II to the Administration or its recognized organization by 31 December 2018.

6.5 As requested, the statement by the observer from IACS is set out in annex 18.

Sharing of lessons learned from the voluntary experience-building phase of the fuel oil consumption data collection system

6.6 The Committee considered document MEPC 73/6/1 (Singapore) providing lessons learned from Singapore's voluntary experience-building phase of the IMO data collection system for fuel oil consumption and proposing some actions for smooth implementation of the data collection system.

6.7 Following consideration, the Committee instructed the Working Group on Air Pollution and Energy Efficiency, established under agenda item 5, to further review document MEPC 73/6/1 and advise the Committee accordingly.

Unified interpretations of MARPOL Annex VI

6.8 The Committee considered document MEPC 73/6/3 (India and IACS) proposing unified interpretations for regulations 5.4.5, 22.2, 22.3, 22A.1, 22A.8 and appendix IX of MARPOL Annex VI on the issuance of the confirmation of compliance for new ships, boil-off gas consumed on board ships and access to the disaggregated data.

6.9 Following consideration, the Committee instructed the Working Group on Air Pollution and Energy Efficiency, established under agenda item 5, to consider those proposed unified interpretations and advise it accordingly.

Methodology for undertaking phase 2 (data analysis)

6.10 The Committee considered document MEPC 73/6/2 (IACS and OCIMF) proposing to commence the consideration of phase 2 (data analysis) of the three-step approach, in particular, how phase 2 could be conducted, the schedule for undertaking it and who should conduct this phase.

- 6.11 In the ensuing discussion, the following comments, inter alia, were made:
- .1 while supporting the proposal in general it is not agreed that all possible measures can only be adopted after data is analysed; and
 - .2 the document was submitted before the agreement of the Committee to the programme of follow-up actions for the Initial IMO Strategy on reduction of GHG emissions from ships that identifies three categories of measures including where data analysis is or is not necessarily required.
- 6.12 Following discussion, the Committee:
- .1 agreed, in principle, that a methodology for conducting the data analysis needed to be developed as a priority with a view to its approval by MEPC 75, to be in line with the timeline set out in paragraph 6.2 of the *Initial IMO Strategy on reduction of GHG emissions from ships* (resolution MEPC.304(72)); and
 - .2 invited interested Member Governments and international organizations to submit concrete proposals on such a methodology to MEPC 74.

Instructions to the Working Group on Air Pollution and Energy Efficiency

- 6.13 The Committee instructed the Working Group on Air Pollution and Energy Efficiency, established under agenda item 5, taking into account comments and decisions made in plenary, to:
- .1 review document MEPC 73/6/1 and advise the Committee accordingly; and
 - .2 consider proposed unified interpretations in document MEPC 73/6/3 and advise the Committee accordingly.

Report of the Working Group

6.14 Having considered the part of the report of the Working Group on Air Pollution and Energy Efficiency related to this agenda item (MEPC 73/WP.7, paragraphs 47 to 56 and annex 7), the Committee took action as indicated in the following paragraphs.

Sharing of lessons learned from the voluntary experience-building phase of the fuel oil consumption data collection system

6.15 The Committee noted the Group's discussion on document MEPC 73/6/1 (Singapore) on lessons learned from voluntary implementation of the fuel oil consumption data collection system and, in particular, that the Group had considered and agreed views on clarification on reporting "other" ship types, conversion factors for "other" fuel oil type, and disaggregated data report format and clerical errors in recording and reporting.

Unified interpretations of MARPOL Annex VI related to data collection system for fuel oil consumption of ships

6.16 The Committee approved unified interpretations of regulations 2.9, 5.4.5, 22.2, 22.3, 22A.1, 22A.8 and appendix IX of MARPOL Annex VI concerning confirmation of compliance for new ships, boil-off gas consumed on board ships and access to the disaggregated data, as set out in annex 8, and instructed the Secretariat to issue MEPC.1/Circ.795/Rev.3 on consolidated unified interpretations of MARPOL Annex VI.

7 REDUCTION OF GHG EMISSIONS FROM SHIPS

General

7.1 The Committee recalled that MEPC 72 had adopted resolution MEPC.304(72) on *Initial IMO Strategy on reduction of GHG emissions from ships* (the Initial Strategy).

7.2 The Committee noted that the fourth meeting of the Intersessional Working Group on Reduction of GHG Emissions from Ships (ISWG-GHG 4) had been held from 15 to 19 October 2018 and that its report had been submitted to the Committee as document MEPC 73/WP.5.

UNFCCC matters

7.3 The Committee noted the information provided by the Secretariat concerning the outcome of the United Nations Climate Change Conference held in Bonn, Germany, in April-May 2018. This included the forty-eighth session of the UNFCCC Subsidiary Body for Scientific and Technological Advice (SBSTA 48), which was retained as a body under the 2015 Paris Agreement and had on its agenda an item on "Emissions from fuel used for international aviation and maritime transport".

7.4 In this regard, the Committee noted a statement by the UNFCCC Secretariat, set out in annex 18, providing an update on UNFCCC matters, including a summary of the outcome of the UNFCCC Climate Change Conferences held in April-May in Bonn and in September in Bangkok (Thailand) and the priorities for COP 24 in Katowice (Poland), in light of the outcome of COP 21 in Paris and the implications for the work of the Organization on reducing GHG emissions from international maritime transport.

7.5 The Committee took note of the information provided and requested the Secretariat to continue its well-established cooperation with the UNFCCC Secretariat and its attendance at relevant UNFCCC meetings, and to continue to bring the outcome of the Organization's work to the attention of appropriate UNFCCC bodies and meetings. In this context, the Committee noted that information on the ongoing work of IMO would be provided to SBSTA 49, scheduled for 2 to 14 December 2018 in Katowice, Poland.

Reduction of GHG emissions from international shipping

Development of a programme of follow-up actions of the Initial IMO Strategy on reduction of GHG emissions from ships

7.6 The Committee noted that the Working Group on Reduction of GHG Emissions from Ships, at its fourth intersessional meeting, had developed a programme of follow-up actions of the Initial IMO Strategy on reduction of GHG emissions from ships.

7.7 In considering the report of the Group (MEPC 73/WP.5), the following comments were made:

- .1 the programme of follow-up actions of the Initial Strategy developed by the Group can be supported as a basis for further work; the international community is paying particular attention to the work of IMO to contribute to the reduction of GHG emissions and it is noted that from now on the Organization should undertake impact assessment prior to adoption of measures;

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- .2 the recent IPCC report appeals to us to tackle climate change and points out the need for a swift wide-ranging change; international maritime transport must also contribute to this change through implementation of the Initial Strategy; we note the progress made and there is a need to adopt as soon as possible measures to effectively reduce GHG emissions and there is support for the strengthening of EEDI and SEEMP and goals for energy efficiency indicators; it is also essential to minimize impacts on States and to avoid penalization of States that are far from their markets; the Fourth IMO GHG Study and data from the IMO ship fuel oil consumption data collection system will provide sound information and will therefore considerably contribute to ensuring effective implementation of measures;
 - .3 an enhanced spirit of cooperation characterized last week's meeting which established basic ground rules for the Organization; IMO is well on its way to contributing to global efforts to meet the temperature goals of the Paris Agreement;
 - .4 it is now time for the Organization to work for the swift implementation of the Initial Strategy in a realistic manner; this can only be done through agreeing a set of short-term measures that are realistic, robust, effective and quick to implement thus allowing a quick reduction in GHG emissions from ships; there is a need for further intersessional working groups and to establish other correspondence or technical groups to address the issue;
 - .5 the IPCC 1.5°C special report is clear in that there is a need to decarbonize all sectors as soon as possible and a need to progress Initial Strategy and achieve sizeable reductions in emissions prior to 2023; it is essential that the most vulnerable LDCs and SIDS are able to participate in the process of proposing, developing, adopting and implementing measures; however, these countries are facing limited resources and risk being disadvantaged;
 - .6 the report of ISWG-GHG 4 is welcomed and the draft programme of follow-up actions is an essential step in implementing the Initial Strategy;
 - .7 the finalization of the draft programme of follow-up actions strikes a balance among IMO Member States and this balance is a result of the adoption of the Initial Strategy;
 - .8 it is important that any impact assessment is done prior to the imposition of any measure and must reflect the particular and unique challenges faced by Pacific SIDS; a compensatory mechanism or another offset response remains to be discussed and needs to be discussed thoroughly and included in any candidate measure;
 - .9 this programme of follow-up actions represents a positive and progressive milestone in implementing the Initial Strategy;
 - .10 the programme of follow-up actions worked upon the fundamentals that have been agreed in the Initial Strategy; and
 - .11 ports could contribute to reducing GHG emissions from ships and there is support for developing an MEPC resolution to encourage port developments and activities to facilitate reduction of GHG emissions from ships; however, as IMO instruments mostly deal with ships, legal advice would be most appropriate

in that matter; and in this regard the matter falls under national action plans, and proposals should be encouraged for the exchange of best practices as well as the development of non-mandatory guidelines to assist States in their capacity to reduce emissions from ports.

7.8 As requested, the full text of statements made by the delegations of the Cook Islands, Solomon Islands and the United Arab Emirates are set out in annex 18.

7.9 The Committee approved the report of the fourth meeting of the Intersessional Working Group on Reduction of GHG Emissions from Ships in general and, in particular:

- .1 approved the *Programme of follow-up actions of the Initial IMO Strategy on reduction of GHG emissions from ships up to 2023*, as set out in annex 9;
- .2 invited concrete proposals on candidate short-term measures to MEPC 74, for consideration, noting the Group's discussion about short-term measures and their categorization;
- .3 invited concrete proposals on candidate mid-/long-term measures to MEPC 74 and MEPC 75, for consideration, noting the Group's discussion about mid-/long-term measures and action to address the identified barriers;
- .4 invited concrete proposals to MEPC 74 for finalization of the procedure for assessing the impacts on States, noting the discussion on impacts on States;
- .5 noted the Group's view that there was a potential for early action especially focusing on existing instruments EEDI and SEEMP;
- .6 noted the proposal by the delegation of Canada to work with the delegation of the International Association of Ports and Harbors (IAPH) and other interested delegations to submit to MEPC 74 a draft resolution on encouragement of port developments and activities to facilitate the reduction of GHG emissions from ships;
- .7 noted the Group's discussion on criteria to evaluate the viability of a measure; and
- .8 approved the holding of an intersessional meeting before MEPC 74 and that the meeting be permitted to consider concrete proposals for candidate measures and the procedure for assessing impacts on States submitted to MEPC 74.

7.10 The Committee noted that in view of the heavy workload arising from the follow-up actions, it was important that enhanced support be provided in terms of working arrangements to progress the follow-up actions.

7.11 Having noted the lack of concrete proposals on the matter, the Committee instructed the working group to be established at this session to further consider this matter and invited Member States to submit concrete proposals to MEPC 74 so that an informed decision or recommendation could be reached at that session.

Documents providing information on candidate measures

7.12 The Committee considered the following documents providing information on candidate measures:

- .1 MEPC 73/7/2 (CESA and EUROMOT), containing proposed definitions and considerations to promote the timely introduction of alternative fuels, such as low-carbon, zero-carbon and fossil-free fuels into shipping;
- .2 MEPC 73/7/3 (CESA), containing proposals to further promote the timely uptake of technology with a focus on energy saving potentials for existing ships;
- .3 MEPC 73/7/6 (Greenpeace International et al.), identifying that implementing short-term measures, including accelerating the pace of newbuild technical efficiency standards and speed optimization, would improve the probability of reducing international shipping's total annual GHG emissions by at least 50% by 2050 compared to 2008;
- .4 MEPC 73/INF.27 (Greenpeace International et al.), summarizing the key findings of an International Council on Clean Transportation (ICCT) working paper titled *Relating short-term measures to IMO's minimum 2050 emissions reduction target*; and
- .5 MEPC 73/INF.30 (Secretariat), identifying two Ship and Port Emissions Toolkits that were developed within the framework of the GEF-UNDP-IMO GloMEEP Project and in collaboration with IMarEST and IAPH; in particular the Ship Emissions Toolkit comprising three guides: Guide No.1: Rapid assessment of ship emissions in the national context; Guide No. 2: Incorporation of MARPOL Annex VI into national law and Guide No.3: Development of a national ship emissions reduction strategy.

7.13 In the ensuing discussion, the following comments, inter alia, were made:

- .1 mandatory speed reduction cannot be supported since they may lead to a shortage of transport services and penalize developing countries; the issue of minimum power requirements must be resolved before progressing on strengthening EEDI and SEEMP; concerned about mandatory goal-setting;
- .2 the tools developed under the GloMEEP project provide an excellent support; it is noted in general that the technical projects are very timely given the recent adoption of the Initial Strategy; a second stage of the GloMEEP project is supported; and
- .3 projects such as GloMEEP would be beneficial to Member States in transferring knowledge and experience and the continuation of the project is highly supported.

7.14 The Committee noted the information contained in the above-mentioned documents and invited Member States and international organizations to take them into account when preparing submissions to MEPC 74.

Preparation for the Fourth IMO GHG Study

7.15 The Committee recalled that the road map approved by MEPC 70 contained a list of activities (MEPC 70/18/Add.1, annex 11), including further IMO GHG studies and, in particular, the Fourth IMO GHG Study, using data from 2012 to 2018, to be initiated at MEPC 74 (May 2019).

7.16 In this context, the Committee had for its consideration the following documents:

- .1 MEPC 73/7 (Secretariat), providing information on the preparation for the Fourth IMO GHG Study expected to be initiated by MEPC 74, including an indicative outline and the timeline of the Fourth IMO GHG Study; inviting the Committee to initiate the development of the terms of reference for the Fourth IMO GHG Study; and inviting Member Governments and international organizations to make financial contributions to enable the work to be undertaken;
- .2 MEPC 73/7/7 (China), providing comments on document MEPC 73/7 and suggesting in particular that the terms of reference for the study should include clarifications on the methodology for scenario development and the use of results; estimates of carbon intensity of international shipping, in EEOI and/or others, together with proposals for approaches to assess shipping carbon intensity based on Data Collection System (DCS) data; and marine carbon intensity estimate for the baseline year 2008;
- .3 MEPC 73/7/8 (Australia et al.), providing comments on document MEPC 73/7; expressing concern that several elements included in document MEPC 73/7 could prejudice policy decisions that had not been taken by the Committee and that an inventory study might not be the appropriate place to consider policy issues; and suggesting that the inherent sources of uncertainties be specified, that the purpose of a review of the methodology be clarified, that the need to take fully into account the application of EEDI and other industry measures relates to forecasting be clarified, that the reference to "estimates of emissions from ships based on different development status" be removed, that the definition of transport work be aligned with the definition used in the data collection study, and that the item on impacts on States be removed;
- .4 MEPC 73/7/9 (BIMCO), stating that solid projections of future emissions from international shipping was dependent on three aspects: firstly, a comprehensive and full set of data for historic global seaborne trade; secondly, acceptable assumptions on global GDP growth for future years to project the trade data to future years; and thirdly, a robust model for future fleet development, productivity and speed to convert future trade data to future emissions; and stressing that all three elements must be trustworthy to produce solid results; and that this should be reflected in the terms of reference for the Fourth IMO GHG Study;
- .5 MEPC 73/7/10 (Argentina et al.), providing comments on document MEPC 73/7 on preparation for the Fourth IMO GHG Study with regard to work distribution and timelines, and suggesting, in particular, that an expert workshop be held to make recommendations to be reflected in the terms of reference of the Study; that MEPC establish a steering committee to supervise the work of the contractor; and that preliminary versions of the Study be subject to a peer review process involving a wide range of academic and research organizations to ensure ownership of the process by Member States and consistency with approaches and practices by other organizations, including IPCC; and

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- .6 MEPC 73/7/11 (Argentina et al.), providing detailed comments on the draft indicative outline of the Fourth IMO GHG Study contained in the annex to document MEPC 73/7 with regard to inventory of GHG emissions from international shipping 2012-2018; scenarios for future shipping emissions 2018-2050; the nine elements of methods and data that the Study could take into account when developing future scenarios that affect emissions from international shipping; and the scope of the Study.

7.17 In the ensuing discussion, the following comments, inter alia, were made:

- .1 the Fourth IMO GHG Study will address important issues; the scope of this Study should be much broader than for other studies and time constraints should not jeopardize the work; an expert workshop should be held; a steering committee should be established; a peer review process would give confidence in the results of the Study;
- .2 initiation of the Study is strongly supported and should include the concerns raised in document MEPC 73/7/8; estimation of carbon intensity is supported; the peer review process is not supported;
- .3 the Fourth IMO GHG Study will be an important decision-making aid; the Study should be an inventory of GHG emissions but not a policy decision-making document; the Study should be based on appropriate data and forecasts for economic growth; peer review is a standard process for scientific process and is therefore supported;
- .4 the timelines proposed in document MEPC 73/7 and the use of the draft outline as a base document are supported; the Study should be a helpful input for future evidence-based decision-making by the Committee but should not prejudge future policy decisions; it should identify estimates of carbon intensity consistent with the methodology of the IMO data collection system;
- .5 the main objective of the Study should be to carry out an emissions inventory; additional items may delay the timely publication of the Study; other studies could be initiated in parallel; the Study should only focus on the most realistic scenarios to avoid confusion; having a steering committee would mean a peer review is not needed, and inclusion of a peer review in the process would substantially delay the publication of the Study;
- .6 taking stock of current emissions is essential; document MEPC 73/7 can be used as a basis for work; it is suggested that the 2008 baseline be recalculated both in absolute terms and in carbon intensity terms according to the different existing metrics; it is important to have the results of the Study at MEPC 76 as indicated in the initial timelines; the steering committee should be able to perform the duties of a peer review group; inclusion of cost of transport and impacts on States is not supported; it is worthwhile to have scenario data by route but reference to level of development is not supported;
- .7 this Study might contain some uncertainties; however, they can be reduced to a minimum; the organization of a peer review process cannot be supported;
- .8 the Study will be instrumental in considering some of the candidate short-term measures; document MEPC 73/7 provides a good basis for the development of terms of reference for the Study; route-based quantification of CO₂ emissions

- should not be included in the scope of the Study; calculation of 2008 baselines is supported; establishment of an expert group is supported and the steering committee should be established in a manner similar to the Third IMO GHG Study 2014 and cannot be limited to eight members as proposed in document MEPC 73/7/11;
- .9 IPCC made the case that to achieve the 1.5°C temperature goal all GHGs have to be eliminated, including black carbon; it is supported to include black carbon in the scope of the Fourth IMO GHG Study;
- .10 addressing uncertainties is in the interest of all Member States; establishment of a steering committee is essential;
- .11 maritime carbon intensity estimates for 2008 should be updated; a peer review is supported;
- .12 this Study is particularly important as it will inform many decisions and so it is necessary to have innovative ideas as the Study is related to many issues;
- .13 a continuous update of data is needed with reduced uncertainties if possible; the scope of the Study has to be broader; the Study has to be independent, impartial and objective and for that the academic engagement has to be encouraged; a peer review is our insurance policy in case there is no broad engagement;
- .14 document MEPC 73/7 should serve as the basis; it is essential to take into account the levels of ambition and guiding principles of the Initial Strategy; uncertainties need to be addressed to have a valid outcome; the composition of the steering committee should be similar to the one of the Third IMO GHG Study 2014, be balanced with co-chairs and not be confined to eight members to ensure due representation of Member States; and
- .15 transport costs and the impacts on States should be included in the scope of the Study.
- 7.18 Following discussion, the Committee:
- .1 approved, in principle, and referred the indicative outline and the timeline of the Fourth IMO GHG Study for further consideration by the Working Group;
- .2 instructed the Working Group to initiate the development of the terms of reference of the Fourth IMO GHG Study, taking into account the indicative outline and the timeline, as well as documents MEPC 73/7/7, MEPC 73/7/8, MEPC 73/7/9, MEPC 73/7/10 and MEPC 73/7/11, with a view to approval by MEPC 74; and
- .3 invited Member Governments and international organizations to make financial contributions to enable the work to be undertaken.

Port developments and activities facilitating the reduction of GHG emissions from ships

7.19 In regard to the matter of port developments and activities facilitating the reduction of GHG emissions from ships, the Committee had for its consideration the following documents:

- .1 MEPC 73/7/1 (Canada), seeking to raise awareness and interest in an initiative led by Canada's Vancouver Fraser Port Authority to advance international collaboration on environmental incentive programmes for ships; and proposing a collaborative initiative to develop a common web-based platform that makes it easier for marine carriers to access environmental incentive programmes and makes it easier for ports to offer incentives;
- .2 MEPC 73/7/5 (IAPH), containing a summary overview of the main actions taken by ports to facilitate the reduction of GHG emissions from shipping, including the provision of onshore power supply from renewable sources, infrastructure to support the supply of alternative low-carbon and zero-carbon fuels, incentive schemes for green ships, ship speed reduction and port call optimization, as ports' contribution to the follow-up actions to the *Initial IMO Strategy on reduction of GHG emissions from ships*;
- .3 MEPC 73/INF.29/Rev.1 (FOEI), outlining the benefits associated with vessel shore power and progress globally with respect to its installation; and
- .4 MEPC 73/INF.30 (Secretariat), informing the Committee of the two recently finalized Ship and Port Emissions Toolkits that were developed within the framework of the GEF-UNDP-IMO GloMEEP Project and in collaboration with IMarEST and IAPH; in particular the Port Emissions Toolkit comprising two guides: one on assessment of port emissions and one on development of port emissions reduction strategies.

7.20 In the ensuing discussion, the following comments, inter alia, were made:

- .1 a continuation of the GloMEEP project is supported, and in particular, the development of the Ships and Ports Emissions Toolkits is noted and that workshops held under the auspices of GloMEEP have significantly helped to raise awareness, to the extent that emissions from ships are being reflected in national policy and emissions reduction strategy; and
- .2 the proposal to prepare a draft resolution is supported but should not deflect from other actions to be taken by the Organization to address GHG emissions from ships, and a reference to onshore power supply in the draft resolution should be associated with renewable energy sources.

7.21 Following discussion, the Committee:

- .1 welcomed the work related to reducing emissions from ports undertaken under the GloMEEP project and by IAPH;
- .2 encouraged ports intending to develop their air pollutant and/or GHG emissions assessments and emissions reduction strategy to use relevant guides developed by the GloMEEP project; and
- .3 invited Member Governments and international organizations to work with Canada and IAPH on the draft MEPC resolution on encouragement of port developments and activities to facilitate the reduction of GHG emissions from ships, for submission to MEPC 74.

Voluntary multi-donor trust fund to sustain IMO's technical cooperation and capacity-building activities supporting the implementation of the Initial Strategy

7.22 The Committee considered document MEPC 73/7/4 (Cambodia et al.) providing an update on the activities of the Global MTCC Network (GMN); identifying that a long-term funding strategy to support its global institutional framework was essential; inviting the Committee to establish a dedicated voluntary multi-donor trust fund to sustain the activities of GMN with a view to supporting the implementation of the Initial IMO Strategy on reduction of GHG emissions from ships; and encouraging IMO Member States, especially developed States, as well as various bilateral and multilateral donors, to mobilize resources for this purpose.

7.23 In the ensuing discussion, the following comments, inter alia, were made:

- .1 further technical assistance is supported and the sustainability of GMN should be addressed;
- .2 GMN has a crucial role in implementing the UN Sustainable Development Goals and the Initial Strategy; the GloMEEP project also provides important support to vulnerable States; a multi-donor trust fund could ensure GMN sustainability in a pragmatic way keeping the holistic aspect of the Strategy; the Secretariat is encouraged to develop the terms of reference for such a fund, for consideration by MEPC 74;
- .3 MTCC Caribbean is supporting 16 Caribbean States; reporting fuel consumption is a first step in improving energy efficiency of shipping and the MTCC Caribbean pilot project is supporting effective implementation of IMO regulations;
- .4 there is currently work being carried out by the Council to streamline the trust funds of the Organization and the establishment of a separate fund would need to be clarified;
- .5 the multi-donor trust fund may not be the most appropriate funding mechanism and so the Committee may wish to review the existing mechanisms and make a recommendation to the Council;
- .6 a gap analysis of the needs for new MTCCs should be undertaken;
- .7 the need for sustained funding is fully supported, however, there is a need to further discuss the mechanisms by which we support the training centres;
- .8 this is a timely proposal closely related to the stream of activity on capacity-building, technical cooperation, research and development identified in the programme of follow-up actions approved by the Committee;
- .9 establishment of a fund to sustain capacity-building activities to implement the Initial Strategy is supported;
- .10 the existence of GMN and its continuation can play a prominent role in implementing the guiding principles of the Initial Strategy and the Secretariat should be requested to prepare draft terms of reference for the proposed multi-donor trust fund;

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- .11 it is too early to approve in general at this stage the proposed multi-donor trust fund; more information is required;
 - .12 MTCC Pacific is supporting the region in raising awareness and organizing workshops; therefore, funding should be secured beyond 2019; and
 - .13 the proposal is in line with resolution MEPC.229(65) and so is supported.

7.24 The Committee agreed, in principle, on the need to establish a voluntary multi-donor trust fund to sustain the Organization's technical cooperation and capacity-building activities to support the implementation of the Initial Strategy, and requested the Secretariat, noting the ongoing work by the Council and taking into account comments made, to determine the most appropriate mechanism for the establishment of a such a fund and to prepare draft terms of reference, for consideration, by MEPC 74.

Establishment of the Working Group on Reduction of GHG Emissions from Ships

7.25 The Committee established the Working Group on Reduction of GHG Emissions from Ships, and instructed it, taking into account the comments and decisions made in plenary, to:

- .1 initiate the development of the draft terms of reference of the Fourth IMO GHG Study with a view to approval at MEPC 74, taking into account documents MEPC 73/7, MEPC 73/7/7, MEPC 73/7/8, MEPC 73/7/9, MEPC 73/7/10 and MEPC 73/7/11;
- .2 prepare draft terms of reference for the fifth meeting of the Intersessional Working Group on Reduction of GHG Emissions from Ships, taking into account document MEPC 73/WP.5;
- .3 consider the appropriate future working arrangements for the Group; and
- .4 time permitting, initiate the development of an impact assessment procedure.

Report of the Working Group on Reduction of GHG Emissions from Ships

7.26 Having considered the report of the Working Group on Reduction of GHG Emissions from Ships (MEPC 73/WP.8), the Committee approved it in general and took action as outlined below.

7.27 The Committee, noting a comment made by the observer from Cruise Lines International Association (CLIA), invited interested Member States and international organizations to submit concrete proposals on proxies for transport work for ship types that did not carry cargo to MEPC 74 under agenda item 6 "Further technical and operational measures for enhancing the energy efficiency of international shipping".

Initiation of the development of the draft terms of reference of the Fourth IMO GHG Study

7.28 The Committee noted the Group's views related to work distribution, timelines and scope of the Fourth IMO GHG Study to be initiated at MEPC 74 and approved at MEPC 76.

7.29 In this regard, the Committee agreed to the holding of an expert workshop in preparation for the Fourth IMO GHG Study before MEPC 74, and requested the Secretariat to organize the workshop, preferably in March 2019.

7.30 The Committee concurred with the Group's view that the terms of reference of the steering committee to be finalized at MEPC 74 and the call for nominations of its members should be in line with the practice followed for the Third IMO GHG Study 2014.

7.31 The Committee noted the Group's support for the integration of a feedback mechanism in the process of the Fourth IMO GHG Study and the Group's view that this feedback mechanism would require further consideration and development.

7.32 The Committee noted the progress made by the Group in developing the draft terms of reference for the Fourth IMO GHG Study as set out in annex 1 of document MEPC 73/WP.8 and further noted that some technical and methodological issues would require the advice of the expert workshop before finalization.

7.33 In this connection, the delegation of the Russian Federation, noting that black carbon was under consideration by the PPR Sub-Committee as part of the agenda item on the impact on the Arctic of emissions of black carbon from international shipping, did not support the inclusion of estimates of black carbon emissions in the scope of the Fourth IMO GHG Study, as it would use up resources and the Initial Strategy made no reference to black carbon, which was not a greenhouse gas.

7.34 The Committee noted that the draft terms of reference for the Fourth IMO GHG Study remained to be finalized and the question of whether to include estimates of black carbon emissions would be further considered by the expert workshop.

Terms of reference for the fifth meeting of the Intersessional Working Group on Reduction of GHG Emissions from Ships (ISWG-GHG 5)

7.35 The Committee agreed to the holding of the fifth meeting of the Intersessional Working Group on Reduction of GHG Emissions from Ships, subject to endorsement by C 121, noting the Group's preferred dates for this meeting being 7 to 10 May 2019, with the following terms of reference:

"The Intersessional Working Group on Reduction of GHG Emissions from Ships is instructed, taking into account the *Initial IMO Strategy on reduction of GHG emissions from ships* and its programme of follow-up actions up to 2023, to:

- .1 consider concrete proposals for assessing the impacts on States with a view to the finalization of the procedure, noting the discussion at ISWG-GHG 4 on impacts on States;
- .2 finalize the draft terms of reference for the Fourth IMO GHG Study with a view to approval at MEPC 74;
- .3 consider concrete proposals on candidate short-term measures, noting the discussion at ISWG-GHG 4 about short-term measures and their categorization;
- .4 consider concrete proposals on candidate mid-/long-term measures, noting the discussion at ISWG-GHG 4 about mid-/long-term measures and action to address the identified barriers;
- .5 initiate the development of further actions on capacity-building, technical cooperation, research and development, including support for assessment of impacts and support for implementation of measures; and

- .6 submit an oral status report to MEPC 74 on Monday, 13 May 2019 and a written report in conjunction with the report of the working group to be established at MEPC 74."

Consideration of the appropriate future working arrangements for the Group

7.36 The Committee noted the Group's discussion and suggestion on appropriate future working arrangements to support the expected heavy workload arising from the follow-up actions of the Initial Strategy.

Development of an impact assessment procedure

7.37 The Committee noted the Group's discussion on initiation of the development of an impact assessment procedure and requested the Secretariat to submit an information document to MEPC 74 outlining existing IMO procedures relevant for impact assessments.

8 DEVELOPMENT OF AN ACTION PLAN TO ADDRESS MARINE PLASTIC LITTER FROM SHIPS

8.1 The Committee recalled that A 30 had recognized the ongoing problem of marine plastic pollution, as addressed in MARPOL Annex V, which required further consideration as part of a global solution within the framework of ocean governance, in pursuance of the target of Sustainable Development Goal 14 (UN 2030 Agenda for Sustainable Development) to prevent and significantly reduce marine pollution of all kinds by 2025. The Committee also recalled that A 30 had referred document A 30/11/1 (Australia et al.), together with the comments made in plenary, to MEPC 72 and LC 40/LP13 for detailed consideration and action as deemed necessary.

8.2 The Committee further recalled that MEPC 72, having considered documents MEPC 72/15 and Corr.1 (Iceland et al.), MEPC 72/15/2 (FAO) and A 30/11/1, had agreed to include a new output – "Development of an action plan to address marine plastic litter from ships" – in the 2018-2019 biennial agenda of MEPC, assigning the PPR Sub-Committee as the associated organ, with a target completion year of 2020, and had included the new output in the agenda of MEPC 73.

8.3 It was noted that III 5 had invited the Committee to consider document III 5/3 under this agenda item as it provided a summary of reports on alleged inadequacy of port reception facilities for 2017 and was related to the analysis presented in the annex to document MEPC 73/8/5 (India). The Committee also had for its consideration the following documents:

- .1 MEPC 73/8 (Secretariat), providing a summary of IMO work on addressing marine plastic litter, as requested by MEPC 72;
- .2 MEPC 73/8/1 (Indonesia), proposing the following:
 - .1 establishment of a database to store details on the state of marine plastic litter;
 - .2 development of a detailed timeframe for achieving the 2020 completion year target of the output on development of an action plan to address marine plastic litter from ships; and
 - .3 elements to be considered for inclusion in a draft action plan;

- .3 MEPC 73/INF.9 (Indonesia), providing information on Indonesia's Plan of Action on Marine Plastic Debris 2017-2025 and the Marine Debris Hotspots Rapid Assessment Exercise;
- .4 MEPC 73/8/2 (Chile et al.), proposing the following:
 - .1 a draft action plan to address marine plastic litter from ships, including a timeline for the development of the proposed work while underscoring the need for the Committee to agree on some guiding principles;
 - .2 that the Committee establish a working group at this session and any relevant correspondence groups to assist PPR 6 and any other relevant Sub-Committee with the immediate work relating to the output on marine plastic litter under a dedicated agenda item; and
 - .3 that the Committee consider establishing a correspondence group to progress the work intersessionally.
- .5 MEPC 73/8/3 (Austria et al.), proposing a list of elements for inclusion in the action plan on marine plastic litter from ships and a list of actions to be coordinated at the international level as part of a programme to address marine plastic litter from ships;
- .6 MEPC 73/8/4 (New Zealand), commenting on document MEPC 73/8/2, supporting further detailed consideration of all proposals in that document and specifically supporting the inclusion in the action plan of the proposals regarding:
 - .1 amendments to MARPOL Annex V (i.e. lowering the gross tonnage threshold for a Garbage Record Book to 100 GT, introducing a requirement for States to submit lost fishing gear reports to IMO, and introducing a requirement for marking of fishing gear);
 - .2 the role of port State control MoUs in promoting the compliance of ships and fishing vessels with applicable garbage discharge requirements;
 - .3 measures to address the loss of containers; and
 - .4 measures to ensure appropriate seafarer training and knowledge of MARPOL Annex V and the environmental impact of plastic;
- .7 MEPC 73/8/5 (India), proposing a list of elements for inclusion in the action plan on addressing marine plastic litter from ships and providing, as an annex, an analysis of the data available in GISIS on alleged inadequacies of port reception facilities;
- .8 MEPC 73/8/6 (FAO), providing the following:
 - .1 information relevant to the development of an action plan to address marine plastic litter from ships, in particular relating to the work of FAO on fishing vessels, abandoned, lost or otherwise discarded fishing gear (ALDFG) and microplastics;

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- .2 complementary information to that contained in document MEPC 73/8; and
 - .3 comments on ways that FAO could contribute to some of the proposals in document MEPC 73/8/2;
 - .9 MEPC 73/8/7 (FOEI et al.), providing information on the environmental impact of drifting fish aggregating devices (dFADs) and their contribution to marine plastic litter; commenting on the application of MARPOL Annex V to dFADs; and proposing measures applicable to dFADs to be considered for inclusion in the action plan to address marine plastic litter from ships;
 - .10 MEPC 73/8/8 (ICS et al.), commenting on documents MEPC 73/8 and MEPC 73/8/2, particularly in regard to the importance of port reception facilities to the capacity of ships to comply with the discharge requirements of MARPOL Annex V, and proposing that the action plan to address marine plastic litter from ships should be implemented with a shared responsibility ashore as well as on board;
 - .11 MEPC 73/8/9 (Russian Federation), providing comments on the proposals in document MEPC 73/8/2, particularly the proposals relating to ALDFG, the study on marine plastic litter from ships, and the discharge of grey water from ships;
 - .12 MEPC 73/8/10 (FOEI et al.), commenting on document MEPC 73/8/2 and providing supplementary proposals in relation to grey water, port waste reception facilities, education and awareness, and the introduction of an onboard plastics carriage and disposal register;
 - .13 MEPC 73/8/11 (BIMCO and WSC), providing considerations regarding the proposal in document MEPC 73/8/2 to address the loss of containers at sea in the action plan to address marine plastic litter from ships, and recommending that the Committee consider the development of a mandatory reporting system for containers lost at sea; and
 - .14 MEPC 73/INF.25 (OSPAR), providing information on the OSPAR Commission's work on marine litter and the OSPAR Regional Plan on Marine Litter.

8.4 In the ensuing discussion, the Committee noted support for the establishment of a working group to further consider the proposals submitted to this session, with a view to developing a robust, outcomes-focused and measurable action plan to address marine plastic litter from ships. With regard to the form of the action plan, the Committee noted comments suggesting that it should be clear in its objectives and scope, identify key partnerships, identify the various outcomes needed to achieve the objectives of the plan, set out measures to achieve the objectives of the plan, set clear timelines, and provide a review and evaluation mechanism.

8.5 There was general support for IMO playing a leading role in further action to reduce marine plastic litter from ships. In relation to fishing vessels, there was agreement that the Organization should work closely with FAO in order to maximize the effectiveness of any measures addressing fishing vessels and/or fishing gear in relation to marine plastic litter and minimize duplication of effort.

8.6 Concerning international cooperation, the Committee noted the importance of IMO working with other organizations that were undertaking work on marine plastic litter. In this context the Committee was informed that, at the United Nations Environment Assembly in 2017, it was

agreed to end all discharge of plastic and microplastics into the ocean and that strengthened regulations on the transboundary movement of plastic would be discussed in 2019 at the Conference of the Parties to the Basel Convention.

8.7 The Committee also noted general support for a study on marine plastic litter from ships, in association with GESAMP if appropriate, to better understand the contribution of ships to marine plastic litter. In this regard, the Committee noted the view that baseline studies would allow the Committee to measure the success of the action plan over time but should not delay commitment to action and implementation of the plan. Similarly, the development of a regulatory framework matrix was supported.

8.8 In relation to the proposed study on marine plastic litter, the Committee, having noted that financial support would be required in order for such a study to be conducted, invited financial contributions in pursuance of the study.

8.9 Concerning other proposals contained in the documents submitted to this session, the Committee noted comments from several delegations highlighting the proposed measures that were considered important for inclusion in an action plan to address marine plastic litter from ships. In general, this included the need for further discussions on the issue of microplastics entering the marine environment via grey water; enhancing the use and regulation of reception facilities; the need to consider enhancing the enforcement of fishing vessels in relation to MARPOL Annex V; and how to address the issue of containers lost at sea. The Committee also noted that intersessional work might be required to progress this issue in a timely manner.

8.10 Having noted the broad support for the establishment of a working group, the Committee agreed to refer all of the proposals and comments that had been put forward under this agenda item to the Working Group on Marine Plastic Litter for detailed consideration.

Establishment of a working group

8.11 The Committee established the Working Group on Marine Plastic Litter and instructed it, taking into account all of the documents submitted under this agenda item (MEPC 73/8, MEPC 73/8/1, MEPC 73/8/2, MEPC 73/8/3, MEPC 73/8/4, MEPC 73/8/5, MEPC 73/8/6, MEPC 73/8/7, MEPC 73/8/8, MEPC 73/8/9, MEPC 73/8/10, MEPC 73/8/11, III 5/3, MEPC 73/INF.9 and MEPC 73/INF.25), as well as the comments and decisions made in plenary, to:

- .1 prepare a draft action plan to address marine plastic litter from ships, together with an associated draft MEPC resolution, for consideration by the Committee, with a view to adoption at this session;
- .2 develop the draft scope of work for the PPR Sub-Committee and any other Sub-Committees that would be requested to carry out follow-on work emanating from the action plan; and
- .3 consider whether it was necessary for a correspondence group to be established and, if so, prepare the terms of reference for consideration by the Committee.

Report of the Working Group on Marine Plastic Litter

8.12 Having considered the report of the Working Group on Marine Plastic Litter (MEPC 73/WP.9), the Committee approved it in general and took action as outlined in paragraphs 8.13 to 8.28.

Adoption of the Action Plan to address marine plastic litter from ships

8.13 The Committee noted the progress made by the Group in developing the draft Action Plan to address marine plastic litter from ships and the associated draft MEPC resolution (MEPC 73/WP.9, annex), and also noted that the draft Action Plan included a section on review and evaluation.

8.14 The Committee further noted that owing to time constraints the Group had not been able to prepare a scope of work for the PPR Sub-Committee and instead had identified priority measures within the draft Action Plan that could be progressed upon its adoption.

8.15 In this connection, the Committee noted the following comments:

- .1 the draft Action Plan encompassed a large amount of work and it was not clear how the work would be progressed;
- .2 avoiding duplication of effort and avoiding overlap with work carried out by other international organizations was important;
- .3 for the PPR Sub-Committee to undertake work that might be requested of it by the Committee, the inclusion of a dedicated item in the agenda of the Sub-Committee would be required in accordance with the Committees' Method of work (MSC-MEPC.1/Circ.5/Rev.1);
- .4 the expectation that there were no cost implications to the maritime industry nor any additional administrative burdens, which was based on the analysis of the proposal in document MEPC 72/15 to include an output on development of an action plan to address marine plastic litter from ships, was potentially no longer accurate in relation to individual measures that could be developed under the Action Plan and, hence, a review of potential cost implications and administrative burdens would be beneficial following the adoption of the Action Plan;
- .5 the proposed completion date of the of the Action Plan (i.e. 2025) and the target completion year of the corresponding output, which had been agreed as 2020 at MEPC 72, would have to be aligned to make sure that there was timely progress on potential actions;
- .6 before instructing any sub-committee to undertake work emanating from the Action Plan, if adopted, further proposals should be submitted to MEPC 74 with a view to the Committee reviewing and refining the actions that had been included in the Action Plan and ensuring that the relevant sub-committees would be efficient and effective in completing work that was requested of them;
- .7 consideration of grey water from ships should not be a priority of the proposed study and work should focus on addressing plastics in the context of MARPOL Annex V, particularly marine plastic litter originating from fishing vessels; and
- .8 marine plastic litter was a large-scale problem requiring political will and a wide, concerted response by all stakeholders (Member States and international organizations alike) in order to make progress.

8.16 The delegation of Finland made a statement with regard to the proposed inclusion in MARPOL Annex V of an obligation for ships to deliver their garbage to a port reception facility (MEPC 73/8/3, paragraphs 20 and 24.5) and the Group's decision not to include a corresponding measure in the draft Action Plan. As requested, the full text of the statement made by the delegation is set out in annex 18.

8.17 Having taken into account the comments above, the Committee agreed that, were the Action Plan to be adopted at this session, no work would be requested of sub-committees at this stage. As a next step, the Committee agreed that the measures in the Action Plan would be reviewed at MEPC 74 based on follow-up proposals and commenting documents by interested Member States and international organizations. It was also agreed that following such a review, the Committee would instruct the PPR Sub-Committee or other sub-committees, as appropriate, to undertake work only on actions for which a well-defined scope of work had been developed.

8.18 With regard to aligning the target completion year of 2025 indicated in the draft Action Plan with the target completion year of 2020 for output 4.3, which the Group had recommended be renamed to "Follow-up work emanating from the Action Plan to address marine plastic litter from ships", the Committee agreed to further consider the matter at MEPC 74, having noted that the target completion year of the output could be extended or the status of the output could be converted to "annual" when the Committee developed its biennial agenda for the 2020-2021 biennium.

8.19 Following consideration of the draft MEPC resolution, the Committee agreed to replace the text of the second operative paragraphs with the following: "NOTES the application of the Action Plan to all ships, including fishing vessels;".

8.20 Subsequently, the Committee adopted resolution MEPC.310(73) on *Action Plan to address marine plastic litter from ships*, as set out in annex 10.

Renaming of the output

8.21 Having agreed to change the title of output 4.3 from "Development of an action plan to address marine plastic litter from ships" to "Follow-up work emanating from the Action Plan to address marine plastic litter from ships", the Committee invited proposals on the measures contained within the Action Plan to MEPC 74 (see also paragraphs 8.17 and 8.18).

Terms of reference for a correspondence group on marine plastic litter from ships

8.22 The Committee considered the recommendation of the Group to establish a correspondence group to continue work intersessionally on the issue of marine plastic litter from ships, and agreed to establish the Correspondence Group on Marine Plastic Litter from Ships, under the coordination of the United Kingdom,¹ with the following terms of reference:

- .1 identify issues to be considered under an IMO study on marine plastic litter from ships;

¹ **Coordinator:**
Ms. L. Weller
Senior Environmental Policy Lead
Maritime & Coastguard Agency
Tel: +44 (0)203 817 2448
Email: Lorraine.Weller@mcga.gov.uk

- .2 determine the most appropriate mechanism to undertake the study, in particular whether a literature review and/or a quantitative study should be pursued;
- .3 develop a regulatory framework matrix which identifies all international regulatory instruments and best practices associated with the issue of marine plastic litter from ships; and
- .4 submit a report to MEPC 74.

Information gathering

8.23 Concerning information gathering, the Committee:

- .1 instructed the Secretariat, in cooperation with FAO, to request GESAMP to also include shipping-related sources in the scope of work for the GESAMP Working Group on Sea-based Sources of Marine Litter, as a starting point to inform the future study on marine plastic litter from ships;
- .2 encouraged interested Member States and international organizations to submit to MEPC 74 information on relevant studies and work undertaken to address marine plastic litter from ships for the purpose of information sharing and informing future work on this issue; and
- .3 invited Member States and international organizations to undertake studies to better understand microplastics from ships and submit them to the Committee for information.

Reporting of containers lost at sea

8.24 With regard to containers lost at sea, the Committee noted that the Group had agreed that the establishment of an obligation to report timely, specific and relevant identification and location information of containers lost at sea would not only have a positive impact on understanding the contribution of lost containers to marine plastic pollution but also potentially improve safety of navigation and the safety of fishing vessels.

8.25 The Committee also noted that the Group was uncertain as to whether MARPOL or SOLAS would be the more appropriate instrument to introduce a requirement for reporting containers lost at sea.

8.26 Consequently, the Committee agreed to invite the Maritime Safety Committee to consider the establishment of a mandatory system for reporting containers lost at sea, taking into account the discussions of the Working Group on Marine Plastic Litter on this matter (MEPC 73/WP.9, paragraphs 30 to 33) and the corresponding action in the Action Plan (resolution MEPC.310(73), annex, table of actions, row 10), subject to supporting proposals being submitted to MSC 101 by interested Member States and international organizations.

Reception facilities

8.27 In relation to port reception facilities, the Committee encouraged Parties to MARPOL Annex V to implement their obligation to provide adequate facilities at ports and terminals for the reception of garbage.

Cooperation

8.28 The Committee requested the Secretariat to continue to work with other United Nations bodies and agencies, as well as with international forums which are active in the matter of marine plastic litter from ships.

9 DEVELOPMENT OF MEASURES TO REDUCE RISKS OF USE AND CARRIAGE OF HEAVY FUEL OIL AS FUEL BY SHIPS IN ARCTIC WATERS

9.1 The Committee recalled that MEPC 71 had agreed to include a new output on "Development of measures to reduce risks of use and carriage of heavy fuel oil as fuel by ships in Arctic waters" in the 2018-2019 biennial agenda of the Committee, assigning the PPR Sub-Committee as the associated organ, with two sessions needed to complete the work.

9.2 The Committee also recalled that MEPC 72 had approved the following scope of work for the PPR Sub-Committee:

- .1 develop a definition of heavy fuel oils taking into account regulation 43 of MARPOL Annex I;
- .2 prepare a set of guidelines on mitigation measures to reduce risks of use and carriage of heavy fuel oil as fuel by ships in Arctic waters, taking into account document MEPC 72/11; and
- .3 on the basis of an assessment of the impacts, develop a ban on heavy fuel oil (HFO) for use and carriage as fuel by ships in Arctic waters, on an appropriate timescale.

9.3 The Committee further recalled that MEPC 72 had urged Member Governments and international organizations to submit concrete proposals to MEPC 73 on an appropriate impact assessment methodology process to enable the PPR Sub-Committee to undertake its work.

9.4 The Committee had for its consideration the following documents:

- .1 MEPC 73/9 (Canada and Russian Federation), providing a progress report of an informal correspondence group convened to provide guidance on the process of conducting an impact assessment on Arctic communities and economies of a proposed ban on HFO use and carriage as fuel by ships;
- .2 MEPC 73/9/1 (United States), proposing a methodology to assess both costs and benefits to Arctic communities and industries of a ban on HFO use and carriage as fuel by ships in Arctic waters;
- .3 MEPC 73/9/2 (Finland), commenting on the impact assessment methodology proposed in document MEPC 73/9 and proposing a five-step approach for consideration, noting that much of the work necessary to complete such an assessment had already been undertaken;
- .4 MEPC 73/9/3 (FOEI et al.), commenting on document MEPC 73/9 and drawing attention to new studies that would contribute to assessing the economic and environmental impacts of a ban on the use and carriage of HFO as fuel by ships in the Arctic waters; and

- .5 MEPC 73/INF.19 (Canada and Russian Federation), providing a collation of comments on the work of the informal correspondence group on the determination of an appropriate impact assessment methodology.

9.5 In the ensuing discussion, there was wide support for the complementary impact assessment methodologies proposed in documents MEPC 73/9/1 and MEPC 73/9/2, while some delegations supported documents MEPC 73/9, MEPC 73/9/3 and MEPC 73/INF.19.

9.6 The delegation of Canada provided rectification in respect to paragraph 6.5 of document MEPC 73/9/3, stating that Canada did not share the view expressed in the report that the current Canadian liability regime in place did not require adequate shipowners insurance to cover the potential costs of an Arctic fuel oil spill and consequently, serve as a disincentive for shipowners to switch away from HFO.

9.7 The delegation of France reiterated their view, expressed at previous sessions, that the issue of HFO carried as cargo should also be taken into consideration in the assessment of impacts.

9.8 Following discussion, the Committee instructed the PPR Sub-Committee to finalize the impact assessment methodology using documents MEPC 73/9/1 and MEPC 73/9/2 as a basis, taking into account documents MEPC 73/9, MEPC 73/9/3 and MEPC 73/INF.19.

9.9 Noting that there were a number of studies currently being conducted to better understand the environmental and socio-economic impacts on Arctic communities and local economies, and in order to expedite the scope of work, the Committee invited Member Governments and international organizations to submit any further proposals on an appropriate impact assessment methodology process, and the results of any impact assessments undertaken, bearing in mind the decision by the Committee (see paragraph 9.8), in respect of a proposed ban on HFO to PPR 6 for consideration and advice to the Committee.

9.10 As requested, the statement made by the delegation of the Russian Federation, expressing its concern over the Committee's instruction to PPR 6 to consider results of any impact assessments before the finalization of relevant methodology, is set out in annex 18.

10 IDENTIFICATION AND PROTECTION OF SPECIAL AREAS, ECAs AND PSSAs

10.1 The Committee noted document MEPC 73/INF.18 (Indonesia) providing information on the recent progress of the development of a PSSA proposal for the protection of Nusa Penida Islands in the Lombok Strait.

11 POLLUTION PREVENTION AND RESPONSE

Outcome of PPR 5

11.1 The Committee recalled that MEPC 72, having considered urgent matters emanating from PPR 5 concerning MARPOL Annex VI, the evaluation of products and cleaning additives, and the work programme of the Sub-Committee, took action as recorded in paragraphs 5.2 to 5.7, 9.1 to 9.4 and 15.10 of its report of that session (MEPC 72/17).

11.2 In considering the remaining outcome of the fifth session of the Sub-Committee (MEPC 73/11), the Committee approved the report of PPR 5 (PPR 5/24 and PPR 5/24/Add.1) in general and took action as indicated in paragraphs 11.3 to 11.32.

11.3 The Committee noted that, of the action requested of it by PPR 5, as listed in paragraph 3 of document MEPC 73/11 (Secretariat):

- .1 point .30, concerning the draft *Guidance on system design limitations of ballast water management systems and their monitoring*, together with document MEPC 73/11/3 (IMarEST), had been considered under agenda item 4 (Harmful aquatic organisms in ballast water) (see paragraphs 4.12, 4.13, 4.34.1 and 4.36);
- .2 points .7 to .14 and .27, concerning air pollution from ships, together with document MEPC 73/INF.5 (CESA), had been considered under agenda item 5 (Air pollution and energy efficiency) (see paragraphs 5.2 to 5.17); and
- .3 points .24 to .26, .28, .29 and .31, together with documents MEPC 73/INF.10 (Austria et al.), MEPC 73/11/1 (United States) and MEPC 73/INF.15 (United States), concerning the work programme of the Sub-Committee had been considered under agenda item 15 (Work programme of the Committee and subsidiary bodies) (see paragraphs 15.12 to 15.19).

New GISIS functionality for tripartite agreements

11.4 The Committee noted that the Secretariat had issued Circular Letter No.3880, describing the new GISIS functionality for the online submission of technical data contained in tripartite agreements and informing Member Governments that such data should be submitted via GISIS.

Draft amendments to the IBC and BCH Codes

11.5 The Committee noted that PPR 5 had finalized draft amendments to the International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk (IBC Code) (PPR 5/24/Add.1) mainly consisting of the following:

- .1 draft new paragraph 15.15 (Hydrogen sulphide (H₂S) detection equipment for bulk liquids);
- .2 draft new paragraph 16.2.7, referring to the draft new prewash requirements in MARPOL Annex II (see also paragraphs 11.10 to 11.12); and
- .3 the full text of draft revised chapters 17 (Summary of minimum requirements), 18 (List of products to which the Code does not apply), 19 (Index of Products Carried in Bulk) and 21 (Criteria for assigning carriage requirements for products subject to the IBC Code).

11.6 Following consideration, the Committee approved, subject to concurrent decision by MSC 100, the draft amendments to the IBC Code, as set out in annex 11, and requested the Secretary-General to circulate them in accordance with MARPOL article 16(2), with a view to adoption at MEPC 74.

11.7 The Committee also approved, subject to concurrent decision by MSC 100, the draft consequential amendments to the Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk (BCH Code), as set out in annex 12, and requested the Secretary-General to circulate them in accordance with MARPOL article 16(2), with a view to adoption at MEPC 74.

Carriage of energy-rich fuels

11.8 The Committee noted that PPR 5, as part of its work on the development of guidance for assessing and classifying products under Annexes I and II of MARPOL to ensure that they were covered under the appropriate MARPOL Annex, had prepared draft guidelines covering energy-rich fuels (PPR 5/24, annex 3).

11.9 Following consideration, the Committee approved MEPC.1/Circ.879 on *Guidelines for the carriage of energy-rich fuels and their blends* and endorsed the consequential inclusion of a new annex 12 to the MEPC.2/Circular on *Provisional categorization of liquid substances in accordance with MARPOL Annex II and the IBC code*, for the purpose of listing substances that, following assessment by the Working Group on the Evaluation of Safety and Pollution Hazards of Chemicals, were deemed to be subject to MARPOL Annex I.

Draft amendment to MARPOL Annex II

11.10 The Committee noted that PPR 5 had finalized the draft amendments to MARPOL Annex II relating to cargo residues and tank washings of persistent floating products with a high viscosity (equal to or greater than 50 mPa·s at 20°C) and/or a high melting point (equal to or greater than 0°C) (PPR 5/24, annex 4).

11.11 In this connection, the Committee noted the information provided in document MEPC 73/INF.14 (Netherlands) regarding an agreement signed between public and private partners in the Netherlands to stimulate the delivery of washwater containing paraffin waxes to a port reception facility.

11.12 Following consideration, the Committee approved the draft amendments to MARPOL Annex II, as set out in annex 13, and requested the Secretary-General to circulate them in accordance with MARPOL article 16(2), with a view to adoption at MEPC 74.

Revised guidelines for the application of MARPOL Annex I requirements to floating production, storage and offloading facilities (FPSOs) and floating storage units (FSUs)

11.13 The Committee noted that PPR 5 had prepared the draft *2018 Guidelines for the application of MARPOL Annex I requirements to floating production, storage and offloading facilities (FPSOs) and floating storage units (FSUs)* (PPR 5/24, annex 11).

11.14 In this context, the Committee had for its consideration document MEPC 73/11/2 (India et al.), commenting on the draft 2018 Guidelines and proposing that "master" be replaced by "master or person-in-charge" in sections 5.6.5.1, 5.6.5.3 and 5.6.5.4 of the draft 2018 Guidelines, to cover FPSOs/FSUs that did not have a master on board.

11.15 Following consideration, the Committee agreed to the modifications proposed in document MEPC 73/11/2 and adopted resolution MEPC.311(73) on the *2018 Guidelines for the application of MARPOL Annex I requirements to floating production, storage and offloading facilities (FPSOs) and floating storage units (FSUs)*, as set out in annex 14.

Updated IMO dispersant guidelines (part IV)

11.16 The Committee approved part IV of the *Guidelines for the use of dispersant for combating oil at sea* (IMO Dispersant Guidelines), as set out in annex 12 to document PPR 5/24, and authorized the Secretariat, when preparing part IV of the IMO Dispersant Guidelines for publication, to effect any editorial corrections that might be identified as appropriate. In this regard, the Committee requested the Secretariat to publish parts I to IV of the IMO Dispersant Guidelines together.

Electronic record books under MARPOL

11.17 The Committee had for its consideration the draft MEPC resolution on *Guidelines for the use of electronic record books under MARPOL* (PPR 5/24, annex 13) and the draft amendments to MARPOL Annexes I, II, V and VI, and the NO_x Technical Code (PPR 5/24, annex 14), concerning electronic record books (ERBs), that had been finalized at PPR 5.

11.18 The delegation of the United States made a statement expressing its strong opposition to the approval in principle of the draft *Guidelines for the use of electronic record books under MARPOL* and the associated draft amendments to MARPOL and the NO_x Technical Code, as in their view the use of ERBs that had been approved taking into account non-mandatory guidelines would not provide the same degree of accessibility, consistency, clarity, reliability, integrity and accountability as hard copy records presently required by MARPOL. The full text of the statement made by the delegation is set out in annex 18.

11.19 The Committee noted that the concerns raised by the delegation of the United States were shared by the delegations of the United Kingdom and Mexico.

11.20 The Committee also noted that the majority of delegations that spoke supported the approval, in principle, of the draft *Guidelines for the use of electronic record books under MARPOL*. In this regard, the Committee noted the following comments:

- .1 in anticipation of the adoption of the amendments, a number of ships were already using ERBs for the purposes of MARPOL recording without any formal guidance on the use of electronic record books;
- .2 while there might be an opportunity to make enhancements to the guidelines developed by the Organization, or develop further measures or instruments to support the use of ERB systems in the future, such enhancements were reliant on experience that could be gained from the use of ERBs on board ships;
- .3 the Organization had on many occasions first developed recommendations and subsequently considered the need and suitability of additional measures based on experience gained with their implementation;
- .4 within the texts of various IMO instruments including MARPOL there were a great number of guidelines related to technical specifications, on which the final approval was left to the Administration, and in the case of ERBs such a solution provided adequate means for ensuring the validity of the information contained in the ERB;
- .5 there was a need to provide consistent guidance to operators already using electronic recording systems in accordance with MARPOL;
- .6 the draft guidelines and the draft amendments were the product of a collaborative and well thought out approach to support the use of ERBs, which could be implemented by Member States;
- .7 during the development of the draft guidelines and the draft amendments to MARPOL and the NO_x Technical Code, due consideration was given to many proposals presented by various Member States and international organizations;

- .8 guidelines were easier to amend than mandatory codes, and that provided the necessary flexibility to rapidly take account of any changes in technology; and
- .9 the BWM Convention also needed to be amended to maintain consistency between IMO instruments.

11.21 The Committee also had for its consideration document MEPC 73/11/4 (IACS) seeking the Committee's advice as to whether any action needed to be taken in relation to electronic recording systems, particularly ozone-depleting substance electronic recording systems, on existing ships, that did not comply with the draft *Guidelines for the use of electronic record books under MARPOL*, as well as seeking clarification by the Committee on the intent of paragraph 4.4.6 of the draft guidelines, specifically on whether type approval of the hardware was expected as per the referenced International Electrochemical Commission (IEC) standards.

11.22 The Committee noted the view that the time before entry into force of the amendments could be used by Administrations to approve existing ozone-depleting substance electronic recording systems in accordance with the Guidelines, or alternatively the introduction of a transition period could be considered. The Committee also noted the comment that some guidance from IACS on the best approach to transitioning such systems would be welcome.

11.23 Having noted that Member States required additional time to consider the issues raised by IACS, the Committee agreed to defer consideration of document MEPC 73/11/4 until MEPC 74.

11.24 Subsequently, the Committee approved, in principle, the draft MEPC resolution on *Guidelines for the use of electronic record books under MARPOL*, as set out in annex 13 to document PPR 5/24, with a view to adoption at MEPC 74 in conjunction with the associated draft amendments to MARPOL and the NO_x Technical Code.

11.25 Correspondingly, the Committee also approved the draft amendments to the NO_x Technical Code, MARPOL Annex VI and MARPOL Annexes I, II and V concerning electronic record books, as set out in annexes 4, 6 and 15, respectively, and requested the Secretary-General to circulate them in accordance with MARPOL article 16(2), with a view to adoption at MEPC 74.

11.26 The delegation of the United States reserved its position with regard to the Committee's decisions to approve draft amendments to MARPOL Annexes I, II, V and VI and the NO_x Technical Code to allow the use of electronic record books and to approve in principle non-mandatory guidelines for electronic record books. The full text of the statement made by the delegation is set out in annex 18.

11.27 The Committee also noted the concern by the observer from WSC regarding the use of guidelines, which were inherently non-binding, for the approval of electronic record books, considering the importance of record-keeping. In this regard, the Committee further noted the proposal by the observer from WSC that the Committee should indicate that the *Guidelines for the use of electronic record books under MARPOL* would be revisited with a view to adopting a mandatory code.

11.28 Subsequently, the Committee encouraged companies with ships that would be using electronic record books during the interim period, prior to the entry into force of the relevant amendments to MARPOL and the NO_x technical Code (if adopted), to share their experience with their flag State Administration.

11.29 Similarly, the Committee encouraged flag and port States to submit to future sessions of the Committee relevant information on the use of the *Guidelines for the use of electronic record books*, subject to their adoption at MEPC 74, to aid in the facilitation and the use of electronic record books.

11.30 The Committee also approved, in principle, the draft amendments to the *Procedures for port State control, 2017* (resolution A.1119(30)), as set out in annex 15 to document PPR 5/24, and forwarded them to the III Sub-Committee for inclusion in the future amendments to resolution A.1119(30).

11.31 Correspondingly, the Committee also approved, in principle, the draft amendments to the *2009 Guidelines for port State control under the revised MARPOL Annex VI* (resolution MEPC.181(59)), as set out in annex 16 to document PPR 5/24, with a view to adoption at a future session in conjunction with other amendments to the 2009 Guidelines being developed by the PPR Sub-Committee.

11.32 In response to a query, the Committee confirmed that, in the event that interested Member States or international organizations identified the need for additional changes to the *2009 Guidelines for port State control under the revised MARPOL Annex VI* (resolution MEPC.181(59)), they could submit their comments or proposals to the PPR Sub-Committee or the Committee, as the draft amendments had been approved in principle only.

12 REPORTS OF OTHER SUB-COMMITTEES

OUTCOME OF HTW 5

Update of model courses

12.1 Having considered the request of HTW 5 concerning the need to update model courses approved by MEPC, the Committee requested the Secretariat to assess, in light of the various amendments to MARPOL Annex VI since 2014, whether the model course for energy efficient operation of ships (No. 4.05) would require updates, and to advise the next session of the Committee of its findings for appropriate action; and agreed that the OPRC Model Courses (Nos. 4.02, 4.03 and 4.04, respectively) did not require updating at this stage as they were published in 2018.

Revision of Guidelines for the development, review and validation of model courses

12.2 The Committee approved the draft amendments to the *Revised guidelines for the development, review and validation of model courses* (MSC-MEPC.2/Circ.15), as set out in annex 2 to document HTW 5/16, subject to concurrent decision by MSC 100.

Outcome of III 5

12.3 The Committee recalled that the Sub-Committee on Implementation of IMO Instruments (III) had held its fifth session from 24 to 28 September 2018, and noted that due to the proximity of III 5 and MEPC 73, relevant matters emanating from III 5, including the provisional agenda for the fourth session of the joint IMO/FAO Ad Hoc Working Group on Illegal, Unreported and Unregulated Fishing and Related Matters (JWG 4), would be reported to MEPC 74.

13 TECHNICAL COOPERATION ACTIVITIES FOR THE PROTECTION OF THE MARINE ENVIRONMENT

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

- .1 MEPC 73/13 (Secretariat) on the Organization's technical cooperation activities related to the protection of the marine environment implemented between 1 January and 31 July 2018 under the Integrated Technical Cooperation Programme (ITCP). The Committee noted in particular that, contrary to previous reporting on ITCP activities, the activities had been structured thematically instead of geographically (by region) to better demonstrate IMO's capacity-building efforts per environmental convention and to highlight how activities implemented under ITCP could complement the work carried out under IMO's major technical cooperation projects.
- .2 MEPC 73/13/3 (Secretariat) on the activities carried out under the five ongoing IMO major technical cooperation projects related to the protection of the marine environment, namely:
 - .1 GEF-UNDP-IMO Global Maritime Energy Efficiency Partnerships (GloMEEP) Project;
 - .2 IMO-European Union Global MTCC Network (GMN) Project;
 - .3 IMO-Norad Project on Marine Environmental Protection of the Southeast Asian Seas (MEPSEAS);
 - .4 IMO-Norad Project on Safe and Environmentally Sound Ship-recycling in Bangladesh, Phase II (SENSREC-Phase II); and
 - .5 IMO-IPIECA Project on Global Initiative for West and Central Africa Project (GI WACAF) aimed at enhancing the capacity to prepare for and respond to marine oil spills in that region.

The Committee also noted the update on the preparations of the new five-year, \$6.9 million GEF-UNDP-IMO GloFouling Partnerships Project, which was presented during MEPC 73.

- .3 MEPC 73/13/1 (Secretariat), outlining the activities implemented in the first half of 2018 by the Regional Marine Pollution Emergency Response Centre for the Mediterranean Sea (REMPEC), notably those activities related to the OPRC 90 Convention and the OPRC-HNS Protocol, as well as those reducing air pollution from ships and those enhancing the management of ship-generated waste in Mediterranean ports.
- .4 MEPC 73/13/4 (Secretariat), providing an update on the work of the Global Industry Alliance to Support Low Carbon Shipping, within the framework of the GEF-UNDP-IMO GloMEEP Project, in particular on its ongoing work on just-in-time arrival and related port and navigational services, and the development of an e-learning course on energy efficient operations of ships.

- .5 MEPC 73/13/2 (Secretariat) providing an overview of IMO's three main ways of delivering technical assistance aimed at enhancing preparedness, response and cooperation in case of incidents involving oil and HNS pollution, namely through:
- .1 IMO's Integrated Technical Cooperation Programme (ITCP);
 - .2 multi-annual cooperation projects with industry or specific donors; and
 - .3 IMO's permanent support to Regional Activity Centres established under the Regional Seas Programme of the United Nations Environment Programme.

13.2 The Committee expressed its appreciation for the various technical cooperation activities implemented by the Secretariat under ITCP, including those implemented by REMPEC in the context of the Regional Strategy (2016-2021) for the Mediterranean Sea, stressing the importance of improving the implementation of IMO environment-related conventions.

13.3 The Committee also expressed its appreciation for the GEF-UNDP-IMO Global Maritime Energy Efficiency Partnerships (GloMEEP), including the work of the Global Industry Alliance to Support Low Carbon Shipping, and the IMO-European Union Global MTCC Network (GMN) Projects, noting the important roles of these initiatives in supporting the implementation of MARPOL Annex VI on energy efficiency and reduction of GHG emissions from ships. The Committee welcomed the new GEF-UNDP-IMO funded GloFouling Partnerships Project.

13.4 In referring to the relevance of GloMEEP in implementing the *Initial IMO Strategy on Reduction of GHG Emissions from Ships* (resolution MEPC.304(72)), as well as reducing emissions in port areas, several delegations requested the Secretariat to look into possible ways of extending the GloMEEP project, including the secretarial support provided to the Global Industry Alliance to Support Low Carbon Shipping, beyond the currently envisaged end date of 31 December 2018.

13.5 The Committee further expressed its appreciation for the continued support for the implementation of IMO's environmental conventions provided by the Norad-funded projects, MEPSEAS and SENSREC Phase II. In view of the positive results achieved through the projects, the delegation of Norway stated that it was exploring possible funding for additional technical assistance activities.

13.6 In relation to document MEPC 73/13/2, the Committee expressed its appreciation for the sustained financial and technical support provided by industry associations like IPIECA and the International Tanker Owners Pollution Federation Limited (ITOPF) and other donors, such as Norad, and through projects like the Global Initiative, which support developing countries to adequately prepare for potential spills from ships as well as from offshore oil and gas explorations.

13.7 The observer from IPIECA reaffirmed its commitment to the efforts set out in document MEPC 73/13/2, and notably its partnership with IMO through the projects implemented under the Global Initiative, such as for West, Central and Western Africa (GI WACAF) and South East Asia (GI SEA). The observer further underlined the importance of cooperation between Member States and industry to ensure the effective implementation of the OPRC 90 Convention and the OPRC-HNS Protocol.

13.8 The Committee also recognized the added value of the long-standing close cooperation between the Secretariat and regional centres like REMPEC, REMPEITC/Caribe and NOWPAP-MERRAC, which had been set up under the respective Regional Seas Programmes of the United Nations Environment Programme.

13.9 The Committee agreed that additional technical assistance in the area of preparedness and response to spills involving oil and HNS was still needed, notably to support ratification of the OPRC-HNS Protocol. The Committee, having noted the need to assess possible ways of better pooling all the available resources for capacity-building in the area of spill preparedness and response, and to explore further cooperation with existing and new partners, invited interested Member Governments and other stakeholders to submit proposals to that end to a future session.

13.10 The Committee recalled that the Organization's technical assistance activities could only be delivered if the required funding were secured from the Organization's internal resources and/or external donor contributions. In that context, the Committee noted that TC 68 had considered and approved a draft strategy for resource mobilization to ensure the long-term financing of ITCP, and had urged Member States to communicate with their development aid agencies to include IMO technical cooperation activities as a priority item in their national development aid plans (TC 68/15, paragraphs 4.9.1 and 4.9.2, and MEPC 73/2/3).

13.11 The Committee expressed appreciation for all financial and in-kind contributions to the Organization received from Member States, international organizations and industry partners supporting IMO environmental technical assistance activities, and invited all partners, where possible, to increase their support to IMO technical cooperation activities to further enhance the implementation of IMO environmental conventions.

14 CAPACITY-BUILDING FOR THE IMPLEMENTATION OF NEW MEASURES

14.1 The Committee recalled that MEPC 72 (MEPC 71/17, paragraph 12.2) had requested the Vice-Chair of the Committee, in consultation with the Chair and assisted by the Secretariat, to submit to this session a preliminary assessment of the capacity-building implications and technical assistance needs related to the amendments to mandatory instruments.

14.2 The Committee considered document MEPC 73/14 (Vice-Chair) providing the outcome of the preliminary assessment referred to above, and noted that annex 2 of the document set out the assessment of the implications of amendments to regulation 14 of MARPOL Annex VI concerning the prohibition on the carriage of non-compliant fuel oil for combustion purposes for propulsion or operation on board a ship and the form of the Supplement to the International Air Pollution Prevention (IAPP) Certificate. The Committee further noted that these amendments were found to have no significant capacity-building implications.

14.3 The Committee, taking into account the results of the assessment, agreed that it would not be necessary to establish the Ad Hoc Capacity-building Needs Analysis Group at this session. The Committee concluded by requesting the Vice-Chair, in consultation with the Chair and with the assistance of the Secretariat, to submit to MEPC 74 a preliminary assessment of the capacity-building implications or technical assistance needs related to amendments to mandatory instruments and new outputs related to proposed new measures approved at the current session.

15 WORK PROGRAMME OF THE COMMITTEE AND SUBSIDIARY BODIES

Proposals for new outputs

15.1 The Committee took into account the provisions of the Committees' Method of work (MSC-MEPC.1/Circ.5/Rev.1) and of the *Application of the Strategic Plan of the Organization* (resolution A.1111(30)) when assessing the proposals for new outputs submitted to this session.

15.2 The Committee had for its consideration the following documents proposing new outputs related to ballast water management, including those documents commenting on the proposed new outputs:

- .1 MEPC 73/15 (Denmark et al.), proposing a new output for the "Efficient identification and enhancement of safety, technical, operational and documentation review and amendment for improvement and consistent implementation of the Ballast Water Management Convention", incorporating three priority agenda items listed in paragraph 17 of the document;
- .2 MEPC 73/15/1 (China), proposing a new output to develop a seafarer model course under the BWM Convention to standardize the training, certification and watchkeeping for seafarers related to ballast water management;
- .3 MEPC 73/15/2 (Russian Federation and Turkey), proposing a new output to address issues related to compliance with the BWM Convention for specific ship types;
- .4 MEPC 73/15/3 (Republic of Korea), proposing a new output to discuss the applicability of the BWM Convention to seagoing fishing vessels using brine as a refrigerant;
- .5 MEPC 73/15/5 (Australia et al.), providing comments on document MEPC 73/15, including revised outputs, which, in the co-sponsors' view, would provide for the long-term improvement of the Convention as well as timely consideration of urgent issues;
- .6 MEPC 73/15/6 (ICS), providing comments on document MEPC 73/15/1, and proposing a revised output as "Development of training provisions for seafarers related to the BWM Convention"; and
- .7 MEPC 73/INF.17 (Republic of Korea), providing information on the environmental impact of brine used in fishing vessels,

together with the Chair's preliminary assessment of the proposals (MEPC 73/WP.4, annex 2).

New work output on efficient identification and enhancement of safety, technical, operational and documentation review and amendment for improvement and consistent implementation of the Ballast Water Management Convention

15.3 The Committee proceeded to consider document MEPC 73/15 (Denmark et al.), in conjunction with commenting document MEPC 73/15/5 (Australia et al.). With regard to the first two outputs proposed in document MEPC 73/15, namely:

- .1 "Safety, technical, and operational matters for specific ship types for improved and consistent implementation of the Ballast Water Management Convention" (paragraph 17.1); and
- .2 "Documentation review of the Ballast Water Management Convention impacting the certification of a ship that require attention in addition to the data gathering and analysis plan (DGAP) of the experience building phase (EBP)" (paragraph 17.2),

many delegations expressed support. However, the majority of delegations that spoke expressed a preference for the titles and scopes of the outputs concerning these matters as proposed in commenting document MEPC 73/15/5.

15.4 With regard to the third proposed output in document MEPC 73/15 concerning an amendment to article 9 of the BWM Convention, the Committee considered the timing of a potential amendment. One delegation expressed support for including the output, as proposed in document MEPC 73/15, on the current biennial agenda of the Committee. However, the majority of delegations expressed the view that amending article 9 should be done only at the conclusion of the experience-building phase, taking into account data submitted under the data gathering and analysis plan.

15.5 In light of the above discussion, the Committee instructed the Ballast Water Review Group, established under agenda item 4, to review the proposals in documents MEPC 73/15 and MEPC 73/15/5, with a view to refining the titles of the outputs, defining the scope of work of each output and advising the Committee accordingly.

Proposal for a new output regarding the development of the seafarer model course under the Ballast Water Management Convention

15.6 In considering documents MEPC 73/15/1 (China) and MEPC 73/15/6 (ICS), the Committee noted the support for the modified proposal in document MEPC 73/15/6, which would enable a comprehensive review of seafarer training related to ballast water management, and at the same time did not preclude a model course. Following discussion, the Committee instructed the Ballast Water Review Group to further consider the proposals in documents MEPC 73/15/1 and MEPC 73/15/6, using document MEPC 73/15/6 as a basis, with a view to refining the title of the output, defining its scope of work and advising the Committee accordingly.

Proposal for a new output on development of necessary amendments to the BWM Convention so as to overcome technical and operational challenges in complying with the BWM Convention

15.7 During discussion on document MEPC 73/15/2 (Russian Federation and Turkey), some delegations expressed support for the proposal to exempt specific ship types from the BWM Convention, and the inclusion of this output on the current biennial agenda. However, some other delegations expressed the view that the proposal was not needed. Following this discussion, the Committee instructed the Ballast Water Review Group to review the proposal, taking into account comments made in plenary, with a view to refining the title of the output, defining its scope of work and advising the Committee accordingly.

Development of unified interpretation or guidance on the application of the BWM Convention to seagoing fishing vessels using brine as a refrigerant

15.8 During the discussion on documents MEPC 73/15/3 and MEPC 73/INF.17 (Republic of Korea), some delegations supported the proposal for a new output for clarification purposes. However, in concurring with the view of the majority of delegations that spoke, that brine used as a refrigerant was not considered ballast water under the definition of the BWM Convention, the Committee agreed that there was no need for a new output for this matter.

Instructions to the Ballast Water Review Group

15.9 Following consideration of the proposals for new outputs, the Committee instructed the Ballast Water Review Group, established under agenda item 4, taking into account comments and decisions made in plenary, to review the proposals for new outputs contained in documents MEPC 73/15, MEPC 73/15/1 and MEPC 73/15/2, taking into account documents MEPC 73/15/5 and MEPC 73/15/6, with a view to refining the titles of the outputs and defining the scope of work of each output, and advising the Committee accordingly.

Report of the Ballast Water Review Group

15.10 Having considered the relevant parts of the report of the Ballast Water Review Group (MEPC 73/WP.10, paragraphs 21 to 38 and annex 4), the Committee approved the following new outputs:

- .1 "Development of training provisions for seafarers related to the BWM Convention", in the post-biennial agenda of the Committee, assigning the HTW Sub-Committee as the associated organ, with two sessions needed to complete the work;
- .2 "Review of the BWM Convention based on data gathered in the experience-building phase", in the biennial agenda of the Committee, with a target completion year of 2023; and
- .3 "Urgent measures emanating from issues identified during the experience-building phase of the BWM Convention", in the biennial agenda of the Committee, with a target completion year of 2023.

Sub-Committee on Pollution Prevention and Response (PPR)***Outcome of MEPC 72 regarding the biennial status report of the PPR Sub-Committee and provisional agenda for PPR 6***

15.11 The Committee recalled that MEPC 72 had noted the biennial status report of the PPR Sub-Committee and approved the provisional agenda for PPR 6, subject to further review at this session.

Amendment of annex 1 to the AFS Convention to include controls on cybutryne, and consequential revision of relevant guidelines

15.12 Having considered the outcome of PPR 5 relating to the AFS Convention (MEPC 73/11, paragraphs 3.24 to 3.26; and PPR 5/24, paragraphs 19.7 and 19.8), the Committee took action as outlined in paragraphs 15.13 to 15.15 below.

15.13 The Committee noted that PPR 5, having first agreed that the initial proposal to amend annex 1 to the AFS Convention to include controls on cybutryne, as submitted by Austria et al. in document PPR 5/19 together with the information contained in document PPR 5/INF.9, satisfied the requirements of annex 2 to the AFS Convention, had agreed that a more detailed review of cybutryne was warranted.

15.14 In this context, the Committee noted the additional information on environmental concentrations observed worldwide and scientific evidence for the adverse effects of cybutryne to the marine environment and to human health provided in document MEPC 73/INF.10 (Austria et al.) and agreed to:

- .1 rename output 2.19 to "Amendment of annex 1 to the AFS Convention to include controls on cybutryne, and consequential revision of relevant guidelines";
- .2 extend the target completion year to 2020; and
- .3 forward document MEPC 73/INF.10 to PPR 6.

15.15 In addition, the Committee invited the submission, to PPR 6, of a comprehensive proposal to amend annex 1 to the AFS Convention to include controls on cybutryne, containing all the information required in annex 3 to the AFS Convention and taking also into account the concerns expressed at PPR 5 regarding the need for a robust process for risk assessments and the possibly limited geographical scope of the risk assessments carried out for the initial proposal.

Use of multiple engine operational profiles (maps)

15.16 The Committee noted that PPR 5 had invited it to approve a new output on "Development of amendments to MARPOL Annex VI and the NO_x Technical Code on the use of multiple engine operational profiles for a marine diesel engine", taking into account the associated scope of the output and description of "Engine Operational Profile" (MEPC 73/11, paragraph 3.31; and PPR 5/24, paragraph 23.15).

15.17 In this regard, the Committee had for consideration the following documents:

- .1 MEPC 73/11/1 (United States), reiterating the concerns of the United States regarding the use of multiple engine operation profiles and proposing an approach known as "Not to Exceed (NTE) Zones" to ensure that NO_x reductions are achieved when an engine is operating at modes not included in the certification test cycle; and
- .2 MEPC 73/INF.15 (United States), providing information about the development of Not to Exceed (NTE) Zones in the United States Federal marine diesel engine regulatory process.

15.18 Following discussion, the Committee agreed to the inclusion of a new output on "Development of amendments to MARPOL Annex VI and the NO_x Technical Code on the use of multiple engine operational profiles for a marine diesel engine" in the post-biennial agenda of the Committee, assigning the PPR Sub-Committee as an associated organ, with two sessions needed to complete the work. The Committee further agreed to the scope of work for the output as follows:

"Taking into account the concept of Not to Exceed (NTE) Zones, as described in documents MEPC 73/11/1 and MEPC 73/INF.15, clarify whether multiple engine operational profiles are allowed, and if so, what regulatory controls should be applied, noting these may also need to include amendments to MARPOL Annex VI and the NO_x Technical Code 2008; and if not allowed, then what amendments would be necessary to MARPOL Annex VI and the NO_x Technical Code 2008 to explicitly prohibit multiple engine operational profiles".

Biennial status report of the PPR Sub-Committee and provisional agenda for PPR 6

15.19 Subsequently, the Committee confirmed the biennial status report of the PPR Sub-Committee and the provisional agenda for PPR 6 (MEPC 72/17, annex 12).

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

Biennial status report of the CCC Sub-Committee and provisional agenda for CCC 6

15.20 The Committee approved the biennial status report of the CCC Sub-Committee and the provisional agenda for CCC 6, as set out in annexes 11 and 12 of document CCC 5/13, subject to concurrent decision by MSC 100.

Sub-Committee on Implementation of IMO Instruments (III)

Biennial status report of the III Sub-Committee and provisional agenda for III 6

15.21 The Committee approved the biennial status report of the III Sub-Committee and the provisional agenda for III 6, as set out in annexes 14 and 15 of document III/15, subject to concurrent decision by MSC 100.

Status of outputs of MEPC for the 2018-2019 biennium

15.22 Having recalled that, as per usual practice, the status of outputs would only be produced after the session as an annex to the Committee's report, in accordance with paragraph 9.1 of the *Application of the Strategic Plan of the Organization* (resolution A.1111(30)), to avoid any unnecessary duplication of work, the Committee invited the Council to note the biennial status report of the outputs of MEPC for the 2018-2019 biennium, as set out in annex 16.

Activities, priorities and plan of meeting weeks of the Committees and their subsidiary bodies

15.23 The Committee recalled that paragraph 3.5 of the Committees' Method of work required that, at the end of the first year of a biennium, the Committee Chairs should submit to their respective Committees a joint plan covering the activities, priorities and meetings of the Committees and their subsidiary bodies for the coming biennium, with a view to inclusion in the Secretary-General's relevant budget proposals.

15.24 In this regard, the Committee noted the information provided in document MEPC 73/15/4 (Chairs of MSC and MEPC) regarding the planned activities and priorities of the Committees and Sub-Committees during the 2020-2021 biennium and considered the proposed planned meeting weeks set out in the aforementioned document.

15.25 Having agreed that, for budgetary planning purposes, the number of meeting weeks for the coming biennium should be 22.4, the Committee approved, subject to concurrent decision by MSC 100, the proposed plan of meeting weeks for MSC and MEPC and their subsidiary bodies for the 2020-2021 biennium, as set out in the table below, for inclusion in the Secretary-General's relevant budget proposals:

Year	MSC	MEPC	CCC	HTW	III	NCSR	SDC	SSE	PPR	Total
2020	2.6	2	1	1	1	1.6	1	1	1	12.2
2021	1.6	1	1	1	1	1.6	1	1	1	10.2
Grand total (weeks)										22.4

15.26 The Committee also agreed to the proposal for the HTW Sub-Committee to meet every 18 months from HTW 8 onwards, subject to concurrent decision by MSC 100 and future review, depending on the workload of the Sub-Committee.

Tentative dates for MEPC 74 and MEPC 75

15.27 The Committee noted that MEPC 74 and MEPC 75 had been tentatively scheduled to take place from 13 to 17 May 2019 and in spring 2020, respectively.

Items to be included in the agendas of MEPC 74 and MEPC 75

15.28 Having considered the annex to document MEPC 73/WP.3 and taken into account the decisions made at this session, the Committee approved the items to be included in the agendas for MEPC 74 and MEPC 75, as set out in annex 17.

Public access to information held at IMO

15.29 The Committee recalled the decision of C 120 on various measures to allow the public greater access to information held at IMO (MEPC 74/WP.3, paragraph 3; and C 120/D, paragraph 4.9). Consequently, having taken into account the proposals set out in paragraph 4 of document MEPC 73/WP.3, the Committee agreed the following points of procedure, subject to concurrent decision by MSC 100:

- .1 Member States and international organizations could indicate at the time of submission whether their documents should be released to the public via IMODOCS prior to a meeting, and, in the absence of such an indication, those documents would be kept private prior to the meeting of the Committees;
- .2 documents by the Secretariat would be made publicly available via IMODOCS prior to the meeting, unless the Committees had decided otherwise in advance; and
- .3 Sub-Committees should follow the same practice as agreed for the Committees.

Notes by the Secretariat to MEPC 74, MEPC 75, PPR 6, CCC 6 and III 6

15.30 With regard to the public availability of notes by the Secretariat to upcoming meetings of MEPC and sub-committees, the Committee agreed that:

- .1 all the documents by the Secretariat expected to be submitted under agenda items of MEPC 74 and MEPC 75 be made publicly available prior to those sessions; and
- .2 all the documents by the Secretariat expected to be submitted under agenda items of PPR 6, CCC 6 and III 6 be made publicly available prior to the sessions, subject to concurrent decision by MSC 100.

Groups expected to be established at MEPC 74

15.31 The Committee, taking into account the decisions made under the respective agenda items, agreed in principle to establish at its next session the following groups:

- .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; and
- .5 Working Group on Marine Plastic Litter,

whereby the Chair, taking into account the submissions received on the respective subjects, would advise the Committee well in time before MEPC 74 on the final selection of such groups.

Correspondence groups

15.32 The Committee recalled that MEPC 71 had established the Correspondence Group on EEDI Review beyond Phase 2,^[1] which was due to present its final report to MEPC 74.

15.33 The Committee also recalled that it had decided, under agenda items 5 and 8, to establish the following intersessional correspondence groups to report to MEPC 74:

- .1 Correspondence Group on Fuel Oil Quality (see paragraph 5.78); and
- .2 Correspondence Group on Marine Plastic Litter from Ships (see paragraph 8.22).

Intersessional meetings

15.34 The Committee recalled that C 120 had already endorsed, as requested by MEPC 72, the holding of an intersessional meeting of the Working Group on the Evaluation of Safety and Pollution Hazards of Chemicals in 2019.

15.35 The Committee approved, subject to endorsement by the Council, the holding of the fifth meeting of the Intersessional Working Group on Reduction of GHG Emissions from Ships from 7 to 10 May 2019 (see paragraph 7.35).

16 APPLICATION OF THE COMMITTEES' METHOD OF WORK

16.1 The Committee recalled that A 30 had adopted resolution A.1111(30) on *Application of the Strategic Plan of the Organization* and requested the Council and the committees to review and revise, during the 2018-2019 biennium, their method of work, taking into account resolution A.1111(30).

16.2 In this context, the Committee noted that MSC-MEPC.1/Circ.5/Rev.1 on *Organization and method of work of the Maritime Safety Committee and the Marine Environment Protection Committee and their subsidiary bodies* (Committees' Method of work) had been issued following the approval of the draft revised circular by MEPC 72 and MSC 99.

17 ELECTION OF THE CHAIR AND VICE-CHAIR FOR 2019

17.1 The Committee, in accordance with rule 18 of its Rules of Procedure, unanimously re-elected Mr. H. Saito (Japan) as Chair and Mr. H. Conway (Liberia) as Vice-Chair, both for 2019.

^[1] Coordinator:
Mr. Masao Yamasaki
Advisor to Maritime Bureau, Ministry of Land, Infrastructure, Transport and Tourism
Class NK
Tel: +81-3-5226-2035
Email: m-yamasaki@classnk.or.jp

18 ANY OTHER BUSINESS

Interagency cooperation activities on issues relating to the protection of the marine environment

18.1 The Committee considered document MEPC 73/18 (Intergovernmental Oceanographic Commission of UNESCO) on preparations for the UN Decade of Ocean Science for Sustainable Development (the Decade) which would take place from 2021 to 2030.

18.2 Having noted the information provided, the Committee requested the Secretariat to continue to support the preparations for the Decade, with a particular focus on areas where the work of IMO, in relation to the protection of the marine environment, and the work undertaken under the auspices of the Decade could be complementary and mutually beneficial.

18.3 The Committee also considered document MEPC 73/18/2 (Secretariat), which provided an update on recent work carried out by the Secretariat, through the Marine Environment Division, in cooperation with other United Nations agencies, on issues relating to the protection of the marine environment.

18.4 Having noted the information provided, the Committee requested the Secretariat to continue to update it with any significant interagency cooperation relating to the work of the Committee.

Transfer of invasive aquatic species through ships' biofouling

18.5 The Committee recalled that MEPC 72 had agreed to include a new output on the review of the *2011 Guidelines for the control and management of ships' biofouling to minimize the transfer of invasive aquatic species* (resolution MEPC.207(62)) and assigned the PPR Sub-Committee two sessions in which to complete the work.

18.6 In this connection the Committee considered documents MEPC 73/18/1 and MEPC 73/INF.12 (Islamic Republic of Iran) on the transfer of non-indigenous/invasive species through ships; the status of biofouling of non-indigenous/invasive species in busy ports on the southern Iranian coastline; and their summation that the existing regulations and requirements related to the transfer of invasive aquatic species, such as the AFS and BWM Conventions and the Biofouling Guidelines, did not fully address the issue due to the absence of legal and mandatory measures on the prevention of transfer of invasive aquatic species outside of those present in ships' ballast water.

18.7 Several delegations concurred with the need to review the absence of regulatory measures on all potential pathways to prevent the transfer of invasive aquatic species by ships, and also highlighted that this should be discussed further by the PPR Sub-Committee and in conjunction with the review of the Biofouling Guidelines. A number of delegations also highlighted the contribution of effective hull cleaning in both reducing the transfer of invasive species and enhancing the energy efficiency of ships.

18.8 The Committee concluded by referring documents MEPC 73/18/1 and MEPC 73/INF.12 to the PPR Sub-Committee for further consideration under the new output on the review of the Biofouling Guidelines.

18.9 The Committee further noted the information provided in document MEPC 73/INF.24 (FOEI) outlining an assessment, commissioned by Friends of the Earth International, on using antifouling paints to protect Arctic waters from bioinvasions.

Use of perfluorooctanesulphonic acid (PFOS) and other surfactants in fire-fighting foam on board ships

18.10 The Committee considered documents MEPC 73/18/3 and MEPC 73/INF.16 (Norway) on the prevalence of PFOS and other surfactants in fire-fighting foam on board ships which were considered to be harmful to human health and the marine environment, and which were regulated under the Stockholm Convention on Persistent Organic Pollutants. The Committee noted Norway's plan to submit a proposal for a new output aimed at regulating and limiting the use of PFOS in fire-fighting foam on board ships, for consideration by the Maritime Safety Committee.

18.11 In support of the proposal, one delegation highlighted that other international instruments, including the Hong Kong Convention, might need to be taken into account when considering this matter at future meetings of the Committee.

18.12 In conclusion, the Committee noted the information provided in documents MEPC 73/18/3 and MEPC 73/INF.16, and invited Member Governments and international organizations to submit further comments on the matter to a future session of the Committee, taking into account any possible outcome of discussion within the Maritime Safety Committee.

Efforts to reduce underwater noise from commercial shipping

18.13 The Committee recalled that MEPC 72 had encouraged Member States to continue to share their experiences in dealing with the reduction of underwater noise from shipping.

18.14 In this connection, the Committee considered document MEPC 73/18/4 (Canada and New Zealand) on furthering international efforts to reduce the adverse impacts of underwater noise from commercial ships.

18.15 The Committee noted the information provided in document MEPC 73/18/4 and in particular the planned international workshop at IMO Headquarters, to be hosted by Canada from 30 January to 1 February 2019 on current and future quiet ship design. In this connection several delegations expressed support for the workshop and further highlighted their concurrence on the importance of this issue to the protection of the marine environment.

18.16 The Committee further noted the information provided in documents:

- .1 MEPC 73/INF.23 (Canada) highlighting scientific studies on shipping's contribution to underwater noise and the impact of underwater noise on marine species; and
- .2 MEPC 73/INF.26 (OSPAR Commission) on their activities in relation to underwater noise.

Other information documents

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

- .1 MEPC 73/INF.2 (Secretariat) outlining the calculation of recycling capacity for meeting the entry into force conditions of the Hong Kong Convention;
- .2 MEPC 73/INF.22 (HELCOM) outlining the HELCOM 2018 overview on Baltic Sea sewage port reception facilities; and
- .3 MEPC 73/INF.28 (WWF) detailing estimates and forecasts on shipborne grey water production in the Canadian Arctic.

18.18 In relation to document MEPC 73/INF.2 on the Hong Kong Convention, several delegations highlighted the importance of the entry into force of this Convention, acknowledging that 2019 marked the 10-year anniversary of its adoption. The delegations of Japan and India outlined their progress towards accession to this Convention recognizing its importance to the safe and environmentally sound recycling of ships.

Expressions of appreciation

18.19 The Committee expressed appreciation to Mr. Joseph J. Angelo (INTERTANKO) who was about to retire, for his invaluable contribution to the shipping industry and IMO, and wished him a long and happy retirement.

19 ACTION REQUESTED OF OTHER IMO ORGANS

19.1 The Council, at its 121st session, is invited to:

- .1 consider the report of the seventy-third session of MEPC and, in accordance with Article 21(b) of the IMO Convention, transmit it, with any comments and recommendations, to the thirty-first session of the Assembly;
- .2 note the Committee's decision to consider, in future, the matter on the regulatory scoping exercise on maritime autonomous surface ships (MASS) (paragraph 2.3);
- .3 note that the Committee approved, subject to concurrent approval by FAL 43 and LEG 106, the amendments to the *List of Certificates and documents required to be carried on board ships, 2017* (paragraph 2.4);
- .4 note that the Committee instructed the HTW Sub-Committee to consider the request of TC 68 concerning model courses and relevant guidelines, subject to concurrent decision by MSC 100 (paragraph 2.6);
- .5 consider the Committee's recommendation that consultative status should not be granted to the Conservation International Foundation (CI) (paragraph 2.11);
- .6 note that the Committee adopted amendments to MARPOL Annex VI concerning the prohibition on the carriage of non-compliant fuel oil for combustion purposes for propulsion or operation on board a ship (paragraph 3.15 and annex 1);
- .7 note the action taken by the Committee on issues related to ballast water management (section 4 and annex 2);
- .8 note the action taken by the Committee on issues related to air pollution and energy efficiency of ships, in particular, the approval of MEPC.1/Circ.878 on *Guidance on the development of a ship implementation plan for the consistent implementation of the 0.50% sulphur limit under MARPOL Annex VI* and the progress made on the development of draft amendments to MARPOL Annex VI on strengthening EEDI phase 3 requirements (section 5 and annexes 3 to 7);
- .9 note the action taken by the Committee on issues related to implementation of the data collection system for fuel oil consumption of ships (section 6);

- .10 note the action taken by the Committee on issues related to the reduction of GHG emissions from ships, in particular, the approval of the *Programme of follow-up actions of the Initial IMO Strategy on reduction of GHG emissions from ships up to 2023* (section 7 and annex 9);
- .11 note the action taken by the Committee on issues related to addressing marine plastic litter from ships, in particular, the adoption of resolution MEPC.310(73) on *Action Plan to address marine plastic litter from ships* (section 8);
- .12 note that the Committee instructed the PPR Sub-Committee to finalize the impact assessment methodology for assessing the proposed ban on HFO for use and carriage as fuel by ships in Arctic waters (section 9);
- .13 note the action taken by the Committee on the outcome of PPR 5, in particular, the approval of draft amendments to MARPOL Annex II concerning cargo residues and tank washings of persistent floating products with a high viscosity and/or a high melting point; draft amendments to the IBC and BCH Codes; and draft amendments to MARPOL Annexes I, II, V and VI, and NO_x Technical Code concerning electronic record books (section 11 and annexes 4, 6 and 11 to 15);
- .14 note the action taken by the Committee on the outcome of HTW 5 (section 12);
- .15 note the action taken by the Committee regarding technical cooperation activities for the protection of the marine environment (section 13);
- .16 endorse the Committee's decision to include four new outputs in its biennial agenda for 2018-2019 or its post-biennial agenda (paragraphs 15.10 and 15.18);
- .17 note the status report of the outputs of MEPC for the 2018-2019 biennium (paragraph 15.22 and annex 16);
- .18 note that the Committee approved, subject to concurrent decision by MSC 100, the plan of meeting weeks for MSC and MEPC and their subsidiary bodies for the 2020-2021 biennium (paragraph 15.25);
- .19 note that the Committee agreed for the HTW Sub-Committee to meet every 18 months from HTW 8 onwards, subject to concurrent decision by MSC 100 and future review, depending on the workload of the Sub-Committee (paragraph 15.26);
- .20 note that the Committee approved the items to be included in the agendas of MEPC 74 and MEPC 75 (paragraph 15.28 and annex 17);
- .21 note the Committee's decisions to allow the public greater access to information held at IMO, subject to concurrent decision by MSC 100 (paragraphs 15.29 and 15.30); and
- .22 endorse the holding of the fifth meeting of the Intersessional Working Group on Reduction of GHG Emissions from Ships, from 7 to 10 May 2019 (paragraph 15.35).

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- 19.2 The Maritime Safety Committee, at its 100th session, is invited to:
- .1 note the Committee's decision to consider, in the future, the matter on the regulatory scoping exercise on maritime autonomous surface ships (MASS) when significant progress has been made by MSC on the regulatory scoping exercise (paragraph 2.3);
 - .2 note the Committee's endorsement of the amendments, as approved by MSC 99, to the *List of Certificates and documents required to be carried on board ships, 2017* (paragraph 2.4);
 - .3 take the concurrent decision to instruct the HTW Sub-Committee to consider the request of TC 68 concerning model courses and relevant guidelines (paragraph 2.6);
 - .4 in respect of consistent implementation of regulation 14.1.3 of MARPOL Annex VI:
 - .1 note that the Committee adopted, by resolution MEPC.305(73), amendments to MARPOL Annex VI concerning the prohibition on the carriage of non-compliant fuel oil for combustion purposes for propulsion or operation on board a ship (paragraph 3.15 and annex 1);
 - .2 note that PPR 5 had agreed to a work plan to complete the output on "Consistent implementation of regulation 14.1.3 of MARPOL Annex VI" and the outline of the draft guidelines for consistent implementation of regulation 14.1.3 of MARPOL Annex VI (paragraph 5.17);
 - .3 note that the Committee approved MEPC.1/Circ.878 on *Guidance on the development of a ship implementation plan for the consistent implementation of the 0.50% sulphur limit under MARPOL Annex VI* (paragraph 5.27);
 - .4 consider the outcome of the Intersessional Meeting on Consistent Implementation of Regulation 14.1.3 of MARPOL Annex VI (ISWG-AP 1), concerning the safety implications associated with the use of low-sulphur fuel oil (MEPC 73/5, paragraphs 16 to 23), and take action as appropriate, noting the initiative of industry organizations to develop industry guidance and possibly training material (paragraph 5.28);
 - .5 note that the Committee invited further concrete proposals to MEPC 74 on how to enhance the implementation of regulation 18 of MARPOL Annex VI, in particular on fuel oil quality and reporting of non-availability of compliant fuel oils, including the enhancement of the GISIS MARPOL Annex VI module to support data collection and analysis (paragraph 5.33);
 - .6 note that the Committee urged Parties to MARPOL Annex VI to inform the Organization of the availability of compliant fuel oils in its ports and terminals via GISIS MARPOL Annex VI module well in advance of 1 January 2020, in accordance with regulation 18.1 of MARPOL Annex VI (paragraph 5.36);

- .7 note that the Committee approved circular MEPC.1/Circ.880 on *Reporting of availability of compliant fuel oils in accordance with regulation 18.1 of MARPOL Annex VI* (paragraph 5.36);
- .8 note that the Committee re-established the Correspondence Group on Fuel Oil Quality, and instructed it to finalize the draft guidance on best practice for Member States/coastal States (paragraph 5.78); and
- .9 note that the Committee approved MEPC.1/Circ.875/Add.1 on *Guidance on best practice for fuel oil suppliers for assuring the quality of fuel oil delivered to ships* (paragraph 5.79);
- .5 note that the Committee agreed to consider EEDI phase 3 requirements on the basis of applying the *2013 Interim guidelines for determining minimum propulsion power to maintain the manoeuvrability of ships in adverse conditions* and that the minimum power requirements set out in regulation 21.5 of MARPOL Annex VI should be retained (paragraph 5.50);
- .6 concurrently approve the draft amendments to the International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk (IBC Code) (paragraph 11.6 and annex 11);
- .7 concurrently approve the draft amendments to the Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk (BCH Code) (paragraph 11.7 and annex 12);
- .8 concurrently approve the draft amendments to the *Revised guidelines for the development, review and validation of model courses* (MSC-MEPC.2/Circ.15), as set out in annex 2 to document HTW 5/16 (paragraph 12.2);
- .9 concurrently approve the biennial status report of the CCC Sub-Committee for the 2018-2019 biennium and the provisional agenda for CCC 6 (paragraph 15.20);
- .10 concurrently approve the biennial status report of the III Sub-Committee for the 2018-2019 biennium and the provisional agenda for III 6 (paragraph 15.21);
- .11 concurrently approve the proposed plan of meeting weeks for MSC and MEPC and their subsidiary bodies for the 2020-2021 biennium (paragraph 15.25);
- .12 concurrently agree for the HTW Sub-Committee to meet every 18 months from HTW 8 onwards, subject to future review, depending on the workload of the Sub-Committee (paragraph 15.26);
- .13 In light of the decision of C 120 on various measures to allow the public greater access to information held at IMO, concurrently agree to the following points of procedure (paragraphs 15.29 and 15.30);
 - .1 Member States and international organizations could indicate at the time of submission whether their documents should be released to the public via IMODOCS prior to a meeting, and, in the absence of such an indication, those documents would be kept private prior to the meeting of the Committees;

- .2 documents by the Secretariat would be made publicly available via IMODOCS prior to the meeting, unless the Committees had decided otherwise in advance;
- .3 sub-committees should follow the same practice as agreed for the Committees; and
- .4 all the documents by the Secretariat expected to be submitted under agenda items of PPR 6, CCC 6 and III 6 be made publicly available prior to the sessions subject to concurrent approval by MSC 100.

19.3 The Maritime Safety Committee, at its 101st session, is invited to:

- .1 note that the Committee adopted, by resolution MEPC.310(73), the Action Plan to address marine plastic litter from ships (paragraph 8.20 and annex 10); and
- .2 consider the establishment of a mandatory system for reporting containers lost at sea, taking into account the discussions of the Working Group on Marine Plastic Litter on this matter (MEPC 73/WP.9, paragraphs 30 to 33) and the corresponding action in the Action Plan (resolution MEPC.310(73), annex, table of actions, row 10), subject to supporting proposals being submitted to MSC 101 (paragraph 8.26 and annex 10).

19.4 The Technical Cooperation Committee, at its sixty-ninth session, is invited to:

- .1 note that the Committee instructed the HTW Sub-Committee to consider the request of TC 68 concerning model courses and relevant guidelines, subject to concurrent decision by MSC 100 (paragraph 2.6);
- .2 note that the Committee agreed, in principle, on the need to establish a voluntary multi-donor trust fund to sustain the Organization's technical cooperation and capacity-building activities to support the implementation of the Initial Strategy, and requested the Secretariat, noting the ongoing work by the Council and taking into account comments made, to determine the most appropriate mechanism for the establishment of a such a fund and to prepare draft terms of reference, for consideration by MEPC 74 (paragraph 7.24);
- .3 note that the Committee adopted, by resolution MEPC.310(73), the Action Plan to address marine plastic litter from ships, which, inter alia, invited the Secretary-General to make adequate provisions in ITCP to support relevant follow-up actions of the Action Plan (paragraph 8.20 and annex 10); and
- .4 note that the Committee noted, with appreciation, the information provided on the Organization's technical cooperation activities related to protection of the marine environment which were implemented between 1 January and 31 July 2018 under ITCP and under major projects financed through external sources; expressed appreciation for all the financial and in-kind contributions to ITCP and major projects; and invited Member Governments and international organizations to continue and, if possible, increase their support for IMO technical cooperation activities (section 13).

(The annexes to this report have been issued as documents MEPC 73/19/Add.1)