

MARINE ENVIRONMENT PROTECTION
COMMITTEE
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Agenda item 22

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

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1 INTRODUCTION

1.1 The sixty-fifth session of the Marine Environment Protection Committee was held at IMO Headquarters from 13 to 17 May 2013, under the chairmanship of Mr. Andreas Chrysostomou (Cyprus). The Vice-Chairman of the Committee, Mr. Arsenio Dominguez (Panama), was also present.

1.2 The session was attended by delegations from Members and Associate Members; by representatives from United Nations Programmes, specialized agencies and other entities; by observers from the intergovernmental organizations with agreements of cooperation; and by observers from non-governmental organizations in consultative status; as listed in document MEPC 65/INF.1.

1.3 The Chairman of the Council, Mr. Jeffrey G. Lantz (United States); the Chairman of the Facilitation Committee (FAL), Mr. Yury Melenas (Russian Federation); the Chairman of the Sub-Committee on Bulk Liquids and Gases (BLG), Mr. Sveinung Oftedal (Norway); the Chairman of the Sub-Committee on Ship Design and Equipment (DE), Dipl.-Ing. Anneliese Jost (Germany); the Chairman of the Sub-Committee on Flag State Implementation (FSI), Capt. Dwain Hutchinson (Bahamas); and the Chairman of the Sub-Committee on Stability and Load Lines and on Fishing Vessels Safety (SLF), Mr. Kevin Hunter (United Kingdom); were also present.

The Secretary-General's opening address

1.4 The Secretary-General welcomed participants and delivered his opening address, the full text of which can be downloaded from the IMO website at the following link: <http://www.imo.org/MediaCentre/SecretaryGeneral/Secretary-GeneralsSpeechesToMeetings/Pages/MEPC-65-opening.aspx>

Chairman's remarks

1.5 The Chairman 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.

Information on the Genoa port crash by the delegation of Italy

1.6 The delegation of Italy informed the Committee that on Tuesday, 7 May, at around 11.30 p.m., a 40,594-tonne containership **Jolly Nero** belonging to Ignazio Messina & Co., collided into the 55-m port tower of Genoa, bringing it down, and resulting in the death of eight people (five Coast Guards and three pilots). One Coast Guard Petty Officer is still missing and four officers were injured, two of them seriously.

1.7 It was the stern of the ship that brought down the tower. The crash happened when the ship, which was assisted by two tugboats and with the pilot on its bridge, was backing out of the port. At the time of the incident, the sea was calm, there was no wind and visibility was perfect. Investigations are in progress.

Adoption of the agenda

1.8 The Committee adopted the agenda (MEPC 65/1) and agreed to be guided by the provisional timetable (MEPC 65/1/1, annex 2, as revised), on the understanding that it was subject to adjustments depending on the progress made each day. The agenda, as adopted,

with a list of documents considered under each agenda item, is set out in document MEPC 65/INF.28.

Credentials

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

2 HARMFUL AQUATIC ORGANISMS IN BALLAST WATER

2.1 The Committee noted that the number of Contracting Governments to the "International Convention for the Control and Management of Ships' Ballast Water and Sediments, 2004" (BWM Convention) is currently 36, representing 29.07 per cent of the world's merchant fleet tonnage. The Committee urged those States which have not yet ratified the Convention to do so at their earliest possible opportunity.

CONSIDERATION AND APPROVAL OF BALLAST WATER MANAGEMENT SYSTEMS THAT MAKE USE OF ACTIVE SUBSTANCES

2.2 The Committee noted that the twenty-fourth and twenty-fifth meetings of the GESAMP-BWWG were held from 10 to 14 December 2012 and from 21 to 26 January 2013 respectively, at IMO Headquarters, under the chairmanship of Mr. Jan Linders. During the two meetings, the GESAMP-BWWG had reviewed a total of eight proposals for approval of ballast water management systems that make use of Active Substances, submitted by China, India, the Netherlands (two proposals), Norway, Japan, and the Republic of Korea (two proposals).

Basic Approval

2.3 The Committee, having considered the recommendations contained in annex 6 to the "Report of the twenty-fourth meeting of the GESAMP-BWWG" (MEPC 65/2/9), and the recommendations contained in annexes 4 and 6 to the "Report of the twenty-fifth meeting of the GESAMP-BWWG" (MEPC 65/2/19), agreed to grant Basic Approval to:

- .1 Van Oord Ballast Water Management System proposed by the Netherlands in document MEPC 65/2/2;
- .2 REDOX AS Ballast Water Management System proposed by Norway in document MEPC 65/2/3; and
- .3 Blue Zone™ Ballast Water Management System proposed by the Republic of Korea in document MEPC 65/2/5.

2.4 The Committee invited the Administrations of the Netherlands, Norway and the Republic of Korea to take into account all the recommendations made in the aforementioned reports of the GESAMP-BWWG (annex 6 to the report of the twenty-fourth meeting and annexes 4 and 6 to the twenty-fifth meeting) during the further development of the systems.

2.5 The Committee noted that the GESAMP-BWWG considered that the proposal for Basic Approval of the Van Oord Ballast Water Management System provided sufficient certainty with regard to environmental protection, safety for the ship and human health and that the application fulfilled the requirements of Procedure (G9) for Final Approval. The Committee further noted that the GESAMP-BWWG was of the view that there was

no further need to review the application for Final Approval if the limitations specified in annex 6 to the report of the twenty-fourth meeting of the GESAMP-BWWG (MEPC 65/2/9) are taken into account.

2.6 The delegation of India stated their disagreement with the recommendation in annex 8 of the "Report to the twenty-fifth meeting of the GESAMP-BWWG" (MEPC 65/2/19) not to grant Basic Approval to the HyCator[®]: BWT Reactor System proposed by India in document MEPC 65/2/7, and requested that detailed comments in this regard be considered by the Ballast Water Review Group. The Committee agreed with this request and instructed the Review Group accordingly.

2.7 The Committee noted that the report of the twenty-fifth meeting of the GESAMP-BWWG (MEPC 65/2/19) contained an error with regard to the REDOX AS Ballast Water Management System, which uses medium pressure UV irradiation instead of low pressure as stated in the report.

Final Approval

2.8 The Committee, having considered the recommendations contained in annex 5 to the "Report of the twenty-fourth meeting of the GESAMP-BWWG" (MEPC 65/2/9), as well as the recommendations contained in annexes 5 and 7 to the "Report of the twenty-fifth meeting of the GESAMP-BWWG" (MEPC 65/2/19), agreed to grant Final Approval to:

- .1 AQUARIUS[®] EC Ballast Water Management System proposed by the Netherlands in document MEPC 65/2/1;
- .2 EcoGuardian[™] Ballast Water Management System proposed by the Republic of Korea in document MEPC 65/2/4; and
- .3 OceanDoctor Ballast Water Management System proposed by China in document MEPC 65/2/6.

2.9 The Committee invited the Administrations of China, the Netherlands and the Republic of Korea to verify that all recommendations contained in the reports of the twenty-fourth and twenty-fifth meetings of the GESAMP-BWWG (MEPC 65/2/9, annex 5 for the Netherlands; MEPC 65/2/19, annex 5 for the Republic of Korea and annex 7 for China) are fully addressed prior to the issuance of the Type Approval Certificates.

2.10 The Committee concurred with the recommendation in annex 4 of the "Report of the twenty-fourth meeting of the GESAMP-BWWG" (MEPC 65/2/9) not to grant Final Approval to the Ballast Water Management System with PERACLEAN[®] Ocean (SKY SYSTEM[®]) proposed by Japan in document MEPC 65/2.

Future meetings of the GESAMP-BWWG

2.11 The Committee noted that the next regular meeting of the GESAMP-BWWG (i.e. the twenty-sixth meeting) has been tentatively scheduled from 28 October to 1 November 2013, and invited Members to submit their proposals for approval (application dossiers) and the non-confidential description of their ballast water management systems to MEPC 66 as soon as possible but not later than 13 September.

2.12 The Committee further noted that, recognizing the possibility that more than four proposals may be submitted for review by the Group and subsequent approval by MEPC 66, the GESAMP-BWWG had expressed its availability to have an additional meeting, (GESAMP-BWWG 27) in December 2013 to accommodate as many proposals as possible, provided that all the necessary conditions for organizing such a meeting are met. Any proposal for approval that is not reviewed in the twenty-sixth meeting and the additional meeting (i.e. the twenty-seventh meeting), due to time constraints, will be reviewed at the earliest meeting of the Group after MEPC 66 and reported to MEPC 67 (MEPC 65/2/19, section 3 of the report of the twenty-fifth meeting of the GESAMP-BWWG).

Other matters emanating from the GESAMP-BWWG meetings

2.13 Having considered the recommendations of the GESAMP-BWWG regarding the optimization of the evaluation of the proposals for approval, the Committee agreed to:

- .1 note that, in accordance with the decision by MEPC 63, the revised Methodology for information gathering and conduct of work of the GESAMP-BWWG (BWM.2/Circ.13/Rev.1) has been applied to all submissions for Basic Approval to MEPC 65 and will be applied to subsequent submissions for Final Approval of those systems; and
- .2 remind Administrations of their responsibility to conduct a careful completeness check to ensure that any future applications submitted in accordance with the revised Methodology, satisfy all the provisions in it.

ORGANIZATIONAL ARRANGEMENTS RELATED TO THE EVALUATION AND APPROVAL OF BALLAST WATER MANAGEMENT SYSTEMS

2.14 The Committee recalled that, in considering the report of the Third Stocktaking Workshop of the GESAMP-Ballast Water Working Group, MEPC 62 endorsed the proposal of the GESAMP-BWWG to conduct the stocktaking meetings on a yearly basis.

2.15 The Committee noted that the Fourth Stocktaking Workshop on the activity of the GESAMP-Ballast Water Working Group was held in Busan, the Republic of Korea from 14 to 17 August 2012, under the chairmanship of Mr. Jan Linders, and its outcome has been circulated in document MEPC 65/2/8.

2.16 The Committee noted the outcome of the Fourth Stocktaking Workshop and requested the Review Group to consider the inconsistencies between the Methodology for information gathering and conduct of work of the GESAMP-BWWG (BWM.2/Circ.13/Rev.1) and Circulars BWM.2/Circ.28 and BWM.2/Circ.37 and to advise the Committee accordingly.

2.17 The Committee agreed that any changes to the Methodology should not disadvantage proposals for approval of ballast water management systems submitted in accordance with a previous version of the Methodology, and clarified that proposals submitted for Basic Approval under one version of the Methodology, could be submitted for Final Approval under the same version.

2.18 Referring to paragraph 9 of the outcome of the Fourth Stocktaking Workshop of the GESAMP-BWWG, the observer from ICS noted that the revised Methodology for information gathering and conduct of work of the GESAMP-BWWG (BWM.2/Circ.13/Rev.1) strongly recommends carrying out ecotoxicity testing in three salinities at Basic Approval. The Committee noted that this may be relevant for the Ballast Water Review Group to take into consideration when conducting its future reviews.

2.19 The Committee noted the information provided in document MEPC 65/INF.14 (Secretariat) on the GESAMP-BWWG Database of 18 chemicals most commonly associated with treated ballast water. The Committee was also reminded that no additional supporting information regarding substances in the Database is required in proposals for approval of ballast water management systems that make use of Active Substances. The Committee further noted that the Fourth Stocktaking Workshop of the GESAMP-BWWG decided to increase the number of substances in the Database, to be made available when completed.

REVIEW OF THE AVAILABILITY OF BALLAST WATER TREATMENT TECHNOLOGIES

2.20 The Committee noted the information regarding the latest type-approved ballast water management systems provided in the following documents:

- .1 MEPC 65/INF.2 (Norway) on the Type Approval of the OceanGuard™ Ballast Water Management System;
- .2 MEPC 65/INF.5 (Denmark) on the Type Approval of the DESMI Ocean Guard OxyClean Ballast Water Management System;
- .3 MEPC 65/INF.11 (Netherlands) on the Type Approval of the Wärtsilä AQUARIUS® UV ballast water management system;
- .4 MEPC 65/INF.12 (Norway) on the Type Approval of the KBAL Ballast Water Management System;
- .5 MEPC 65/INF.13 (Norway) on the Type Approval of the CrystalBallast® Ballast Water Management System; and
- .6 MEPC 65/INF.26 (South Africa) on the Type Approval of the Resource Ballast Technologies System Ballast Water Management System,

which increases the total number of type-approved ballast water management systems to 33.

2.21 The Committee thanked the delegations of Denmark, the Netherlands, Norway and South Africa for the information provided and instructed the Ballast Water Review Group to take this information into consideration when conducting its future reviews.

ASSEMBLY RESOLUTION ON APPLICATION OF THE BWM CONVENTION

2.22 The Committee recalled that MEPC 64 had agreed to the establishment of a Correspondence Group on an Assembly resolution regarding the *Application of the International Convention for the Control and Management of Ships' Ballast Waters and Sediments, 2004*, to ease and facilitate the smooth implementation of the Convention.

2.23 In considering the report of the correspondence group (document MEPC 65/2/11 (Japan)), the Committee noted that the group had used Assembly resolution A.1005(25) as a basis for discussions and arrived at three main options to relax the implementation schedule stipulated in regulation B-3 of the Convention.

2.24 The Committee considered document MEPC 65/2/18 (Secretariat) which provided legal comments and advice on the considerations of the correspondence group.

2.25 In the ensuing discussion, a clear majority of delegations expressed their support for option B, proposing an Assembly resolution that recommends an enforcement schedule drawn from one of four sub-options, as it would provide the most practical way forward while avoiding any undesirable legal uncertainty.

2.26 A number of delegations supported sub-option 2 or 3 presented in document MEPC 65/2/11, as these would reschedule enforcement of regulation B-3 of the BWM Convention only for ships constructed before 2012 or 2009 respectively. These delegations were of the view that these sub-options would provide a smoother implementation and reduce the peak of installation demand expected after entry into force of the Convention.

2.27 The majority of delegations, however, expressed their support for sub-option 1, which would reschedule the enforcement of regulation B-3 for all ships constructed before the entry into force of the Convention.

2.28 The delegation of Canada proposed an additional "sub-option 5", based on an enforcement schedule with upcoming dates implemented nationally by one major Administration and requested this to be included in the considerations of the draft Assembly resolution.

2.29 Some delegations stated their preference for adopting a protocol to amend the BWM Convention, as this would provide more legal certainty than an Assembly resolution.

2.30 The Committee, having considered the above views, agreed to request the Review Group to finalize the draft Assembly resolution based on option B and sub-option 1 provided in document MEPC 65/2/11, taking into consideration documents MEPC 65/2/13, MEPC 65/2/18, MEPC 65/2/20 and the enforcement schedule implemented nationally by one major Administration, as suggested by Canada. The Chairman emphasized that he would wish to submit only one text of the draft resolution, preferably without any square brackets, to the twenty-eighth regular session of the Assembly in November 2013.

2.31 The Committee considered document MEPC 65/2/20 (India), commenting on document MEPC 65/2/11 and providing a concept of port-based BWTBoats as an alternative to ballast water management systems on board ships, and decided to refer it to the Ballast Water Review Group for further consideration.

2.32 The Committee further noted document MEPC 65/2/13 (FOEI et al.), which reports on the continuously increasing number of invasive species and calls for early ratification of the BWM Convention.

CONSIDERATION OF THE MANNER OF APPLICATION OF THE BWM CONVENTION

Application of the HSSC

2.33 The Committee considered document MEPC 65/2/15 (Republic of Korea) proposing to apply the Harmonized System of Survey and Certification (HSSC) at the first issuance of International Ballast Water Management Certificates, by reflecting this in the draft Assembly resolution on Application of the BWM Convention or by amending BWM.2/Circ.40 on issuance of Ballast Water Management Certificates prior to entry into force of the BWM Convention and Ballast Water Management Plans approved according to resolution A.868(20).

2.34 Although some delegations shared the concerns of the Republic of Korea, that clarification is needed with regard to the survey and anniversary dates, the Committee agreed that the matter should not be considered before finalization of the draft Assembly resolution. The Committee instructed the Ballast Water Review Group to briefly consider the proposal in document MEPC 65/2/15, and advise the Committee on whether it should be pursued further.

Clarification of "major conversion"

2.35 The Committee recalled that MEPC 64 agreed with the proposal by Japan, not to consider the new installation of ballast water management systems "major conversion" as defined in regulation A.1.5 of the BWM Convention, and instructed the Secretariat to prepare a draft circular in this respect for consideration and approval by the Committee at this session. In considering document MEPC 65/WP.3 containing the draft BWM circular, the Committee also considered document MEPC 65/2/12 (IACS) proposing a further clarification on the application of regulation A-1.5.2.

2.36 The Committee instructed the review group to consider the proposal by IACS together with the draft BWM Circular on clarification of "major conversion" as defined in regulation A-1.5 and advise the Committee as appropriate.

The use of drinking water as ballast water

2.37 The Committee considered document MEPC 65/2/14 (Germany et al.) on the use of drinking water as an additional ballast water management option, proposing an application procedure for approval of the use of Active Substances in drinking water. The Committee, in agreeing that this complex matter requires thorough consideration, noted that the GESAMP Trust Fund may not be the appropriate source for funding possible requests for the advice of the GESAMP-BWWG on this matter and that the decision to supply drinking water to ships remains the prerogative of the port State.

2.38 The Committee requested the review group to consider document MEPC 65/2/14 in detail and advise the Committee accordingly. In this respect, the Committee also instructed the review group to consider the recommendations of the GESAMP-BWWG regarding the Basic Approval of the Van Oord Ballast Water Management System (MEPC 65/2/9, annex 6).

Mobile Offshore Units

2.39 The Committee considered document MEPC 65/2/16 (Singapore) on ensuring compliance of Mobile Offshore Units with the BWM Convention by using the internal circulation method or discharge at the same location, and instructed the Ballast Water Review Group to consider the proposal in detail, bearing in mind that adoption of unified interpretations is to be left to Parties to the Convention, once it enters into force, and advise the Committee accordingly.

CONSIDERATION OF OTHER ASPECTS RELATED TO BALLAST WATER MANAGEMENT AND CONTROL

2.40 The Committee, having considered document MEPC 65/2/10 on the production of a manual entitled "Ballast Water Management – How to do it":

- .1 invited Member States, competent international or regional organizations, and industry programmes to promote and provide, directly or through IMO, support and technical assistance to secure the necessary funding for the

development of the manual "Ballast Water Management – How to do it", in accordance with resolution 3, adopted by the International Conference on Ballast Water Management for Ships (2004); and

- .2 invited the Technical Co-operation Committee to include in the Organization's Integrated Technical Co-operation Programme the provisions to contribute and support the production of such a manual.

2.41 The Committee thanked Transport Canada for its financial support of \$20,000 Canadian dollars for the development of the manual "Ballast Water Management – How to do it".

OUTCOME OF BLG 17 CONCERNING THE BWM CONVENTION

2.42 The Committee noted that the Sub-Committee on Bulk Liquids and Gases held its seventeenth session from 4 to 8 February 2013, and its report on that session has been circulated under the symbol BLG 17/18. The outcome of BLG 17 was reported in document MEPC 65/11/2.

2.43 The Committee considered the action requested of the Committee in document MEPC 65/11/2, which concerns the BWM Convention, paragraphs 2.8 to 2.12, and:

- .1 approved the draft BWM Circular on *Guidance on ballast water sampling and analysis for trial use in accordance with the BWM Convention and Guidelines (G2)*, as set out in annex 5 to document BLG 17/18, and instructed the Secretariat to disseminate it as BWM.2/Circ.42;
- .2 considered and agreed in principle with the recommendations related to the trial period for reviewing, improving and standardizing the BWM Circular on *Guidance on ballast water sampling and analysis for trial use in accordance with the BWM Convention and Guidelines (G2)*, as set out in annex 6 to document BLG 17/18;
- .3 adopted, by resolution MEPC.228(65), *Information reporting on type approved ballast water management systems*, as set out in annex 1;
- .4 approved the draft BWM circular on amendments to the *Guidance for Administrations on the type approval process for ballast water management systems in accordance with Guidelines (G8)* (BWM.2/Circ.28), as set out in annex 8 to document BLG 17/18, and instructed the Secretariat to disseminate it as a BWM.2/Circ.43; and
- .5 approved the draft BWM circular on options for ballast water management for Offshore Support Vessels in accordance with the BWM Convention, as set out in annex 9 to document BLG 17/18, and instructed the Secretariat to disseminate it as BWM.2/Circ.44.

2.44 The delegation of the United States reserved its position on the principle of port States refraining from applying criminal sanctions or detaining ships on the basis of sampling during the trial period of the *Guidance on ballast water sampling and analysis in accordance with the BWM Convention and Guidelines (G2)*.

2.45 The Committee noted the information on sampling of ballast water for compliance, provided in document MEPC 65/2/17 (WWF), and requested BLG to take it into consideration when developing future revisions of the BWM Circular on *Guidance on ballast water sampling and analysis for trial use in accordance with the BWM Convention and Guidelines (G2)*, and FSI to take it into consideration in the development of the *Guidelines for port State control under the BWM Convention*.

OUTCOME OF FSI 21 CONCERNING THE BWM CONVENTION

2.46 The Committee noted that the FSI Sub-Committee held its twenty-first session from 4 to 8 March 2013, and its report on that session has been circulated under the symbol FSI 21/18. The Committee further noted that FSI 21 established a correspondence group under the coordination of Canada to develop the *Guidelines for port State control under the BWM Convention* for finalization at FSI 22 and agreed that the correspondence group would not commence work until after MEPC 65.

2.47 The Committee noted that FSI 21 had invited MEPC 65 to amend the draft terms of reference agreed for the correspondence group as deemed appropriate after its conclusion of matters related to sampling and analysis of ballast water.

2.48 The Chairman of the BLG Sub-Committee proposed that the port State control Guidelines should reflect the trial period of the BWM Circular on *Guidance on ballast water sampling and analysis for trial use in accordance with the BWM Convention and Guidelines (G2)*, and the Assembly resolution regarding the application of the International Convention for the Control and Management of Ships' Ballast Water and Sediments, 2004, expected to be adopted at Assembly 28.

2.49 The Committee instructed the Review Group to consider the terms of reference set out in paragraph 8.8 of document FSI 21/18, taking into account the proposal by the Chairman of BLG, and advise the Committee accordingly.

OUTCOME OF C 109 CONCERNING THE BWM CONVENTION

2.50 The Committee noted that the Council held its 109th session from 5 to 9 November 2012, and its summary of decisions on that session has been circulated under the symbol C 109/D. The outcome of Council 109 has been reported in document MEPC 65/12.

2.51 The Committee noted the outcome of C 109 relevant to ballast water, recognizing that technical issues remain outstanding and urging the MEPC to identify and suggest pragmatic solutions to any impediments, in particular port State control issues, to the early entry into force and implementation of the Convention. The Committee urged Member States and observers to propose pragmatic solutions to any impediments related to the ratification and implementation of the BWM Convention.

ESTABLISHMENT OF THE BALLAST WATER REVIEW GROUP

2.52 The Committee agreed to establish the Ballast Water Review Group with the following terms of reference:

"Taking into consideration the comments and decisions made in plenary, the Ballast Water Review Group is instructed to:

- .1 consider the inconsistencies between the Methodology for information gathering and conduct of work of the GESAMP-BWWG (BWM.2/Circ.13/Rev.1) and Circulars BWM.2/Circ.28 and BWM.2/Circ.37 and propose an appropriate course of action;
- .2 consider, with a view to finalizing the draft Assembly resolution on Application of the International Convention for the Control and Management of Ships' Ballast Water and Sediments, 2004, based on option B and sub-option 1 presented in document MEPC 65/2/11, taking into consideration documents MEPC 65/2/13, MEPC 65/2/18, MEPC 65/2/20, and Canada's request in plenary, to discuss the fact that one major trading Administration has established an implementation schedule with upcoming dates;
- .3 consider the proposal in document MEPC 65/2/15 to achieve a uniform application of the HSSC scheme at the first issuance of International Ballast Water Management Certificates and advise the Committee whether the matter should be pursued further;
- .4 consider amending the text of the draft circular on clarification of "major conversion" as defined in regulation A-1.5 of the BWM Convention as proposed by IACS in document MEPC 65/2/12;
- .5 consider the proposal in document MEPC 65/2/14 on using drinking water as an additional ballast water management option and propose an appropriate course of action;
- .6 consider the proposal in document MEPC 65/2/16 on ballast water management for Mobile Offshore Units and advise the Committee accordingly;
- .7 consider the terms of reference for the correspondence group established at FSI 21, to develop the guidelines for port State control under the BWM Convention, set out in paragraph 8.8 of document FSI 21/18 and advise the Committee accordingly;
- .8 consider document MEPC 65/2/20 (India) providing a concept describing the port-based BWTBoats as an alternative to onboard fitment of ballast water management systems and advise the Committee accordingly;
- .9 consider the comments of India on the recommendation of the GESAMP-BWWG, at its twenty-fifth meeting (document MEPC 65/2/19, annex 8), not to grant Basic Approval to the HyCator[®]: BWT Reactor System and advise the Committee as appropriate; and
- .10 submit a written report on the work carried out, including findings and recommendations, to plenary on Thursday, 16 May 2013."

CONSIDERATION OF THE REPORT OF THE BALLAST WATER REVIEW GROUP

2.53 Having considered the report of the Ballast Water Review Group (MEPC 65/WP.7/Rev.1), the Committee approved it in general and took action as outlined in the following paragraphs.

2.54 The delegation of Denmark, supported by the delegations of Italy, the Republic of Korea and Sweden, made a statement expressing concern with sub-option 1 for the draft Assembly resolution on Application of the BWM Convention. The observer from CESA, in supporting the statement by Denmark, also made a statement regarding their concerns in respect of the consequences of the resolution. The full statements are set out in annex 2

2.55 The delegation of Germany, in informing the Committee of its intention to deposit its instrument of accession to the BWM Convention in June 2013, expressed some concern regarding the legal implications of the draft Assembly resolution on the envisaged accession to the Convention. The full statement is set out in annex 2.

2.56 The delegation of Spain, having not been able to participate in the work of the Review Group, made a general comment regarding the use of drinking water generated on board as ballast water, and expressed its view that the approval of such technologies through Procedure (G9) needs further consideration.

2.57 With regard to the actions requested by the review group, the Committee:

.1 noted that the Group agreed with the proposal by the Chairman of the GESAMP-BWWG that the GESAMP-BWWG would resolve the inconsistencies between the Methodology for information gathering and conduct of work of the GESAMP-BWWG (BWM.2/Circ.13/Rev.1) and Circulars BWM.2/Circ.28 and BWM.2/Circ.37 via changes in the Methodology;

.2 considered the concern expressed in the Group, that clarification is required in the draft Assembly resolution on Application of the International Convention for the Control and Management of Ships' Ballast Water and Sediments, 2004, with respect to renewal dates related to statutory or classification certificates or the anniversary date of delivery of the ship for the purposes of determining the date of the renewal survey, which will effectively determine the date of compliance with regulation D-2 under the approach of the Assembly resolution;

In considering this action item, the delegation of Canada stated that, in considering document MEPC 65/2/15, the Ballast Water Review Group noted that in the draft Assembly resolution, referring to a ballast water management renewal survey that is not harmonized with the renewal survey in other statutory instruments, could lead to a situation where the demand for ballast water management systems will suddenly peak five years after the entry into force of the BWM Convention. The full statement is set out in annex 2.

The delegation of Canada further informed the Committee that to avoid the situation described above, a meeting attended by a number of delegations outside normal working hours had developed the following text to be included as a new sub-paragraph 2.6 in the draft Assembly resolution as set out in annex 1 to document MEPC 65/WP.7/Rev.1:

"2.6 The renewal survey referred to in paragraphs 2.1 to 2.4 is the renewal survey associated with the International Oil Pollution Prevention Certificate under MARPOL Annex I."

After consideration, the Committee agreed with the proposal and instructed the Secretariat to include the additional paragraph 2.6 in the draft Assembly resolution.

The delegation of Spain expressed its concern with regard to linking the compliance of certain provisions of the Convention with the issuance of statutory certificates, as these dates could easily be adjusted, and stated its preference for using fixed dates instead;

- .3 approved the draft Assembly resolution on Application of the International Convention for the Control and Management of Ships' Ballast Water and Sediments, 2004, as set out in annex 3, to be submitted to A 28 for adoption;
- .4 approved the amended draft circular on clarification of "major conversion" as defined in regulation A-1.5 of the BWM Convention and instructed the Secretariat to disseminate it as BWM.2/Circ.45;
- .5 approved the action plan set out in paragraph 24 of document MEPC 65/WP.7/Rev.1, with respect to the use of drinking water as ballast water;
- .6 approved the draft circular on Application of the BWM Convention to Mobile Offshore Units and instructed the Secretariat to disseminate it as BWM.2/Circ.46.

Following a proposal by the delegation of the Bahamas, the Committee instructed the Secretariat to consider including, in the circular, a reference to a definition of Mobile Offshore Units, currently under development by the Sub-Committee on Standards of Training and Watchkeeping;

- .7 approved the amended Terms of Reference for the correspondence group established at FSI 21 to develop the Guidelines for port State control under the BWM Convention, as set out in annex 4 to document MEPC 65/WP.7/Rev.1;
- .8 invited the delegation of India to clarify the issues identified with regard to the BWTBoat concept and keep the Committee informed;
- .9 noted the intention of the delegation of India to submit a new proposal for Basic Approval of the HyCator[®]: BWT Reactor System to a future GESAMP-BWWG meeting.

Consequently, the Committee agreed with the recommendation in annex 8 of the "Report of the twenty-fifth meeting of the GESAMP-BWWG" (MEPC 65/2/19) not to grant Basic-Approval to the HyCator[®]: BWT Reactor System proposed by India in document MEPC 65/2/7; and

- .10 agreed to re-establish the Review Group at MEPC 66 in accordance with the provisions of regulation D-5 of the BWM Convention.

2.58 The Committee thanked the Chairman of the Review Group and its members for their hard work.

3 RECYCLING OF SHIPS

3.1 The Committee recalled that MEPC 62 and MEPC 63 had adopted the following four guidelines referred to in the Hong Kong Convention, which are intended to assist States in the early implementation of the Convention's technical standards:

- *2011 Guidelines for the Development of the Ship Recycling Plan;*
- *2011 Guidelines for the Development of the Inventory of Hazardous Materials;*
- *2012 Guidelines for Safe and Environmentally Sound Ship Recycling; and*
- *2012 Guidelines for the Authorization of Ship Recycling Facilities.*

3.2 The Committee also recalled that MEPC 64, which concluded the work on all the six guidelines required under the Hong Kong Convention, had adopted:

- *2012 Guidelines for the Inspection of Ships under the Hong Kong Convention;*
and
- *2012 Guidelines for the Survey and Certification of Ships under the Hong Kong Convention.*

3.3 The Committee recalled further that MEPC 64 had established an intersessional Correspondence Group on Ship Recycling, which had been instructed to develop threshold values and exemptions applicable to the materials to be listed in Inventories of Hazardous Materials and to consider the need to amend accordingly the *2011 Guidelines for the Development of the Inventory of Hazardous Materials* (Inventory Guidelines), which is where threshold values and exemptions are listed.

Planning of the work

3.4 The Committee had for its consideration five documents submitted under the agenda item, and agreed to deal with the issue of threshold values and exemptions first, followed by proposed amendments to the *2012 Guidelines for the Inspection of Ships under the Hong Kong Convention* (Inspection Guidelines).

Development of threshold values and exemptions

3.5 In considering documents MEPC 65/3 and MEPC 65/INF.9 reporting on the deliberations of the intersessional correspondence group, the Committee noted that the group had made good progress, but that various threshold values and the issue of exemptions as well as certain underlying concepts still had to be discussed.

3.6 The Committee thanked the United States for its contribution as coordinator of the correspondence group and all the members of the group for the work done.

3.7 The Committee then considered document MEPC 65/3/2 (Japan), commenting on the report of the correspondence group and claiming that the establishment of two different sets of threshold values for new and existing ships was inappropriate. Moreover, the Committee noted the arguments put forward by Japan in support of a threshold value for asbestos of 0.1 per cent, and "no threshold value" for ozone-depleting substances. Japan also proposed text for inclusion in the Inventory Guidelines to prohibit the retroactive application of new threshold values to existing IHMs.

3.8 Thereafter, the Committee considered document MEPC 65/3/3 (China) arguing in favour of a threshold level for asbestos of 1 per cent in line with ISO 30007:2010.

3.9 Following some discussion, it was agreed that the two proposed threshold values for asbestos and the other comments on the report of the correspondence group made in document MEPC 65/3/2, should be further discussed in the Working Group on Ship Recycling, if established.

Proposed amendments to the Inspection Guidelines

3.10 In introducing document MEPC 65/3/1 (Spain), the delegation of Spain brought the attention of the Committee to alleged inconsistencies in the *2012 Guidelines for the Inspection of Ships under the Hong Kong Convention* regarding the inspection of the Inventory of Hazardous Materials by port State control officers and the determination of "clear grounds" for a more detailed inspection, and proposed amendments to the relevant paragraphs of the guidelines. The delegation of Spain also suggested replacing the word "inspection" with the more explicit term "port State control" in the current title of the guidelines to avoid any confusion.

3.11 The majority of the delegations who spoke did not favour the proposals made in document MEPC 65/3/1, and it was agreed to instruct the Working Group on Ship Recycling, if established, to conclude the discussion and provide a recommendation to plenary for its consideration.

Progress of ratification

3.12 The Committee welcomed a statement made by the delegation of Norway informing the Committee that the Norwegian Parliament is expected to give its approval, on 14 May 2013, to the planned Norwegian accession to the Hong Kong Convention.

Establishment of the Working Group on Ship Recycling

3.13 Having considered the above issues, the Committee established the Working Group on Ship Recycling under the chairmanship of Ms. Kristine Gilson (United States) with the following terms of reference:

"Taking into account comments, proposals and decisions made in plenary, the Working Group on Ship Recycling is instructed to:

- .1 further develop the threshold values and consider, if appropriate, any exemptions applicable to the materials to be listed in Inventories of Hazardous Materials and consider the need to amend the *2011 Guidelines for the Development of the Inventory of Hazardous Materials* accordingly;
- .2 consider the issues raised in document MEPC 65/3/1 submitted by Spain further and provide a recommendation to the plenary for its consideration, taking into account that the majority of those who spoke did not favour the proposals;
- .3 consider and recommend whether the intersessional Correspondence Group on Ship Recycling should be re-established to further address threshold values and exemptions; and if so, develop draft terms of reference for the group; and
- .4 submit a written report to plenary on Thursday, 16 May 2013."

Report of the Working Group on Ship Recycling

3.14 The Committee considered and approved the report of the working group (MEPC 65/WP.8) in general and, in particular:

- .1 noted the group's recommendation that the *2012 Guidelines for the Inspection of Ships under the Hong Kong Convention* should not be amended as proposed in document MEPC 65/3/1;
- .2 noted the outcome of the group's deliberations on the further development of threshold values and exemptions applicable to the materials that are to be listed in Inventories of Hazardous Materials (paragraphs 7 to 24); and noted the group's recommendation that the *2011 Guidelines for the Development of the Inventory of Hazardous Materials* should be amended accordingly.

In considering this action item, some delegations raised concern as to the compromise taken in relation to the threshold value for asbestos under the Inventory Guidelines, noting at the same time, however, that the issue would be given further consideration by the Maritime Safety Committee;

- .3 instructed the Secretariat to liaise with the International Atomic Energy Agency (IAEA) to seek guidance on the threshold value for radioactive substances, with a view to facilitating further consideration of the issue at a future session of the MEPC;
- .4 invited the Maritime Safety Committee at its ninety-second session to give consideration to a threshold value for asbestos in view of its expertise on the matter; and
- .5 agreed to the re-establishment of the intersessional Correspondence Group on Ship Recycling, under the coordination of the United States¹, and approved the terms of reference for the group as follows:

"On the basis of the outcome of MEPC 65 and the report of the working group (MEPC 65/WP.8), the Correspondence Group on Ship Recycling is instructed to:

- .1 finalize the development of threshold values and exemptions applicable to the materials to be listed in Inventories of Hazardous Materials and amend accordingly the *2011 Guidelines for the Development of the Inventory of Hazardous Materials*; and
- .2 report the outcome of its deliberations to MEPC 66."

1

Coordinator:

Ms. Kris Gilson, REM, CHMM
Office of Environment, MAR-410, Mail Drop #1
Department of Transportation, U.S. Maritime Administration
Southeast Federal Center, West Bldg
1200 New Jersey Ave SE, Washington, DC 20590
Phone: 202.366.1939, Fax: 202.366.5904
Cell: 202.492.0479
E-mail: kristine.gilson@dot.gov

3.15 The Committee thanked the Chairman and the members of the group for their hard work.

4 AIR POLLUTION AND ENERGY EFFICIENCY

4.1 The Committee agreed to consider, in addition to the documents submitted under agenda item 4, document MEPC 65/7/4 concerning IACS unified interpretation MPC 103 on identical replacement engines. The Committee also agreed to consider relevant items from the outcome of the seventeenth session of the BLG Sub-Committee (MEPC 65/11/2), with two relevant documents MEPC 65/11/3 and MEPC 65/11/4, as well as relevant items from the outcome of the fifty-seventh session of the DE Sub-Committee (MEPC 65/11/8).

Order of discussion

4.2 The Committee considered the various issues in the following order:

Draft MEPC resolution

- .1 Draft MEPC resolution on *Promotion of technical co-operation and transfer of technology relating to the improvement of energy efficiency of ships*;

Air pollution from ships

- .2 Outcome of BLG 17 and DE 57:
 - .1 Impact on the Arctic of emissions of black carbon;
 - .2 Equivalent set forth in regulation 4 of MARPOL Annex VI;
 - .3 Amendments to NO_x Technical Code 2008 to certify dual-fuel engines;
 - .4 Regulation 13.2.2 – Replacement of marine diesel engines; and
 - .5 Revision of the Standard specification for shipboard incinerators;
- .3 Review of the status of the technological developments to implement Tier III NO_x standards;
- .4 Emissions of volatile organic compounds (VOC);
- .5 Treatment of ozone-depleting substances used to service ships;
- .6 Sulphur monitoring for 2012;
- .7 Feasibility study on LNG-fuelled short sea and coastal shipping;

Energy efficiency for ships

- .8 Outcome of DE 57 – Application of EEDI regulations to ships with a high-independent icebreaking capability;
- .9 Report of the Correspondence Group on energy efficiency measures for ships;

- .10 EEDI calculation for ro-ro cargo ships (vehicle carriers);
- .11 EEDI calculation for cruise passenger ships having non-conventional propulsion;
- .12 EEDI calculation for LNG carriers;
- .13 EEDI calculation for ro-ro cargo ships and ro-ro passenger ships;
- .14 Guidelines on the method of calculation of the attained EEDI for new ships;
- .15 Calculation of attained EEDI for ships defined in regulations 2.31 to 2.35;
- .16 Application of chapter 4 of MARPOL Annex VI to ships not propelled by mechanical means;
- .17 Speed trial and model test;
- .18 EEDI database;
- .19 IMO model course on energy efficient operation of ships;
- .20 Energy efficiency measures; and
- .21 Further measures to improve the energy efficiency standards of ships.

DRAFT MEPC RESOLUTION ON PROMOTION OF TECHNICAL CO-OPERATION AND TRANSFER OF TECHNOLOGY RELATING TO THE IMPROVEMENT OF ENERGY EFFICIENCY OF SHIPS

4.3 The Committee recalled that MEPC 62 had agreed that capacity-building, technical assistance and transfer of technology were important elements in a future comprehensive regulatory framework to promote energy efficiency in international shipping, and had included regulation 23 of MARPOL Annex VI on promotion of technical co-operation and transfer of technology relating to the improvement of energy efficiency of ships in the amendments adopted by resolution MEPC.203(62). MEPC 62 also agreed to develop an MEPC resolution on this matter (MEPC 62/24, paragraph 6.94).

4.4 The Committee further recalled that MEPC 64 had made significant progress with the finalization of the text and had developed a draft text, which included options for those paragraphs which had not been agreed upon. It was agreed that the text contained in the annex to document MEPC 64/WP.10 would be the Committee's interim agreement on the draft resolution, and that submissions on this issue to MEPC 65 should be restricted to comments relating to the specific paragraphs of the draft resolution. It was further agreed that the Working Group should be re-established at MEPC 65 with the same terms of reference, in order to finalize the text of the draft resolution at this session, with a view to its adoption.

4.5 The Committee considered the following documents relating to the draft MEPC resolution: MEPC 65/4/1 (Secretariat), MEPC 65/4/25 (Russian Federation) and MEPC 65/4/33 (South Africa).

4.6 The Committee agreed to forward all documents on the draft MEPC resolution to a dedicated working group, without general debate in Plenary, as a continuation of the Working Group established during the last session.

Establishment of Working Group on the draft resolution on promotion of technical co-operation and transfer of technology relating to the improvement of energy efficiency of ships

4.7 The Committee established the Working Group on the draft resolution on promotion of technical co-operation and transfer of technology relating to the improvement of energy efficiency of ships under the chairmanship of Mr. Arsenio Dominguez (Panama), with the following terms of reference:

"On the basis of document MEPC 65/4/1, MEPC 65/4/25 and MEPC 65/4/33, and taking into account any comments on the matter, the Working Group on the draft resolution on promotion of technical co-operation and transfer of technology relating to the improvement of energy efficiency of ships is instructed to:

- .1 finalize the text of the MEPC resolution with a view to adoption at this session of the Committee; and
- .2 submit a written report to plenary by Wednesday, 15 May 2013."

Outcome of the Working Group on the draft resolution on promotion of technical co-operation and transfer of technology relating to the improvement of energy efficiency of ships

4.8 The Committee received the report of the Working Group on the draft resolution on promotion of technical co-operation and transfer of technology relating to the improvement of energy efficiency of ships (MEPC 64/WP.9), and noted that it had been unable to agree on the text of the draft resolution.

Outcome of the Chairman's consultations

4.9 With a view to reaching an agreement on the draft MEPC resolution at this session, the Chairman of the Committee conducted informal consultations with a number of delegations.

4.10 The Committee noted that following these informal consultations, the Chairman had circulated a proposal for a final text of the draft MEPC resolution for consideration by the Committee. In introducing the outcome of the informal discussion, the Chairman of the Committee made a statement, as set out in annex 5. Following that, the Committee adopted, by acclamation, resolution MEPC.229(65) on *Promotion of technical co-operation and transfer of technology relating to the improvement of energy efficiency of ships*, as set out in annex 4.

4.11 Many delegations expressed their appreciation for the adoption of the MEPC resolution, and to the fact that in the spirit of cooperation and compromise, the Committee had been able to come to an agreement on this issue.

4.12 The delegations of Australia, Japan and the United States, supported by the delegation of Canada, made a joint statement. In addition, the United States made a further statement. As requested, the statements are set out in annex 5.

4.13 The delegations of Brazil, Canada, Chile, China (supported by Brazil); India, Nigeria, Norway, Peru, Saudi Arabia and Venezuela, made statements on the adoption of the MEPC resolution. Furthermore, a joint statement on the adoption of the MEPC resolution was made by the delegations of Denmark, the Netherlands and the United Kingdom (supported by Cyprus, Germany, Italy, Latvia, Malta, New Zealand, Poland, Spain and Sweden). As requested, the statements are set out in annex 5.

4.14 The Committee noted an intervention by the delegation of Argentina, supported by others, that for the term "enshrined" used in the preamble of the English version of the MEPC resolution, the translation in Spanish should be "consagrados". As requested, the statement is set out in annex 5.

4.15 The Committee further noted an intervention by the delegation of Sweden who pledged a donation to support the implementation of the Organization's technical assistance activities under regulation 23 of MARPOL Annex VI.

4.16 The Secretary-General offered his congratulations and appreciation to the Committee on adopting the MEPC resolution in the IMO spirit of cooperation. In particular, the Secretary-General noted the hard work by the Chairman and Vice-Chairman in negotiating this text and assured the Committee that the Secretariat would do its utmost to support the implementation of the MEPC resolution.

AIR POLLUTION FROM SHIPS

Outcome of BLG 17 and DE 57

4.17 The Committee noted that BLG 17 had considered the impact on the Arctic of emissions of black carbon from international shipping and had further considered guidelines and guidance documents as a consequence of the amended MARPOL Annex VI and the NO_x Technical Code 2008 (BLG 17/18, paragraphs 10 and 11).

4.18 The Committee also noted that DE 57 had considered revision of the Standard specification for shipboard incinerators, black carbon emissions from shipping in polar waters and application of EEDI regulations to ships with a high-independent icebreaking capability (DE 57/25, paragraphs 4, 11.19 to 11.21 and 11.25 to 11.27).

Impact on the Arctic of emissions of black carbon

4.19 The Committee recalled that MEPC 62 had agreed to a work plan for the BLG Sub-Committee to consider the impact on the Arctic of emissions of black carbon from international shipping (MEPC 62/24, paragraph 4.20). Following the recommendation of BLG 16 (BLG 16/16, paragraph 15.7), MEPC 63 had agreed to establish a separate agenda item on this matter at BLG 17 (MEPC 63/23, paragraph 19.4).

4.20 The Committee noted that BLG 17, in accordance with the work plan instructed by MEPC 62, had considered a definition for black carbon emissions from international shipping; measurement methods for black carbon; and possible control measures. BLG 17 agreed that more work would be needed on these matters and re-established a correspondence group on consideration of the impact on the Arctic of emissions of black carbon from international shipping.

4.21 The Committee considered document MEPC 65/4/22 (Norway), providing information on emissions of Black Carbon from shipping within the Arctic, as well as information on emissions from shipping north of 50° North.

4.22 The delegation of the Russian Federation made a statement on the outcome of the working group of the Arctic Council, as set out in annex 6.

4.23 The Committee taking into account that this matter will be considered at BLG 18, agreed to forward document MEPC 65/4/22 to BLG 18 for consideration.

4.24 The Committee considered relevant parts of document MEPC 65/11/4 (China), proposing that the Committee should instruct the BLG Sub-Committee to redefine its task and focus on the impact on the Arctic of black carbon emissions "from shipping in the Arctic" rather than "international shipping", as black carbon emissions are believed to have only regional ramifications, and shipping outside the Arctic will have little impact on this particular region. The statement by China is set out in annex 6.

4.25 The Committee recalled that MEPC 63 had reconsidered the title of the work plan for the BLG Sub-Committee and reconfirmed it was factual and correct. The Committee agreed to retain the title for the work plan, and noted that the outcome would be reported to a future session of the Committee for a decision.

4.26 The Committee recalled that DE 57 had considered document DE 57/11/20 (CSC, EOCI, WWF and Pacific Environment), supporting the inclusion of provisions in the Polar Code that recognize the importance of mitigating Black Carbon emissions from shipping in all polar waters to the maximum extent feasible, notwithstanding the outcome of relevant ongoing work in the MEPC and the BLG Sub-Committee.

4.27 The Committee also recalled that DE 57, having noted that this proposal went beyond the scope of the work currently being carried out by the BLG Sub-Committee but that, in any case, the outcome of their work should be awaited before considering the issue further, agreed to refer document DE 57/11/20 to the Committee for consideration and advice (DE 57/25, paragraph 11.21).

4.28 The Committee agreed that DE Sub-Committee should await the outcome of the BLG Sub-Committee's work on the impact on the Arctic of emissions of Black Carbon from international shipping.

Equivalents set forth in regulation 4 of MARPOL Annex VI

4.29 The Committee recalled that the Bahamas (MEPC.1/Circ.789 in September 2012) and Malta (MEPC.1/Circ.799 in December 2012) had notified the Organization that an alternative compliance method to be applied for selected cruise passenger ships operating in the North American Emission Control Area had been allowed in accordance with the provisions of regulation 4 "Equivalents" of MARPOL Annex VI, which had also been accepted by the United States and Canada.

4.30 The Committee noted that BLG 17 had considered draft guidelines on the assessment and approval of equivalent methods as permitted by MARPOL Annex VI, regulation 4, together with documents BLG 17/11/3 (United States) proposing to include emission-averaging schemes in the draft guidelines, and BLG 17/11/4 (CSC) commenting that emission-averaging schemes carry the potential risk of seriously weakening the integrity of MARPOL Annex VI.

4.31 The Committee also noted that BLG 17 had identified that the draft guidelines include specific issues pursuant to implementation of regulation 4 of MARPOL Annex VI as follows:

- .1 whether equivalent methods can be applied to a group of ships;
- .2 the role of the flag State and port States when approval of an alternative compliance method is under consideration; and
- .3 whether guidance should be generic or applicable to specific alternative compliance methods only, for example the *2009 Guidelines for Exhaust Gas Cleaning Systems* (resolution MEPC.184(59)).

4.32 The Committee further noted that BLG 17 had agreed that these specific issues should be forwarded to the MEPC for further consideration and to request further instructions, as appropriate (BLG 17/18, paragraph 11.24).

4.33 The Committee considered documents MEPC 65/11/3 (United States) providing comments on draft guidelines pertaining to equivalents set forth in regulation 4 of MARPOL Annex VI and not covered by other guidelines, and MEPC 65/11/4 (China) proposing to reject the use of emissions averaging schemes as equivalent methods for emission reductions under regulation 4 of MARPOL Annex VI, regardless of whether it is used for SO_x or NO_x on the basis of averaging emissions from a group of ships, as no substantial difference between the emissions averaging schemes and MBIs exist.

4.34 Several delegations were of the view that a sulphur emission averaging scheme is not a market-based measure, is limited in scope and should be a matter for littoral States to consider and decide upon so negating a need for its inclusion in guidelines pursuant to regulation 4 of MARPOL Annex VI. Other delegations in supporting this view considered the scheme provided flexibility without compromising environmental impact and that strict interpretation of the provisions was a matter for a Party to MARPOL Annex VI.

4.35 Other delegations were of the view that the interpretation of the applicability of the provisions of MARPOL should be limited to a ship, as set out in regulation 14 of MARPOL Annex VI, and not a group or fleet of ships, and that additional benefits resulting from ships going beyond the requirements could be lost with the averaging scheme. Further, one delegation considered the interpretation may contravene regulation 4.4 of MARPOL Annex VI by impairing the environment of another State and there is no provision that allows that State to accept such impairment. Another delegation considered the adoption of a scheme may lead to market distortion in that it would provide a commercial advantage to only those ships granted the equivalence.

4.36 Some delegations supported a proposal by one delegation to develop relevant information and administrative guidance for Parties that have designated an Emission Control Area, rather than include such a scheme in guidelines being developed pursuant to regulation 4 of MARPOL Annex VI.

4.37 The Committee agreed that sulphur emission-averaging schemes should not be accepted under regulation 4 of MARPOL Annex VI. The delegations of the Bahamas, Liberia, Malta and the United States reserved their position.

Amendments to NO_x Technical Code 2008 to certify dual-fuel engines

4.38 The Committee noted that BLG 17 had considered document BLG 17/11/1 (Japan and EUROMOT), proposing amendments to paragraphs 5.3, 5.12.3, 5.12.5, 6.3 and appendix 6 of the NO_x Technical Code 2008 in order to certify dual-fuel engines appropriately, and had agreed that the amendments to the NO_x Technical Code 2008 are necessary.

4.39 The Committee also noted that BLG 17 had developed draft amendments to NO_x Technical Code 2008 to certify dual-fuel engines as set out in annex 13 to document BLG 17/18 and agreed to forward the draft amendments to this session for approval, with a view to subsequent adoption (BLG 17/18, paragraph 11.51).

4.40 The Committee approved the draft amendments to NO_x Technical Code 2008, as set out in annex 7, for circulation, with a view to adoption at MEPC 66.

Regulation 13.2.2 – Replacement of marine diesel engines

Guidelines as required by regulation 13.2.2 of MARPOL Annex VI in respect of non-identical replacement engines not required to meet the Tier III limit

4.41 The Committee recalled that regulation 13.2.2 of MARPOL Annex VI specifies that, for the replacement of a marine diesel engine with a non-identical marine diesel engine on or after 1 January 2016, if it is not possible for such a replacement engine to meet the Tier III standard set forth in paragraph 5.1.1 of this regulation, then that replacement engine shall meet the Tier II standard set forth in paragraph 4 of this regulation. Guidelines are to be developed by the Organization to set forth the criteria of when it is not possible for a replacement engine to meet the Tier III standard.

4.42 The Committee noted that BLG 17 had developed draft Guidelines as required by regulation 13.2.2 of MARPOL Annex VI in respect of non-identical replacement engines not required to meet the Tier III limit, as set out in annex 12 to BLG 17/18, with a view to adoption at this session.

4.43 The Committee adopted, by resolution MEPC.230 (65), 2013 Guidelines as required by regulation 13.2.2 of MARPOL Annex VI in respect of non-identical replacement engines not required to meet the Tier III limit, as set out in annex 8.

Unified interpretation on the time of replacement of an engine

4.44 The Committee noted that BLG 17 considered document BLG 17/14 (IACS), providing its unified interpretation UI MPC 98 relating to "time of the replacement or addition" of an engine for the applicable NO_x Tier standard for the supplement to the IAPP certificate, as referred to in regulation 13.2.2 of MARPOL Annex VI.

4.45 The Committee also noted that BLG 17 developed draft unified interpretation on the basis of IACS UI MPC 98 as set out in annex 14 to BLG 17/18, with a view to approval at this session.

4.46 The Committee approved the draft unified interpretation, as set out in annex 9, and requested the Secretariat to disseminate it as MEPC.1/Circ.812.

Unified interpretation on identical replacement engines

4.47 The Committee recalled that regulation 13.1.1.2 of MARPOL Annex VI specifies that an engine that undergoes a major conversion on or after 1 January 2000 must meet the emission standards in place at the time of the major conversion, except if the engine is replaced by an identical engine.

4.48 The Committee also recalled that BLG 16 had agreed to invite the observer from IACS to develop a unified interpretation for the definition of "identical" marine diesel engine as referred to in regulation 13.1.1.2 of MARPOL Annex VI (BLG 16/16, paragraph 8.35).

4.49 The Committee further recalled that BLG 17 had noted the information provided by the observer from IACS that the IACS unified interpretation on identical engines was available on its website and its intention to submit the unified interpretation to BLG 18 for consideration by the Sub-Committee (BLG 17/18, paragraph 11.45).

4.50 The Committee, having considered document MEPC 65/7/4 (IACS), providing its unified interpretation UI MPC 103 on "identical" replacement engines under regulation 13 of MARPOL Annex VI, approved the unified interpretation, as set out in annex 10 and instructed the Secretariat to disseminate it as MEPC.1/Circ.813.

Revision of the Standard Specification for Shipboard Incinerators

4.51 The Committee recalled that MEPC 64, having noted agreement at DE 57 that the capacity limit for shipboard incinerators should be increased from 1,500 kW to 4,000 kW, had approved MEPC.1/Circ.793 on type approval of shipboard incinerators.

4.52 The Committee noted that, while DE 57 completed its work on the Standard Specification for Shipboard Incinerators (resolution MEPC 76(40), as amended by resolution MEPC.93(45)), some delegations were of the view that this matter should be further considered and questioned the application of relevant sections to passenger and cruise ship only (DE 57/25, paragraph 4.4).

4.53 The Committee also noted that DE 57, having agreed to the need to update the definition section, as well as references to the MARPOL and SOLAS Conventions and IEC Standards in the standard specification for shipboard incinerators, had requested the Secretariat to update the aforementioned definitions and references, and submit a relevant document to MEPC 66 (DE 57/25, paragraph 4.5).

4.54 The Committee, in noting the above-mentioned outcome of DE 57 on the Standard Specification for Shipboard Incinerators, invited interested delegations to forward relevant information to the Secretariat to enable the Secretariat to prepare a document for submission to MEPC 66.

Review of the status of the technological developments to implement Tier III NO_x standards

4.55 The Committee recalled that regulation 13.10 of MARPOL Annex VI calls for a review of the status of technological developments to implement the Tier III NO_x emissions standards which began in 2012 and is to be completed no later than 2013, and that, following consideration and agreement of the Terms of Reference, MEPC 62 established a Correspondence Group on assessment of technological developments to implement the Tier III NO_x emission standards under MARPOL Annex VI to carry out this review (MEPC 62/24, paragraph 4.24).

4.56 The Committee considered documents MEPC 65/4/7 and MEPC 65/INF.10 (United States), providing final report of the correspondence group. The group identified that selective catalytic reduction (SCR), exhaust gas recirculation (EGR) and dual-fuel LNG have the potential to achieve Tier III NO_x limits, either alone or in some combination with each other. The group recommended that the effective date of the Tier III NO_x standards in regulation 13.5.1.1 of MARPOL Annex VI should be retained.

4.57 The Committee considered document MEPC 65/4/27 (Russian Federation), emphasizing that it should be necessary to move the effective date of MARPOL Annex VI, regulation 13, paragraph 5.1, at least five years back (1 January 2021), to carry out another review of the technologies before the effective date of the Tier III standards, by establishing the terms of reference for the review, which will take into account the criteria specified in paragraph 5 of document MEPC 65/4/27. Several delegations supported the proposal by the Russian Federation to amend the effective date. The following concerns with the proposed technologies to comply with the Tier III NO_x standards were identified:

- .1 use of Selective Catalytic Reduction (SCR) in combination with Exhaust Gas Cleaning Systems installed to enable equivalent compliance with the requirements under regulation 14 of MARPOL Annex VI in an Emission Control Area;
- .2 maintenance of the necessary temperature in the SCR reactor under variable loads experienced by ships especially when in port;
- .3 ammonia slip and generation of CO₂ emissions as part of the SCR chemical reaction and methane slip in gas engines may lead to an environmental impact that negates the benefit of reducing NO_x emissions;
- .4 supply of reductants (urea) and catalysts for SCR, and subsequent disposal of used catalysts;
- .5 cost of installation and operation of SCR;
- .6 safety implications for both SCR and use of gas as a fuel by ships other than gas carriers had not been properly considered;
- .7 only one manufacturer had an engine using Exhaust Gas Recirculation (EGR);
- .8 lack of infrastructure to supply gas as a fuel for ships; and
- .9 additional studies were required.

4.58 Several delegations were of the view, in supporting the recommendation of the Correspondence Group, that the effective date of implementation should be retained as 1 January 2016 for the reasons set out in the report of the Correspondence Group. Other delegations expressed the view that:

- .1 dual-fuel engines were being increasingly fitted to new ships to enable compliance with the requirements under regulation 14 of MARPOL Annex VI;
- .2 several hundred ships already had SCR fitted with considerable operational experience gained;

- .3 many of the points of concern raised for SCR had already been addressed by SCR equipment manufacturers;
- .4 use of gas as a fuel reduced CO₂ emissions by up to 20 per cent when compared to other fuels;
- .5 the matter of competitiveness of ports was for individual coastal States to consider; and
- .6 with over two and half years until the effective date, more work and development will be undertaken to address the other concerns expressed.

4.59 The Committee agreed to the proposal for the effective date to be amended to 1 January 2021. The following Member States reserved their position on the proposed amendment: Canada, Denmark, Finland, France, Germany, Italy, Japan, Norway, the United Kingdom and the United States.

4.60 The Committee agreed to the conclusion by the Correspondence Group that engines fuelled solely by gaseous fuels, e.g. pure LNG, should be required to comply with the provisions of regulation 13 of MARPOL Annex VI. In this regard, the Committee invited interested delegations to submit proposed draft amendments to MARPOL Annex VI for consideration by MEPC 66, with a view to approval.

4.61 The Committee noted that to enact the proposed amendments, it would need to adopt amendments to the provisions of MARPOL Annex VI. The Committee instructed the Secretariat to prepare the draft amendments, including any consequential amendments, for consideration by the Committee, with a view to approval at this session.

4.62 The Committee noted that as it had agreed to amend the effective date for the Tier III NO_x emission standard then the proposals set out in the documents relating to certain yachts used for recreational purposes: MEPC 65/4/8, MEPC 65/INF.15, (ICOMIA and SYBAss) and MEPC 65/4/32 (Marshall Islands, Cook Islands, ICOMIA and SYBAss), could be noted and agreed these documents should be held in abeyance. As requested, a statement made by the observer from ICOMIA is set out in annex 11.

4.63 The delegation of the United States expressed the view that as the North American Emission Control Area and United States Caribbean Sea Emission Control Area had already been designated for the control of NO_x emissions to the Tier III standard, and entered into force, the effective date of 1 January 2016 should be retained for those Emission Control Areas. Furthermore, the United States proposed an additional amendment that would provide for the agreed amendment of the effective date to 1 January 2021 to be applicable to any future ECA designated to control NO_x emissions to the Tier III standard, and also apply to certain categories of recreational yacht to address the concerns set out in document MEPC 65/4/32. As requested, the statement by the United States, supported by Belgium, Canada, Finland, France, the Republic of Korea and Sweden, is set out in annex 11.

4.64 Having considered the draft amendments prepared by the Secretariat (MEPC 65/WP.14), the Committee approved them, as set out in annex 12, for circulation, with a view to adoption at MEPC 66.

4.65 As requested, a statement by the observer from EUROMOT is set out in annex 11.

Emissions of volatile organic compounds (VOC)

4.66 The Committee recalled that regulation 15 of MARPOL Annex VI specifies that, if the emissions of VOCs from a tanker are to be regulated in a port or ports or terminal or terminals under the jurisdiction of a Party, they shall be regulated in accordance with the provisions of this regulation.

4.67 The Committee considered documents MEPC 65/4/20 (Norway) presenting the main mechanism for formation of volatile organic compounds (VOC) and estimates of global emissions, and MEPC 65/4/21 (Norway) proposing to consider improvements to IMO regime on the control of VOC emissions from ships.

4.68 Some delegations supported the proposal by Norway to consider improvements on the control of VOC emissions from ships. Other delegations expressed the view that they could not find any compelling need to commence the discussion on the VOC emission from ships at this stage.

4.69 The Committee agreed to continue to consider this matter at its next session and invited interested delegations to submit further proposals.

Treatment of ozone-depleting substances used to service ships

4.70 The Committee recalled that MEPC 64 had agreed to request the Secretariat to continue liaising with the Ozone Secretariat, and provide an update on the work of the Montreal Protocol of the treatment of ozone-depleting substances used by international shipping, for consideration at this session to facilitate the Committee's deliberation of this issue.

4.71 The Committee noted that, as reported in document MEPC 65/4/2 (the Secretariat), the twenty-fourth Meeting of the Parties to the Montreal Protocol was held in November 2012 and adopted its decision XXIV/9, in which no specific conclusion has been obtained, and this issue will be reconsidered at the thirty-third meeting of the Open-ended Working Group to be held in June 2013.

4.72 The Committee noted the information provided and requested the Secretariat to continue liaising with the Ozone Secretariat, and provide an update on the work of the Montreal Protocol, for consideration at its next session to facilitate the Committee's deliberation of this issue.

Sulphur monitoring for 2012

4.73 The Committee recalled that, in accordance with regulation 14.2 of MARPOL Annex VI and the *2010 Guidelines for monitoring the worldwide average sulphur content of fuel oils supplied for use on board ships* (resolution MEPC.192(61)), the results of sulphur monitoring should be presented to a subsequent session of the Committee every year (MEPC 65).

4.74 The Committee noted the information provided in document MEPC 65/4/9 (Secretariat), on the outcome of the monitoring of the worldwide average sulphur content of marine fuel oils supplied for use on board ship through 2012, which shows the average sulphur content of residual fuel oil (2.51%) and distillate fuel oil (0.14%) for 2012.

Feasibility study on LNG-fuelled short sea and coastal shipping

4.75 The Committee noted document MEPC 65/INF.4 (Secretariat), providing the final report of a Feasibility Study on Liquefied Natural Gas (LNG) Fuelled Short Sea and Coastal Shipping in the Wider Caribbean Region.

ENERGY EFFICIENCY FOR SHIPS

4.76 The Committee noted that amendments to MARPOL Annex VI incorporating a new chapter 4 on regulation of energy efficiency for ships, which makes the EEDI mandatory for new ships and the SEEMP for all (new and existing) ships, entered into force on 1 January 2013.

4.77 The Committee also noted that Member States that are non-Parties to the amended MARPOL Annex VI cannot issue the International Energy Efficiency Certificate (IEEC); however, a "Statement of Voluntary Compliance" is an acceptable approach before a country becomes a Party to the amended MARPOL Annex VI if their ships are fully compliant with the requirements. This is recognised within the shipping industry and by both flag States and enforcement authorities.

Outcome of DE 57 – Application of EEDI regulations to ships with a high-independent icebreaking capability

4.78 The Committee recalled that DE 57 had considered documents DE 57/11/8 (Finland and Sweden) and DE 57/11/16 (Canada), showing the result of an analysis that recent higher ice-class cargo ship designs have considerably more installed power than will be permissible in future under the EEDI regulations. DE 57 recognized the need to consider the possible development of correction coefficients or the possible exemption of ice class A ships from the EEDI requirements, taking into account the relatively small number of such ships (DE 57/25, paragraphs 11.25 and 11.26).

4.79 The Committee noted that DE 57 had agreed to ask the Committee for advice on the issue of the application of EEDI regulations to ships with a high-independent icebreaking capability (DE 57/25, paragraph 11.27).

4.80 The delegation of Finland, supported by Canada, expressed the view that the current EEDI regulations would prevent the construction of new cargo ships having ice-breaking capability in the future, i.e. category A ships with ice breaking capability of about 1.0m level ice or more, even if the current ice-class correction factors in the EEDI framework are used. Since the number of ice-breaking ships is rather small and they are expensive to build, compared with ships without independent ice-going capability, any of the solutions proposed in document DE 57/11/8 would not impact the effective implementation of the EEDI regulations.

4.81 The Committee agreed to exempt cargo ships having ice-breaking capability from the EEDI requirements, and instructed the Working Group to develop a draft amendment to MARPOL Annex VI with a view to approval at this session.

Report of the correspondence group on energy efficiency measures for ships

4.82 The Committee recalled that MEPC 64, recognizing the compelling need to develop various guidelines as soon as possible, had established an intersessional Correspondence Group on Energy Efficiency Measures for Ships, under the coordination of Japan.

4.83 The Committee considered documents MEPC 65/4/3 and MEPC 65/INF.20 (Japan), providing a report of the Correspondence Group on Energy Efficiency Measures for Ships. The correspondence group further developed a draft 2013 interim minimum power Guidelines with some options and square brackets (annex 1), a draft Guidance on treatment of innovative energy efficiency technologies for calculation and verification of the attained EEDI with some square brackets (annex 2), and the revised version of the draft f_w Guidelines (annex 3).

Draft 2013 Interim Guidelines for determining minimum propulsion power to maintain the manoeuvrability of ships in adverse conditions

4.84 The Committee recalled that MEPC 64 had approved a draft MEPC-MSC Circular for the *Interim Guidelines for determining minimum propulsion power to maintain the manoeuvrability of ships in adverse conditions*, subject to concurrent decision by MSC 91. After MEPC 64, the Chairman of the Working Group submitted document MEPC 65/4 on the second part of the report of the Working Group, which included a set of proposed numbers in table 1 of the draft MSC-MEPC circular.

4.85 The Committee also recalled that MSC 91, in November 2012, had approved the *Interim Guidelines for determining minimum propulsion power to maintain the manoeuvrability of ships in adverse conditions*, as MSC-MEPC.2/Circ.11 (MEPC 65/12/2, paragraph 2.1).

4.86 The Committee noted that the correspondence group established by MEPC 64 agreed that the definition of "smaller vessel" and "adverse condition" needed to be considered further, and therefore, agreed to insert some options for the definition of adverse conditions in square brackets for consideration at this session.

4.87 The Committee agreed to forward document MEPC 65/4/28 (Denmark and Japan) and the draft 2013 interim Guidelines set out in annex 1 to document MEPC 65/4/3 to the Working Group for further consideration.

Draft 2013 Guidance on treatment of innovative energy efficiency technologies for calculation and verification of the attained EEDI

4.88 The Committee noted that the correspondence group further developed draft 2013 Guidance on treatment of innovative energy efficiency technologies for calculation and verification of the attained EEDI, however, the draft Guidance set out in annex 2 to document MEPC 65/4/3 still had square brackets in paragraph 1.5 on future revision of the Guidance and paragraph 5 on average weighted value.

4.89 The Committee agreed that the draft 2013 Guidance set out in annex 2 to document MEPC 65/4/3 be forwarded to the working group for further consideration.

Draft 2013 Guidelines for the calculation of the coefficient f_w for decrease in ship speed in a representative sea condition

4.90 The Committee recalled that MEPC 64 had approved interim Guidelines for the calculation of the coefficient f_w for decrease in ship speed in a representative sea condition for trial use (MEPC.1/Circ.796).

4.91 The Committee noted that the correspondence group further developed draft 2013 Guidelines for the calculation of the coefficient f_w for decrease in ship speed in a representative sea condition, however, substantial amendments were not made as sufficient data/information was not submitted to the Group.

4.92 The Committee agreed to forward documents MEPC 65/4/11 and MEPC 65/INF.21 (China) and MEPC 65/4/29 (Japan), as well as draft 2013 Guidelines as set out in annex 3 to document MEPC 65/4/3, to the Working Group for further consideration.

EEDI calculation for ro-ro cargo ships (vehicle carriers)

4.93 The Committee recalled that the Working Group at MEPC 64 had agreed to consider further documents MEPC 64/4/6 and MEPC 64/4/25 (Denmark, Japan, Norway and WSC), proposing EEDI calculation method for ro-ro cargo ships (vehicle carriers) at this session to finalize the draft amendment to regulation 21 of Chapter 4 of MARPOL Annex VI and related Guidelines (MEPC 64/WP.11, paragraph 12.4).

4.94 The Committee agreed to instruct the Working Group to continue considering the EEDI calculation method for ro-ro cargo ships (vehicle carriers), using documents MEPC 64/4/6 and MEPC 64/4/25 as a basis.

EEDI calculation for cruise passenger ships having non-conventional propulsion

4.95 The Committee recalled that the Working Group at MEPC 64 had agreed to consider further documents MEPC 64/4/19 and MEPC 64/4/34 (CLIA), proposing an EEDI calculation method for cruise passenger ships having non-conventional propulsion at this session (MEPC 64/WP.11, paragraphs 12.11 to 12.13).

4.96 The Committee agreed to forward document MEPC 65/4/6 (CLIA) to the working group and instructed it to consider this matter further at this session.

EEDI calculation for LNG carriers

4.97 The Committee recalled that the Working Group at MEPC 64 supported, in principle, to have separate reference lines for LNG carriers and gas tankers other than LNG carriers, and considered the inclusion of both direct drive diesel and non-conventional propulsion systems (MEPC 64/WP.11, paragraphs 12.15 to 12.17).

4.98 The Committee agreed that documents MEPC 65/4/12 (Republic of Korea) and MEPC 65/4/13 (Denmark, Japan, Liberia and SIGTTO) be forwarded to the Working Group for further consideration.

EEDI calculation for ro-ro cargo ships and ro-ro passenger ships

4.99 The Committee recalled that the Working Group at MEPC 64 supported in principal the proposal as outlined in document MEPC 64/4/14 (Germany, Sweden and CESA) with regard to the correction factors for use in calculation of the attained EEDI and method of calculation of reference line for ro-ro passenger ships and ro-ro cargo ships other than vehicle carriers, and agreed to finalize draft amendments to regulation 21 of MARPOL Annex VI at this session in accordance with the work plan. The Working Group invited interested delegations to further refine the proposal (MEPC 64/WP.11, paragraph 12.6).

4.100 The Committee considered document MEPC 65/4/4 (Germany, Sweden, CESA and INTERFERRY), providing fine-tuning of the proposal for the inclusion of ro-ro cargo and ro-ro passenger ship types into the EEDI framework.

4.101 The Committee considered document MEPC 65/4/18 (Denmark and Japan), proposing to reconsider the decision taken at MEPC 64 to use the EEDI calculation method for ro-ro passenger and ro-ro cargo ships set out in MEPC 64/4/14 (Germany, Sweden and CESA) as the basis for future consideration. The co-sponsors also proposed to use the EEDI calculation method for ro-ro passenger and ro-ro cargo ships set out in document MEPC 64/4/9 (Denmark, Japan and Norway).

4.102 Some delegations expressed the view that the correction factor f_{jRoRo} proposed in document MEPC 65/4/4 could lead to ship designs with more power but a lower EEDI and so is against the fundamental principle of the EEDI and that a correction factor depending on the ship's speed should not be included in the attained EEDI formula.

4.103 The majority supported the EEDI calculation method for ro-ro passenger and ro-ro cargo ships proposed in document MEPC 65/4/4 and consequently, the Committee instructed the Working Group to finalize the calculation method with a view to adoption at this session.

Guidelines on the method of calculation of the attained EEDI for new ships

Correction factor for general cargo ships

4.104 The Committee recalled that the Working Group at MEPC 64 supported, in principle, documents MEPC 64/4/18 and MEPC 64/INF.9 (Netherlands) proposing three correction factors to enable a more consistent comparison of the wide variety of individual types of ships within the general cargo ships smaller than 20,000 DWT, and agreed to continue considering the measures for general cargo ships with a view to finalization at this session (MEPC 64/WP.11, paragraph 12.22).

4.105 The Committee considered documents MEPC 65/4/5 and MEPC 65/INF.8 (Netherlands) proposing to include three correction factors in the EEDI calculation guidelines to overcome the challenges in indexing of ships which fall under the requirements for general cargo ships smaller than 20,000 DWT.

4.106 Some delegations were of the view that a correction factor f_j for general cargo ships proposed in document MEPC 65/4/5 would be against fundamental principle of the EEDI, while the majority of delegations supported the inclusion of the three correction factors proposed in document MEPC 65/4/5.

4.107 The Committee instructed the Working Group to finalize correction factors for general cargo ships based on the proposal in document MEPC 65/4/5.

Correction factor for shallow-draft cargo ships

4.108 The Committee considered document MEPC 65/4/17 (Greece) proposing that an appropriate correction factor should be included in the EEDI calculation for shallow-draft cargo ships with L/B and B/T ratios outside a prescribed range in order to relax unfavourable EEDI penalties on these ships.

4.109 The Committee noted the information provided by the delegation of Greece and invited interested delegations to submit concrete proposals for an appropriate correction factor for shallow-draft cargo ships to a future session.

Ships with dual-fuel engines

4.110 The Committee instructed the Working Group to review document MEPC 65/4/5 (China), emphasizing that the requirements for EEDI calculation and verification for ships with dual-fuel engines are uncertain and need to be clarified for uniform understanding and application of the EEDI.

Calculation of attained EEDI for ships defined in regulations 2.32 to 2.35

4.111 The Committee considered document MEPC 65/4/24 (Germany), seeking clarification on the legal compulsion to calculate an attained EEDI for ship type mentioned in regulations 2.32 to 2.35, taking into account that an exact way for the attained EEDI calculation has not yet been established for them. The delegation of Germany proposed to refrain from attained EEDI calculation for ship types that are not yet fully covered by the 2012 EEDI calculation Guidelines until these Guidelines would be amended to cover these ship types.

4.112 The Committee noted the difficult position for those seeking to calculate the attained EEDI for ships types that calculation methods of the attained EEDI and the reference lines were still to be developed. The Committee agreed that this matter should be further considered after obtaining the outcome of such developments at this session.

Application of chapter 4 of MARPOL Annex VI to ships not propelled by mechanical means

4.113 The Committee recalled that MEPC 64 had approved the unified interpretation of the application of SEEMP to platforms and drilling rigs by MEPC.1/Circ.795, in which platforms (including FPSOs and FSUs) and drilling rigs regardless of their propulsion, are excluded from ships required to keep on board a SEEMP.

4.114 The Committee also recalled that, while considering the above unified interpretation, the Working Group, at MEPC 64, had noted that it would be necessary to amend regulation 19 of MARPOL Annex VI to identify that the requirements under chapter 4 of MARPOL Annex VI do not apply to platforms and drilling rigs (MEPC 64/WP.11, paragraph 5.6).

4.115 The Committee considered document MEPC 65/4/14 (IACS), highlighting that ships without any propulsion units/generators or any other power driven device on board (e.g. deck cargo barges) would not need to be provided with a SEEMP and, as a consequence, no IEE Certificate needs to be issued. The observer from IACS sought clarification whether non self-propelled barges, which are fitted with a generator and/or pump engines (e.g. tank barges), should also not be required to keep a SEEMP on board and not be issued with an IEEC as MEPC 64 had decided that FPSOs/FSUs/MODUs would not need to keep on board a SEEMP. The observer from IACS proposed to develop a unified interpretation on this matter.

4.116 The Committee considered document MEPC 65/4/16 (Norway), proposing to amend regulation 19 of MARPOL Annex VI to specify that the provisions of chapter 4 shall not apply to ships not propelled by mechanical means, such as platforms, drilling rigs and barges, etc.

4.117 The delegation of the Republic of Korea highlighted that it submitted document MEPC 64/7/6 proposing to identify unmanned and non-self-propelled barges and to develop a method to exempt survey and certification requirements relating to each annex of MARPOL Convention for such ships, which will be further considered by the FSI Sub-Committee.

4.118 The Committee agreed to develop amendments to regulation 19 of MARPOL Annex VI based on document MEPC 65/4/46 as well as a unified interpretation based on document MEPC 65/4/14 as such unified interpretation would be necessary until the entry into force of the said amendments to regulation 19, and instructed the Working Group to develop them at this session.

Speed trial and model test

4.119 The Committee recalled that the Working Group, at MEPC 64, had noted that the revised ITTC method for analysis of speed standard in document MEPC 64/INF.6 (ITTC) contained one method only (direct power method), and the correction method for sea current stated in document MEPC 64/4/15, paragraph 3.5 (ITTC) is not included in document MEPC 64/INF.6 (MEPC 64/WP.11, paragraph 11.3).

4.120 The Committee also recalled that the Working Group, at MEPC 64, had agreed to invite ISO to revise, as soon as possible, ISO 15016:2002, taking into account documents MEPC 64/4/15 and MEPC 64/INF.6 (MEPC 64/WP.11, paragraph 11.4).

4.121 The Committee agreed to forward documents MEPC 65/4/15 (Republic of Korea), MEPC 65/4/23 (ISO), MEPC 65/4/26 (Norway) and MEPC 65/INF.7 (ITTC) to the Working Group and instructed the Group to consider this matter further at this session.

EEDI database

4.122 The Committee considered document MEPC 65/4/31 (IACS), proposing the development of an "EEDI database" in order to support the reviews of the implementation of the EEDI provisions as detailed in regulation 21.6 of MARPOL Annex VI. The observer from IACS highlighted the challenges that would need to be addressed, and proposed a dataset that would be used to populate the database, as well as how the database could be administered and managed.

4.123 Several delegations supported the establishment of the database in principle, but expressed concern about the protection of the intellectual property rights and commercially sensitive information. Some delegations were of the view that, due to the confidentiality of the information, the database should not be established by any commercial entities. Other delegations were of the view that if the database was established under the management of the Secretariat, this might increase the administrative burden and additional cost of the Secretariat, whilst the Organization was considering how to reduce the cost of the Secretariat.

4.124 The observer from IACS confirmed its willingness to participate in the submission of the specified data to populate such a database at no cost to the Organization, unless otherwise instructed by the Administration.

4.125 The Committee, in noting the obligation on the Organization to undertake a review in phases 1 and 2 of the EEDI, agreed to continue discussion on this matter at its next session, and invited interested delegations to submit documents.

IMO model course on energy efficiency operation of ships

4.126 The Committee recalled that MEPC 64 had agreed to request the Secretariat to forward a draft IMO Model Course on energy-efficient operation of ships to a validation group for Model Courses under the STCW Convention to review and provide comments (MEPC 64/23, paragraph 4.89).

4.127 The Committee noted that the validation group for Model Courses under the STCW Convention had provided comments on the draft IMO Model Course. Taking into account these comments from the validation group, the Secretariat adjusted the draft Model Course by adding some paragraphs in the relevant sections, as set out in the annex to document MEPC 65/INF.17.

4.128 The Committee noted the updated version of the draft IMO Model Course and instructed the Secretariat to publish it as a final version of IMO Model Course on energy-efficient operation of ships.

Energy efficiency measures

4.129 The Committee noted document MEPC 65/INF.23 (Canada), providing information on energy generating devices fuelled by shipboard waste that have better emissions than conventional incinerators and are designed to be acceptable for use in port.

Establishment of Working Group on Air Pollution and Energy Efficiency

4.130 The Committee established the Working Group on Air Pollution and Energy Efficiency, under the Chairmanship of Mr. Koichi Yoshida (Japan), with the following terms of reference:

"Taking into account relevant documents as well as comments and decisions made in plenary, the Working Group on Air Pollution and Energy Efficiency is instructed to:

- .1 develop draft amendments to MARPOL Annex VI for exemption of cargo ships having ice-breaking capability from chapter 4 of MARPOL Annex VI;
- .2 further develop and, if possible, finalize the draft 2013 Interim Guidelines for determining minimum propulsion power to maintain the manoeuvrability of ships in adverse conditions, using annex 1 to document MEPC 65/4/3 as a basis;
- .3 further develop and, if possible, finalize the draft 2013 Guidance on treatment of innovative energy efficiency technologies for calculation and verification of the attained EEDI, using annex 2 to document MEPC 65/4/3 as a basis;
- .4 further develop and, if possible, finalize the draft 2013 Guidelines for the calculation of the coefficient f_w for decrease in ship speed in a representative sea condition, using annex 3 to document MEPC 65/4/3 as a basis;
- .5 finalize the EEDI calculation method for ro-ro cargo ships (vehicle carriers) and the draft amendments to MARPOL Annex VI, using documents MEPC 64/4/6 and MEPC 64/4/25 as a basis, for approval at this session;

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- .6 finalize the EEDI calculation method for cruise passenger ships having non-conventional propulsion and the draft amendments to MARPOL Annex VI, using documents MEPC 64/4/19, MEPC 64/4/34 and MEPC 65/4/6 as a basis;
 - .7 further develop the EEDI calculation method for LNG carriers and the draft amendments to MARPOL Annex VI, using documents MEPC 64/4/26, MEPC 65/4/12 and MEPC 65/4/13 as a basis;
 - .8 finalize the EEDI calculation method for ro-ro cargo and ro-ro passenger ships using document MEPC 65/4/4 as a basis, for approval at this session;
 - .9 review and finalize correction factors for general cargo ships using document MEPC 65/4/5 as a basis, for approval at this session;
 - .10 review document MEPC 65/4/10 on EEDI calculation and verification for ships with dual-fuel engines;
 - .11 develop draft amendments to regulation 19 and unified interpretation MEPC.1/Circ.795 to specify that the provisions of chapter 4 of MARPOL Annex VI shall not apply to ships not propelled by mechanical means using documents MEPC 65/4/14 and MEPC 65/4/16 as a basis;
 - .12 review documents MEPC 65/4/15, MEPC 65/4/23, MEPC 65/4/26 and MEPC 65/INF.7 on speed trial and model test; and
 - .13 submit a written report to plenary on Friday, 17 May 2013."

Outcome of the Working Group on Air Pollution and Energy Efficiency

4.131 The Committee received the report of the Working Group on Air Pollution and Energy Efficiency (MEPC 65/WP.10). In his introduction of the report, the Chairman of the Working Group, Mr. Koichi Yoshida (Japan), emphasized that the Working Group had:

- .1 prepared draft amendments to chapter 4 of MARPOL Annex VI, for approval at this session with a view to adoption at the next session, that extend the provisions under regulation 21 on "Required EEDI" to the following ship types: cruise passenger ships having non-conventional propulsion, ro-ro cargo and ro-ro passenger ships, ro-ro (vehicle carriers) and LNG carriers;
- .2 finalized, for adoption at the next session, amendments to the EEDI calculation Guidelines for, respectively, cruise passenger ships having non-conventional propulsion, ro-ro cargo and ro-ro passenger ships, LNG carriers and to include correction factors for general cargo ships;
- .3 finalized, for adoption at this session, amendments to resolution MEPC.215(63), *Guidelines for calculation of reference lines for use with the Energy Efficiency Design Index (EEDI)*;
- .4 finalized, for adoption at this session, the *2013 Interim Guidelines for determining minimum propulsion power to maintain the manoeuvrability of ships in adverse conditions*;

- .5 finalized, for approval at this session, the *2013 Guidance on treatment of innovative energy efficiency technologies for calculation and verification of the attained Energy Efficiency Design Index*;
- .6 finalized, for adoption at this session, amendments to resolution MEPC.214(63), the *2012 Guidelines on survey and certification of the energy efficiency design index (EEDI), as amended*;
- .7 finalized, for adoption at this session, the *2013 Guidelines for calculation of reference lines for use with the Energy Efficiency Design Index (EEDI) for cruise passenger ships having non-conventional propulsion*;
- .8 agreed that the respective datasets used to calculate the reference lines for LNG carriers, ro-ro (vehicle carriers), ro-ro cargo, ro-ro passenger and cruise passenger ships having non-conventional propulsion should be submitted to the Secretariat for the purposes of transparency in accordance with the Guidelines for calculation of reference lines for use with EEDI; and
- .9 continued work in accordance with the work plan agreed at MEPC 63 and updated the work plan for approval at this session.

4.132 The Committee noted corrections to document MEPC 65/WP.10 as follows:

- .1 paragraph 11.3 is replaced by the following:

"11.3 The group noted that the original proposal to only apply the correction factors to general cargo ships of less than 20,000 DWT presented the risk of the design of "paragraph ships" and that further analysis had indicated that extension of the correction factor to the whole fleet would make minimal difference to the outcome."
- .2 in annex 1, paragraph 1, the definition of "Gas carrier" is replaced by the following:

"26 "Gas carrier" means a cargo ship, other than LNG carrier as defined in paragraph 38, constructed or adapted and used for the carriage in bulk of any liquefied gas."

4.133 The Committee also noted corrections to document MEPC 65/WP.10 as set out in document MEPC 65/WP.10/Corr.1 as follows:

- .1 in annex 1, paragraph 3*bis* is added to provide an amendment to regulation 20.1 as follows:
 - "1 The attained EEDI shall be calculated for:
 - .1 each new ship;
 - .2 each new ship which has undergone a major conversion; and

- .3 each new or existing ship which has undergone a major conversion, that is so extensive that the ship is regarded by the Administration as a newly constructed ship which falls into one or more of the categories in regulations 2.25 to 2.35, 2.38 and 2.39 of this annex. The attained EEDI shall be specific to each ship and shall indicate the estimated performance of the ship in terms of energy efficiency, and be accompanied by the EEDI Technical File that contains the information necessary for the calculation of the attained EEDI and that shows the process of calculation. The attained EEDI shall be verified, based on the EEDI Technical File, either by the Administration or by any organization duly authorized by it.*"; and
- .2 in annex 4, paragraph 6 of the Unified Interpretation, is replaced by the following:
- "6 With respect to ships required to keep on board a SEEMP, such ships exclude platforms (including FPSOs and FSUs) and drilling rigs, regardless of their propulsion, and any other ship without means of propulsion."

Action taken on the report of the Working Group on Air Pollution and Energy Efficiency

4.134 In concluding its consideration of the report of the Working Group, the Committee approved it in general and, in particular:

- .1 approved the draft amendments to MARPOL Annex VI, as set out in annex 13, for circulation, with a view to adoption at MEPC 66;
- .2 noted the group had prepared amendments to resolution MEPC.212(63), the *2012 Guidelines on the method of calculation of the attained energy efficiency design index (EEDI) for new ships*, as amended, as set out in annex 2 to document MEPC 65/WP.10, with a view to finalization and adoption at MEPC 66;
- .3 adopted, by resolution MEPC.231(65), the *2013 Guidelines for calculation of reference lines for use with the energy efficiency design index (EEDI)*, as set out in annex 14;
- .4 approved the amendments to unified interpretation MEPC.1/Circ.795, as set out in annex 15, and instructed the Secretariat to disseminate it as MEPC.1/Circ.814;
- .5 adopted, by resolution MEPC.232(65), the *2013 Interim Guidelines for determining minimum propulsion power to maintain the manoeuvrability of ships in adverse conditions*, as set out in annex 16;
- .6 approved the *2013 Guidance on treatment of innovative energy efficiency technologies for calculation and verification of the attained EEDI*, and instructed the Secretariat to disseminate it as MEPC.1/Circ.815;

- .7 adopted, by resolution MEPC.233(65), the *2013 Guidelines for calculation of reference lines for use with the Energy Efficiency Design Index (EEDI) for cruise passenger ships having non-conventional propulsion*, as set out in annex 17;
- .8 adopted, by resolution MEPC.234(65), amendments to the *2012 Guidelines on survey and certification of the energy efficiency design index (EEDI)*, as amended, as set out in annex 18;
- .9 instructed the Secretariat to issue a consolidated text of the *2012 Guidelines on survey and certification of the energy efficiency design index (EEDI)*, as amended, which incorporates the amendment into the 2012 Guidelines and to disseminate it as MEPC.1/Circ.816;
- .10 noted the agreement of the Group for the respective datasets used to calculate the reference lines for LNG carriers, ro-ro (vehicle carriers), ro-ro cargo, ro-ro passenger and cruise passenger ships having non-conventional propulsion should be submitted to the Secretariat for the purposes of transparency in accordance with resolution MEPC.231(65), *Guidelines for calculation of reference lines for use with EEDI*; and
- .11 endorsed the work plan, as set out in annex 9 to document MEPC 65/WP.10.

4.135 The Committee thanked the Chairman, Mr. Yoshida, and members of the Group for their hard work.

Further measures to improve the energy efficiency of ships

4.136 The Committee had before it five documents on further measures to improve energy efficiency of international shipping.

4.137 The Committee recalled that MEPC 63 had invited further submissions on specific aspects of an IMO performance standard for fuel consumption measurement for ships (MEPC 63/23, paragraph 5.59).

4.138 The Committee also recalled that MEPC 64 had considered documents MEPC 64/5/6 and MEPC 64/5/7 (United States). Document MEPC 64/5/6 identified two major changes to the proposal in document MEPC 59/4/48 (United States), addressing GHG emissions by fostering improvements in ships' energy efficiency; first, the establishment of mandatory attained efficiency standards potentially using a metric based on fuel consumption; and secondly, the establishment of a phased approach: a data collection phase (Phase I); a pilot phase (Phase II); and a full implementation phase (Phase III). Document MEPC 64/5/7 provided a draft regulatory text for amendments to MARPOL Annex VI for Phases I and II of the revised proposal in MEPC 64/5/6.

4.139 The Committee further recalled that MEPC 64 had noted an intervention by the delegation of Norway highlighting that the proposal made by the United States in documents MEPC 64/5/6 and MEPC 64/5/7 is not, due to its technical nature, an MBM proposal, and therefore should be considered under agenda item 4 at future sessions (MEPC 64/23, paragraph 5.17).

4.140 The Committee considered the following documents under this item:

- .1 document MEPC 65/4/19 (United States), presenting a new version of its proposal for the establishment of attained energy efficiency standards for new and existing ships through a phased approach;
- .2 document MEPC 65/INF.3/Rev.1 (IMarEST), providing information relating to a goal-based approach to "fuel consumption measurement";
- .3 document MEPC 65/4/30 (Belgium, Canada, Denmark, Germany, Japan, Norway and United Kingdom) supporting the development of technical and operational measures to increase the energy efficiency of ships;
- .4 document MEPC 65/4/34 (CSC), providing comments on MEPC 65/4/19 (United States) and MEPC 65/INF.3/Rev.1 (IMarEST), and offering additional information on the different approaches to monitoring and reporting fuel consumption and CO₂ emissions from ships; and
- .5 document MEPC 65/4/35 (CSC), providing comments on MEPC 65/4/19 (United States) regarding "hours of operation" for transport work, measuring energy efficiency in terms of joules of energy, and data collection, submission and verification procedures.

4.141 Several delegations recognized the importance of enhancing energy efficiency and reducing fuel consumption with subsequent reductions of CO₂ emissions and other pollutants emitted to air and expressed the need to discuss the proposals submitted to the session further. Other delegations supported, in principle, the proposal by the United States and specifically the phased approach to implementation, and that the focus of initial work should be on data collection as a basis of future technical work. Some delegations identified the need for data collection to be systematic, practicable, cost-effective and require a low administrative burden for both the supplier and collector of the data.

4.142 Other delegations considered the implications of not limiting the consideration to data collection only and that further consideration should be given to the development of the options proposed in documents MEPC 65/4/19 and MEPC 65/4/30; and that this should be done on the basis of technical robustness, international agreement and consistency with measures that have already been adopted by the Organization. Any such scheme should have the simplicity and accuracy of monitoring efficiency using parameters that are readily and commonly available from the global fleet. In addition, the means to measure these parameters should be goal-based in order to improve over time, the accuracy of the information. In this regard, several delegations expressed the view that a correspondence group should be established to take forward the proposals before the next session.

4.143 One delegation was of the view that whilst they could support the development of the proposal by the United States, in principle, it would be on the basis of such a scheme being an alternative to an MBM for international shipping and not complementary. Another delegation also supported the proposal in principle but expressed their concern with extending the scheme to ships that had already complied with the EEDI requirements and that a compelling need would have to be demonstrated from the data collected.

4.144 Several delegations expressed the view that the adoption of the draft resolution on promotion of technical cooperation and transfer of technology relating to the improvement of energy efficiency of ships must be the priority for the Organization and that consideration of further measures must await the adoption of the resolution. Other delegations considered the

scheme needed to be technically credible and internationally acceptable and that the grading of ships could potentially adversely affect Member States' ability to trade and develop and so could be considered equivalent to an MBM that applied to all ships.

4.145 One delegation expressed the view that the UNFCCC already provides basic principles to determine monitoring, reporting and verification and that there is a clear distinction made in the reporting requirements for developed and developing countries. Further, the cost on the Organization and the cost-effectiveness needed to be investigated with a clear need and purpose identified for data collection. Other delegations expressed the view that the provisions for EEDI had only recently entered into force and so it was premature to consider further measures until the impact had been appropriately considered and as such did not support the establishment of a correspondence group.

4.146 The Committee noted that there was considerable support for the approach in the United States' proposal, as set out in document MEPC 65/4/19, especially for the data collection phase. The Committee also noted that some delegations were of the view that there was a need at this stage for more ideas and additional information. The delegation of Cyprus proposed further informal discussion intersessionally and requested interested delegations to contact Policy@dms.mcw.gov.cy.

4.147 The Committee agreed not to establish a correspondence group at this stage to respect the range of views expressed but agreed to establish a sub-item under agenda item 4 for discussion of further technical and operational measures for enhancing the energy efficiency of international shipping, and to establish a working group under this sub-agenda item at MEPC 66. In this regard the Committee invited further submissions on the proposals in documents MEPC 65/4/19 and MEPC 65/4/30, to its next session where the matter would be considered under agenda item 4.

5 REDUCTION OF GHG EMISSIONS FROM SHIPS

General

5.1 Based on a proposal by its Chairman, the Committee agreed to suspend discussions on Market-Based Measures and related issues to a future session except for this session the following three items will be considered:

- .1 Update of the GHG emission estimate for international shipping;
- .2 WTO-related matters; and
- .3 UNFCCC matters.

Update of the GHG emission estimate for international shipping

5.2 The Committee noted document MEPC 65/5/4 (CSC), drawing attention to a recent study that sets shipping (and aviation) emissions out to 2050 within the context of a global 2°C emissions reduction pathway. The observer from CSC believes this work represents further strong evidence highlighting the urgent need for IMO to take immediate action to reduce emissions of the world fleet with this critical timeline in mind, and urges MEPC 65 to agree, in particular, on the early adoption of immediate measures to address GHG emissions from existing ships so as to help preserve the chances of limiting global warming to no more than 2°C.

5.3 The Committee recalled that MEPC 63 noted that uncertainty exists in the estimates and projections of emissions from international shipping and agreed that further work should take place to provide the Committee with reliable and up-to-date information to base its decisions on and requested the Secretariat to investigate possibilities and report to future sessions (MEPC 63/23, paragraph 5.58).

5.4 The Committee also recalled that MEPC 64 had considered document MEPC 64/5/5 (Secretariat) containing a draft outline for an update of the GHG emissions estimate for international shipping providing, among others, methodological aspects and information on the work distribution (MEPC 64/23, paragraph 5.3).

5.5 The Committee further recalled that following a discussion, MEPC 64 had endorsed, in principle, the outline for an update of the GHG emissions estimate as set out in the annex to document MEPC 64/5/5, and had agreed that an Expert Workshop be held in 2013 to further consider the methodology and assumptions to be used in the update (MEPC 64/23, paragraph 5.6).

5.6 The Committee noted that the Expert Workshop on the update of GHG emissions estimate for international shipping (Update-EW) was held from 26 February to 1 March 2013 and its report is contained in document MEPC 65/5/2. In considering the report, the Committee noted: the good progress that was made by the Expert Workshop including its agreement that the primary focus of the Update Study should be to update the CO₂ emission estimates for international shipping; and its recommendation that, should there be adequate resources, then the additional substances that were estimated by the Second IMO GHG 2009 should also be estimated.

5.7 The Committee agreed to the terms of reference of the Update Study as set out in the annex to document MEPC 65/5/2, and:

- .1 that the Update Study should focus on global inventories as set out in paragraph 1.3 of the terms of reference and, resources permitting, should also include future scenarios of emissions as set out in the chapeau and paragraph 1.10;
- .2 that the primary focus of the Update Study should be to update the CO₂ emission estimates for international shipping, and that, should there be adequate resources, then the same substances as those estimated by the Second IMO GHG Study 2009 should also be estimated;
- .3 that a Steering Committee should be established and that it should be geographically balanced, equitably represent developing and developed countries and be of a manageable size. The Committee also agreed that the Steering Committee should be comprised of seven Member States, three from developing, three from developed countries and one Member State to chair the Steering Committee; and
- .4 to keep the timetable for delivering the Update Study as suggested by the Expert Workshop: 31 July 2013 for the procurement process and MEPC 66 (March 2014) as submission deadline for the final report of the Update Study.

5.8 With regard to paragraph 5.7.4 above, the Committee noted the view of some delegations that the timetable for delivering the Study within the tight deadlines might compromise the outcome and that finalization of the study should therefore be postponed to MEPC 68 in 2015 by which time the Fifth Assessment Report (AR5) of the Intergovernmental

Panel on Climate Change (IPCC) will have been published. Furthermore, some delegations expressed the view that delivery of the Update Study should be considered in the context of global emissions estimates and that there is a need to ensure a good quality, robust and credible outcome from the Update Study.

5.9 The Committee requested the Secretariat to finalize the terms of reference for the Update Study, including the agreed changes and any editorial amendments that may be needed, and that the terms of reference should be attached as an annex to the report of MEPC 65.

5.10 The Committee also requested the Secretariat to initiate the Update Study in accordance with the terms of reference, including establishment of the Steering Committee as agreed by the Committee, so that work could begin in 2013, with a view to the final report of the Update Study being submitted to MEPC 66, to be held in Spring 2014.

5.11 The Committee noted that an invitation for tendering for the Update Study will be posted on the IMO website and encouraged Member States to have this information conveyed to relevant national research institutes and universities, which, in their judgment, would be interested in bidding for the update.

5.12 The Committee thanked delegations for all financial and in-kind contributions made towards the Update Study, and invited Member States and observer organizations that have not already done so to contribute financially towards the Update Study so as to ensure timely delivery of this undertaking.

Action taken on the report of the Expert Workshop on the update of GHG emissions estimate for international shipping

5.13 In concluding its consideration of the report of the Expert Workshop, the Committee approved it in general and, in particular:

- .1 noted that the Expert Workshop completed, as far as possible, the mandate given to it by the Committee as outlined in paragraph 5.6 to document MEPC 64/23;
- .2 noted that the available data for use in approaches for estimating emissions have been improved and enhanced since 2007 and that, whilst there is still uncertainty, the improvements in data collection, methods and assumptions could increase confidence in the estimates derived;
- .3 endorsed the Expert Workshop's recommendation that the same top-down (fuel sales) and bottom-up (ship activity) approaches used in the Second IMO GHG Study 2009 be used in the Update Study;
- .4 approved the terms of reference for the Update Study, as set out in annex 19 to this report;
- .5 agreed that it is important that the emission estimates obtained by the Update Study should be viewed by the IMO Membership and external interested parties as the outcome of a method agreed; and
- .6 noted and expressed its appreciation to the international bodies and experts that provided, through seven presentations to the Expert Workshop, a comprehensive overview of the approaches for estimating emissions from international shipping, as listed in annex 2 to document MEPC 65/5/2.

5.14 The Committee thanked the Chairman of the Expert Workshop, Mr. Andreas Chrysostomou, experts and delegates attending the Expert Workshop, for their hard work.

Market-based Measures

5.15 The Committee, bearing in mind its agreement that discussion of Market-based Measures is suspended, noted the following new submissions to this session:

- .1 MEPC 65/5/3 (Republic of Korea);
- .2 MEPC 65/5/1 (IMarEST);
- .3 MEPC 65/INF.6 (Republic of Korea); and
- .4 MEPC 65/INF.18 (Secretary-General).

WTO-related issues

5.16 The Committee recalled that MEPC 63 agreed to continue the debate on the relation between an MBM for international shipping under IMO and the WTO rules at MEPC 64 and invited further submissions and contributions (MEPC 63/23, paragraph 5.41).

5.17 The Committee also recalled that MEPC 64 considered document MEPC 64/5/3 (India and Saudi Arabia) entitled "Possible incompatibility between WTO rules and Market-Based Measures (MBM) for international shipping", arguing that MBMs show incompatibility with the WTO rules and that the GHG-WG 3 conclusion that MBMs are, in principle, compatible with the WTO rules was premature since most of the MBM proposals are not yet elaborated enough to support that conclusion (MEPC 64/23, paragraph 5.23).

5.18 The Committee further recalled that MEPC 64 agreed that the matter could be further considered at MEPC 65, subject to the impact assessment of the proposed MBMs (MEPC 64/23, paragraph 5.24).

5.19 The Committee noted that, in this regard, the Council at its 109th session had instructed the Secretariat to seek comments from WTO on document MEPC 64/5/3 (India and Saudi Arabia), with a view to facilitating further consideration of that document at MEPC 65 (C 109/D, paragraph 6.4(v)).

5.20 The Committee noted document MEPC 65/INF.18 (Secretary-General) setting out the response by the WTO Secretariat on the matter. The delegation of India expressed the view that the WTO Secretariat was not in a position to provide the information requested and so the information in the annex to the document should not have been requested nor should it be considered further. However, the Committee noted that the request for such information had come from the Council.

UNFCCC matters

5.21 The Committee noted document MEPC 65/5 (Secretariat) on the outcome of the United Nations Climate Change Conference 2012, which was held in Doha, Qatar.

5.22 The Committee also noted that a statement by the representative of the UNFCCC Secretariat, providing a status report on the current state of negotiations in general and on bunker fuels in particular is, as requested by the UNFCCC Secretariat, set out in annex 20.

5.23 The Committee requested the Secretariat to continue its cooperation with the UNFCCC Secretariat, to attend relevant UNFCCC meetings and, when necessary, to bring the outcome of IMO's work to the attention of appropriate UNFCCC bodies and meetings.

6 CONSIDERATION AND ADOPTION OF AMENDMENTS TO MANDATORY INSTRUMENTS

General

6.1 The Committee recalled that, at MEPC 64, it had approved, with a view to adoption at this session, draft amendments to:

- .1 MARPOL Annex I (Amendments to Form A and Form B of Supplements to the IOPP Certificate) (MEPC 64/23, paragraph 7.32 and annex 13);
- .2 the Condition Assessment Scheme under MARPOL Annex I (MEPC 64/23, paragraph 11.13 and annex 16); and
- .3 the draft Code for Recognized Organizations (RO Code) and amendments to MARPOL Annexes I and II to make the RO Code mandatory (MEPC 64/23, paragraphs 11.62, 11.63 and annex 23).

6.2 The Committee noted that the texts of the above-mentioned approved draft amendments to MARPOL were circulated by the Secretary-General on 15 October 2012, under cover of Circular letter No.3315, in accordance with the provisions of article 16(2)(a) of the MARPOL Convention.

6.3 The Committee also recalled that MEPC 64 had agreed, in principle, that a drafting group would be established at this session to make any editorial changes to the draft amendments, as necessary, before adoption by the Committee.

Amendments to MARPOL Annex I (Amendments to Form A and Form B of Supplements to the IOPP Certificate)

6.4 The Committee noted that the draft amendments, as approved by MEPC 64, together with the draft MEPC resolution on their adoption, were set out in document MEPC 65/6. No comments on the draft amendments were forthcoming and it was accordingly agreed to send them for finalization directly to the Drafting Group to be established.

Amendments to the Condition Assessment Scheme under MARPOL Annex I

6.5 The Committee noted that the draft amendments as approved by MEPC 64, together with the draft MEPC resolution on their adoption, were set out in document MEPC 65/6/1. No comments on the draft amendments were forthcoming and it was therefore agreed to send them for finalization directly to the Drafting Group to be established.

Code for Recognized Organizations (RO Code) and amendments to MARPOL Annexes I and II to make the Code mandatory

6.6 The Committee recalled that MEPC 64, having considered the draft Code for Recognized Organizations (RO Code) contained in annex 6 to document FSI 20/19, and other documents commenting on it, approved the draft Code for Recognized Organizations (RO Code), as further modified, with a view to adoption at MEPC 65, subject to the concurrent decision of MSC 91.

6.7 It was noted that, having considered the outcome of MEPC 64, MSC 91 concurred with the decision of MEPC 64 but, recognizing a cross-referencing issue in the draft RO Code with resolutions A.739(18) and A.789(19) and taking account of some proposed further modifications to the draft RO Code, it agreed to additional amendments and consequently approved the draft RO Code and its associated draft MSC resolution, as set out in annex 19 to document MSC 91/22/Add.1, with a view to adoption at MSC 92. This new text was consequently that which is now referenced in annex 1 to document MEPC 65/6/2.

6.8 The Committee also recalled that MEPC 64 had considered and approved draft amendments to MARPOL Annexes I and II to make the RO Code mandatory, with a view to their adoption at MEPC 65 after the adoption of the RO Code at the same session. The text of the proposed amendments as approved by MEPC 64, together with the draft MEPC resolution on their adoption, is set out in annex 2 to document MEPC 65/6/2.

6.9 The Committee noted, however, that with reference to the draft amendments to MARPOL Annexes I and II to make the RO Code mandatory, a slightly modified version of the draft amendments, as set out in the annex to document MEPC 65/6/2/Add.1, had been prepared by the Secretariat which took account of the outcome of MSC 91 on the same point but as related to the 1988 Load Lines Protocol. As this basically harmonized the proposed amendments with the approach taken at MSC 91, it was agreed that this document together with MEPC 65/6/2 should also be sent directly to the Drafting Group for consideration.

6.10 The delegation of Spain noted that amendments to make the RO Code mandatory were only proposed for MARPOL Annexes I and II and it was questioned how the RO Code would relate to MARPOL Annex VI adopted by the Protocol of 1997.

6.11 The Committee was advised that whilst MARPOL Annex VI refers to recognized organizations as a footnote to regulation 5, the text itself, in contrast to MARPOL Annexes I and II, does not contain any specific reference to Assembly resolutions A.739(18) and A.789(19). Accordingly, only MARPOL Annexes I and II had been considered in the context of amendments to make the RO Code mandatory.

6.12 In terms of further modifications to the RO Code, the Committee noted a proposal from IACS (MEPC 65/6/3) for four amendments/clarifications to be made to the draft RO Code before adoption at this session. IACS advised that with respect to the issue relating to the register of ships, an alternative approach to that proposed in document MEPC 65/6/3 could be considered which would be to replace the term "register" by the word "list". Additionally, it was highlighted that under the point dealing with the recognition of approval of a service supplier, there was an error in document MEPC 65/6/3 as in the text proposed, it should read "by the RO" rather than "by its ROs". It was proposed by IACS that these points along with the other amendments suggested should be considered by the Drafting Group, noting that further refinement of the texts submitted may be made, if appropriate.

6.13 The amendments put forward by IACS were fully supported by a number of delegations but other delegations expressed some concerns in relation to two of the items proposed addressing the "transfer of class provisions" and the "recognition of approval of a service supplier" and did not support these changes. The Committee concluded that the IACS proposals should be sent to the drafting group for consideration and noted additionally, as highlighted by the delegation of Australia, that other paragraphs in the draft text of the RO Code, which may be affected by the proposed changes, should also be taken into account.

6.14 The delegation of Spain requested that a qualification to the proposed text dealing with "ships constructed without a known flag State" should be considered by the Drafting Group, introducing "at least" before "with all relevant international requirements ..." so as to offer additional scope for this requirement.

6.15 The Committee was additionally informed that the Democratic People's Republic of Korea had submitted a document on the draft RO Code to MSC 92 proposing three small editorial changes (MSC 92/3/12). After considering this information, and with a view to ensuring that the text of the RO Code remains identical for adoption by both MEPC 65 and MSC 92, the Committee agreed that the modifications proposed in document MSC 92/3/12 should be taken into account by the drafting group accordingly.

Establishment of the Drafting Group

6.16 The Committee established the Drafting Group on Amendments to Mandatory Instruments, under the Chairmanship of Mr. Paul Nelson (Australia), and instructed it, on the basis of the documents submitted (MEPC 65/6, MEPC 65/6/1, MEPC 65/6/2, MEPC 65/6/2/Add.1 and MEPC 65/6/3), noting also document MSC 92/3/12, and taking into account any comments, proposals and decisions made in plenary, to:

- .1 review and finalize the draft amendments to MARPOL Annex I for Form A and Form B of Supplements to the IOPP Certificate;
- .2 review and finalize the draft amendments to the Condition Assessment Scheme under MARPOL Annex I;
- .3 review and finalize the draft Code for Recognized Organizations (RO Code) and the draft amendments to MARPOL Annexes I and II to make the RO Code mandatory; and
- .4 submit a written report to the plenary on Thursday, 16 May 2013.

Outcome of the Drafting Group and action taken by the Committee

6.17 Having considered the report of the Drafting Group on Amendments to Mandatory Instruments (MEPC 65/WP.11), which met on 15 May 2013, the Committee approved the report in general and adopted:

- .1 by resolution MEPC.235(65), amendments to MARPOL Annex I relating to Form A and Form B of Supplements to the IOPP Certificate, dealing with the removal of recording incinerator capacity, as set out in annex 21;
- .2 by resolution MEPC.236(65), amendments to the Condition Assessment Scheme under MARPOL Annex I, as a consequence of the adoption of the International Code on the Enhanced Programme of Inspections during Surveys of Bulk Carriers and Oil Tankers, 2011, as set out in annex 22;
- .3 by resolution MEPC.237(65), the Code for Recognized Organizations (RO Code), as set out in annex 23; and invited MSC 92 to make sure that the text of the RO Code adopted by MEPC 65 and MSC 92 remains identical; and
- .4 by resolution MEPC.238(65), amendments to MARPOL Annexes I and II to make the RO Code mandatory, as set out in annex 24.

6.18 In relation to these resolutions, the Committee instructed the Secretariat to check the amendments carefully for any editorial omissions and, if necessary, insert these in the final text of the amendments.

6.19 With respect to the Code for Recognized Organizations and the request to consider the removal of paragraphs A2.3.11 and A2.3.12 in light of the fact that no amendments to MARPOL Annex VI in relation to the RO Code are being adopted at this time, the Committee concluded that these paragraphs should be deleted in the text of the RO Code.

6.20 Further changes to the RO Code also agreed by the Committee included a proposal from the delegation of Turkey to add at the end of paragraph 5.9.2 "or by flag State requirements" and a correction to paragraph 8.1, as advised by the Chairman of the Drafting Group, whereby in line one the reference to "regulation 4-6" of MARPOL Annex I should be replaced by "regulation 6".

6.21 It was stressed by the observer from IACS that, as noted above in paragraph 6.17.3, it was important to ensure that the final text of the RO Code as adopted by both MEPC and MSC Committees is identical.

6.22 The delegation of Ireland made a statement in relation to the adoption of the RO Code, as set out in annex 25. The delegations of Austria, Belgium, Croatia, Cyprus, Denmark, Estonia, France, Finland, Germany, Greece, Hungary, Iceland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Portugal, Spain, Sweden and the United Kingdom aligned themselves with this position and the statement provided by Ireland.

7 INTERPRETATIONS OF, AND AMENDMENTS TO, MARPOL AND RELATED INSTRUMENTS

7.1 The Committee noted that nine documents had been submitted under this agenda item and that document MEPC 65/7/4 (IACS), dealing with matters related to MARPOL Annex VI, would be considered under agenda item 4 – Air prevention and energy efficiency.

7.2 The Committee, in noting that the remaining eight documents all relate to MARPOL Annex V and the associated guidelines, agreed to also consider document MEPC 65/10 (Liberia, Marshall Islands, Panama, ICS, BIMCO and INTERCARGO) under this agenda item as it also concerns MARPOL Annex V.

Procedural concerns

7.3 The delegation of the Netherlands, supported by some delegations, expressed concern that several documents had been submitted under this agenda item without a corresponding planned output. In referring to the debate on the procedural matter at MEPC 60, in particular, with regard to the broad definition of the title of this agenda item, which leads to the submission of proposals falling into the scope of an unplanned output, the delegation of the Netherlands informed the Committee of its intention to raise the issue under agenda item 19 – Application of the Committees' Guidelines.

Revised guidance to manage spoilt cargoes

7.4 The Committee recalled that MEPC 59 had adopted the Guidance on managing spoilt cargoes (LC-LP.1/Circ.30 and MEPC.1/Circ.688) developed by the Joint LC-LP/MEPC Correspondence Group on Boundary Issues, with a view to clarifying boundary issues between the London Convention and Protocol and MARPOL Annex V.

7.5 The Committee, having considered the revised Guidance prepared by the Joint London Convention and Protocol/MEPC Correspondence Group, taking into account the entry into force of the London Protocol and the revised MARPOL Annex V, approved the draft Revised Guidance on the management of spoilt cargoes, as set out in the annex to document MEPC 65/7 (Secretariat).

7.6 The Committee instructed the Secretariat to disseminate the Revised Guidance through LC-LP.1/Circ.58/MEPC.1/Circ.809, revoking LC-LP.1/Circ. 30 and MEPC.1/Circ.688; and inform the LC/LP governing bodies accordingly.

7.7 The Committee also noted the continuing efforts by the LC/LP governing bodies to develop outreach and training materials to increase the understanding and application of the revised *Guidance on the management of spoilt cargoes*.

7.8 The delegation of the Islamic Republic of Iran, in appreciating the effort made by the Joint LC-LP/MEPC Correspondence Group for the revision of the Guidance, nevertheless, expressed its concern over the lack, in the Guidance, of detailed description of the risks posed to the crew and the marine environment from spoilt cargoes, specific guidance on prevention and minimization of the risk of cargo corruption, as well as guidance on disposal of spoiled cargos in plastic packages or coverings.

Garbage Record Book

7.9 The Committee considered document MEPC 65/7/1 (Australia and Marshall Islands), proposing the use of an electronic system to record Garbage Record Book (GRB) entries as an alternative to the current document version required under MARPOL Annex V. The co-sponsors also proposed a draft Unified Interpretation to regulation 10.3 of MARPOL Annex V, as set out in the annex to document MEPC 65/7/1, with a view to allowing for a consistent approach to the use of electronic GRBs and an acceptance of these by all Parties to the Convention.

7.10 In welcoming the proposal, the delegations who spoke all supported the need to explore the possibility to reduce the administrative burden of the crew on board flag and port Authorities and other maritime stakeholders by using electronic record keeping. However, delegations were of the view that it would be premature to approve the proposed unified interpretation to MARPOL Annex V at this stage as more work is needed. In this connection, the Committee noted, inter alia, the following comments:

- .1 that a holistic approach should be taken to look at all the record books under MARPOL;
- .2 that generic guidance on the approval of electronic record keeping should be developed;
- .3 that the ongoing work of the FAL Committee on the electronic access to certificates and documents, as well as ship/port interface should be taken into account, with a view to avoiding duplication of work; and
- .4 that for any electronic record keeping, to comply with IMO mandatory requirements on documentation, it is imperative that port States have the complete comfort that information, including the signature, is correct, certified, verifiable, and with sufficient protection from tampering, and at least meet the requirements for paper copy.

7.11 Following the discussion, the Committee agreed to establish a correspondence group on the use of electronic record books under MARPOL and consequently instructed the drafting group to prepare the terms of reference accordingly.

7.12 In this connection, the Committee invited the FAL Committee to keep it updated on its work on the electronic access to certificates and documents, as well as ship/port interface; and invited MSC 92 to note the initiative taken by the Committee.

7.13 The Committee considered document MEPC 65/7/6 (Australia, Liberia, Marshall Islands and INTERTANKO) proposing a revision to the format of the table layout for recording entries of garbage discharges in the Garbage Record Book in the appendix to the revised MARPOL Annex V. The co-sponsors pointed out that the table in the Garbage Record Book under the revised MARPOL Annex V causes confusion as the entry for "Estimated Amount Discharged/Incinerated" is a stand-alone column, which is no longer related to the location of discharge/incineration, compared with the table prior to its revision.

7.14 In the ensuing discussion, the proposal received significant support as it was regarded as a clear improvement.

7.15 The delegation of the Netherlands, in welcoming the proposal, suggested the issuance of an MEPC circular as an interim measure, instead of developing amendments to MARPOL Annex V, until the work on the evaluation of solid bulk cargo is completed, as the delegation considered that more proposals for improvement of the Garbage Record Book may be received as a consequence of experience gained following the entry into force of the revised MARPOL Annex V.

7.16 Following the discussion, the Committee agreed to instruct the drafting group to prepare draft amendments to the form of Garbage Record Book under MARPOL Annex V, using text in document MEPC 65/7/6 (Australia, Liberia, Marshall Islands and INTERTANKO) as a basis.

7.17 In this connection, the Committee also agreed to consider, with a view to adoption, the draft MEPC resolution on the early implementation of the proposed amendments to MARPOL Annex V, as set out in annex 2 to document MEPC 65/7/6, at MEPC 66, when the Committee would be expected to adopt such amendments.

Proposal for amendments to the 2012 Guidelines for the implementation of MARPOL Annex V concerning management of boiler/economizer washdown water

7.18 The Committee had for its consideration the following documents:

- .1 MEPC 65/7/2 (Antigua and Barbuda, Barbados and Republic of Korea), proposing that soot-entrained drainage generated after washing the boiler/economizer gas side, i.e. boiler/economizer washdown, should be regarded as an operational waste under MARPOL Annex V and, therefore, its discharge should be prohibited. The co-sponsors also proposed, in the annex to their submission, draft amendments to paragraph 1.7.3 of the *2012 Guidelines for the implementation of MARPOL Annex V* to clarify the issue;
- .2 MEPC 65/7/3 (Cyprus), proposing that boiler/economizer washdown should be regarded as "other similar discharges" essential to the operation of a ship rather than "operational waste", therefore, limited quantities of water containing soot could be drained and discharged overboard; and

- .3 MEPC 65/7/8 (INTERTANKO), commenting on documents MEPC 65/7/2 and MEPC 65/7/3, and providing the observer's consideration of the issue regarding the regulation and subsequent management of boiler/economizer washdown water.

7.19 In the ensuing discussion, a slight majority of the delegations, who spoke, expressed their support to the proposal contained in document MEPC 65/7/3 as the proposal was regarded as a pragmatic solution. A number of other delegations indicated their support for the proposal contained in document MEPC 65/7/2, with a view to preventing and minimizing any unacceptable risk to the marine environment. Several delegations expressed the view that careful consideration of the issue was needed before making any decision, in particular, with regard to the environmental impact assessment of the discharge of boiler/economizer washdown water and the need for any necessary amendments to MARPOL Annex I.

7.20 After extensive discussion, the Committee, in endorsing a proposal made by the delegation of the United Kingdom, instructed the drafting group to prepare draft amendments to the *2012 Guidelines for the implementation of MARPOL Annex V*, taking into account document MEPC 65/7/3 (Cyprus) and to prepare a draft MEPC circular outlining best practice for management of boiler/economizer washdown water.

7.21 In this connection, the Committee also agreed that any Member Governments wishing to pursue the matter further should submit a proposal for an unplanned output to be included in the agenda of the BLG Sub-Committee to a future session of the Committee for consideration.

Proposal for amendments to the 2012 Guidelines for the implementation of MARPOL Annex V concerning electronic wastes

7.22 The Committee had for its consideration document MEPC 65/7/7 (India), proposing draft amendments to the *2012 Guidelines for the implementation of MARPOL Annex V*, with a view to providing guidance on disposal of electronic wastes, such as electronic cards, gadgets, computers, printer cartridges, generated on board during normal operation, maintenance or upgrading of vessels.

7.23 Noting the support for the proposal, the Committee instructed the drafting group to prepare draft amendments to the *2012 Guidelines for the implementation of MARPOL Annex V* concerning electronic wastes, taking into account document MEPC 65/7/7 (India).

Proposal for a unified interpretation of MARPOL Annex V relating to the disposal of cooking oils

7.24 In introducing document MEPC 65/7/5, the delegation of the Marshall Islands sought clarification from the Committee regarding the appropriateness of disposing of cooking oil via a ship's oil residue (sludge tank) as listed in the Supplements to the IOPP Certificates, as well as the methods of recording such disposal. The delegation of the Marshall Islands also proposed the development of a unified interpretation for this issue.

7.25 In the ensuing discussion, a number of delegations supported the proposal as a pragmatic solution. Other delegations raised concerns over the blending of cooking oil with MARPOL Annex I oil waste, pointing out that cooking oil is defined as garbage under MARPOL Annex V and its discharge is prohibited under regulation 3 of MARPOL Annex V.

7.26 Noting the divergent views on the matter, the Committee agreed to refer document MEPC 65/7/5 to BLG 18 for consideration under the agenda item "Any other business", for one session and advise the Committee accordingly.

Lack of adequate port reception facilities for the implementation of the revised MARPOL Annex V

7.27 The Committee had for its consideration document MEPC 65/10 (Liberia, Marshall Islands, Panama, ICS, BIMCO and INTERCARGO), pointing out the difficulties being experienced by shipowners and operators in obtaining "harmful to the marine environment" (HME) declarations, required by the revised MARPOL Annex V, and when cargoes have been classified as HME, finding adequate reception facilities at receiving terminals. The co-sponsors proposed that in case where no adequate port reception facilities exist at the discharge port, cargo hold washing water containing remnants of such residues may be discharged at a distance not less than 12 nautical miles from shore.

7.28 In the ensuing discussion, the majority of delegations, who spoke, indicated their general support to the proposal which would allow the discharge of solid bulk cargo hold washwater under certain conditions due to the lack of adequate reception facilities.

7.29 Taking into account comments made during the discussion, the Committee agreed that:

- .1 such relaxation should not be open-ended and a two-year time limit should be set up;
- .2 the discharge should be made outside special areas; and
- .3 the discharge should be made in cases where there are no reception facilities either at the receiving terminal or at the next port of call.

7.30 Consequently, the Committee instructed the drafting group to prepare a draft MEPC circular on adequate port reception facilities for cargoes declared as harmful to the marine environment under MARPOL Annex V.

7.31 With a view to addressing the concerns expressed and the effective implementation of MARPOL Annex V, the Committee urged Parties to MARPOL Annex V to:

- .1 ensure the provision of adequate facilities at ports and terminals for the reception of solid bulk cargo residues including those contained in washwater;
- .2 ensure shippers within their jurisdiction provide complete and accurate cargo declarations in accordance with MARPOL Annex V (and circular MEPC.1/Circ.791) and section 4 of the IMSBC Code; and
- .3 notify the Organization for transmission to the Parties concerned of all cases where the facilities are alleged to be inadequate.

7.32 To solve the problem in relation to the disposal of solid bulk cargo residues and the cargo hold washwater, the Committee agreed to keep the issue under review. The Committee further invited Member Governments and international organizations to submit to a future session of the Committee their proposals and comments on the issue, including the need to develop appropriate guidance on the reduction of the solid bulk cargo residues and treatment of cargo hold washwater, taking into account relevant work being undertaken by the DSC Sub-Committee.

7.33 The delegation of Japan, in pointing out that the information on Japanese ports shown in the table of annex 1 of document MEPC 65/10, did not reflect accurate situations of port reception facilities in Japan, made a statement on the effective implementation of the revised MARPOL Annex V in the country. This statement is set out in annex 26.

Establishment of the drafting group on proposed amendments to MARPOL Annex V and associated guidelines

7.34 The Committee established the Drafting Group on Proposed amendments to MARPOL Annex V and associated guidelines under the chairmanship of Mr. Zafrul Alam (Singapore) and instructed it, taking into account any comments, proposals and decisions made in plenary, to:

- .1 prepare draft amendments to the form of Garbage Record Book under MARPOL Annex V, using text in document MEPC 65/7/6 (Australia, Liberia, Marshall Islands and INTERTANKO) as a basis;
- .2 prepare draft amendments to the *2012 Guidelines for the implementation of MARPOL Annex V* (resolution MEPC.219(63)) concerning boiler/economizer washdown water, taking into account document MEPC 65/7/3 (Cyprus);
- .3 prepare draft amendments to the *2012 Guidelines for the implementation of MARPOL Annex V* (resolution MEPC.219(63)) concerning electronic wastes, taking into account document MEPC 65/7/7 (India);
- .4 prepare a draft MEPC circular on adequate port reception facilities for cargoes declared as harmful to the marine environment under MARPOL Annex V, taking into account document MEPC 65/10 (Liberia, Marshall Islands, Panama, ICS, BIMCO and INTERCARGO);
- .5 prepare draft terms of reference for the correspondence group on the use of electronic record books under MARPOL;
- .6 prepare a draft MEPC circular outlining best practice for management of boiler/economizer washdown water; and
- .7 submit a written report for consideration by the plenary on Thursday, 16 May 2013.

Report of the drafting group

7.35 Having considered the report of the drafting group (MEPC 65/WP.12), the Committee approved it in general and took action as indicated hereunder:

Draft amendments to the form of Garbage Record Book under MARPOL Annex V

7.36 The delegation of Vanuatu, in referring to the agreement of the drafting group to replace the heading of the column "to reception facilities or other ships (m³)" with "to reception facilities (m³)" based on the understanding that any waste collecting ship (barge) is part of a reception facility, pointed out that there are many cases where waste collecting ships are not part of a reception facility, such as supporting vessels for collecting garbage from offshore facilities and mobile offshore units (MOUs). The delegation was of the view that, although the proposed change would not materially affect the heading, it would be desirable that Members Governments could have the same understanding, with a view to avoiding any different interpretations.

7.37 Following the suggestion by the delegation of the Netherlands, the Committee agreed to modify the text of garbage category C to read "Domestic waste".

7.38 Subsequently, the Committee approved the draft amendments to the form of Garbage Record Book under MARPOL Annex V, as set out in annex 27 for circulation, with a view to adoption at MEPC 66.

Amendments to the 2012 Guidelines for the implementation of MARPOL Annex V concerning electronic wastes

7.39 The Committee adopted, by resolution MEPC.239(65), *Amendments to the 2012 Guidelines for the implementation of MARPOL Annex V* (resolution MEPC.219(63)), as set out in annex 28.

MEPC circular on adequate port reception facilities for cargoes declared as harmful to the marine environment under MARPOL Annex V

7.40 The Committee approved the draft MEPC circular on adequate port reception facilities for cargoes declared as harmful to the marine environment under MARPOL Annex V and instructed the Secretariat to disseminate it as MEPC.1/Circ.810.

7.41 In this context, the Committee agreed to set the time limit for the application of the circular to 31 December 2015.

Terms of reference for the Correspondence Group on the use of electronic record books under MARPOL

7.42 The Committee noted that the drafting group had prepared the draft terms of reference for the proposed correspondence group, as set out in annex 4 of document MEPC 65/WP.12.

7.43 The delegation of Spain suggested that the correspondence group should develop some minimum conditions which electronic recording should comply with for acceptance by port State Authorities.

7.44 The delegation of China, in supporting the establishment of the correspondence group, expressed the view that the group should first consider the necessity and feasibility of using electronic recording, rather than developing relevant guidance.

7.45 Having agreed to delete the second and third points of the draft terms of reference, the Committee established the Correspondence Group on the use of electronic record books under MARPOL under the coordination of Australia¹, and instructed it, taking into account the comments and decisions made at MEPC 65, to:

- .1 prepare draft guidance for the use of electronic record books under MARPOL, taking into account document MEPC 65/7/1 and the ongoing work of the FAL Committee in this respect; and
- .2 submit a written report to MEPC 66.

7.46 With a view to facilitating future work in this respect, the Committee, in endorsing the proposal by the delegation of the Bahamas, agreed to modify 8.0.3.2 of its planned output to read "Electronic access to, or electronic versions of, certificates and documents including record books required to be carried on ships", for endorsement by C110. The Committee invited the MSC and FAL Committees to note this action.

Boiler/economizer washdown water

7.47 The Committee noted that the drafting group had prepared the draft amendments to the *2012 Guidelines for the implementation of MARPOL Annex V* to define boiler/economizer washdown as "other similar discharges" essential to the operation of a ship and a draft MEPC circular outlining best practice for management of boiler/economizer washdown water.

7.48 The observer from BIMCO, supported by the delegation of India, suggested that ships with small boiler/economizer installed may consider complying with these recommendations by removing the soot particles from bilges by mechanical means.

7.49 A number of delegations expressed their concerns on the draft MEPC circular, pointing out that the proposed best practice was impracticable and unduly prescriptive; in contradiction with the proposed amendments to the *2012 Guidelines*; and may entail retrofitting of the ships. Those delegations believed that the issue needs full consideration by a sub-committee before making any decision so as not to provide confusing guidance to the shipping industry.

7.50 Following the discussion, the Committee did not approve the draft amendments to the *2012 Guidelines for the implementation of MARPOL Annex V* to define boiler/economizer washdown as "other similar discharges" nor the draft MEPC circular outlining best practice for management of boiler/economizer washdown water.

7.51 The Committee reiterated its decision that any Member Governments wishing to pursue the matter further should submit a proposal for an unplanned output to be included in the agenda of the BLG Sub-Committee to a future session of the Committee for consideration.

¹

Coordinator:

Mr. Paul Nelson
Manager
Environment Protection Standards
Marine Environment Division
Australian Maritime Safety Authority
Australia
Tel: 02 6279 5040
Fax: 02 6279 5076
E-mail: paul.nelson@amsa.gov.au

8 IMPLEMENTATION OF THE OPRC CONVENTION AND THE OPRC-HNS PROTOCOL AND RELEVANT CONFERENCE RESOLUTIONS

Reports of the fifteenth meeting of the OPRC-HNS Technical Group

8.1 The Committee recalled that at MEPC 64 it had considered and approved the reports of the thirteenth and fourteenth meetings of the OPRC-HNS Technical Group, as well as approving the scheduling of the Group's fifteenth session in the week prior to MEPC 65.

8.2 The Committee noted that the fifteenth meeting of the OPRC-HNS Technical Group was held from 7 to 10 May 2013 under the chairmanship of Mr. Alexander Von Buxhoeveden (Sweden), and that the report of the meeting was issued under document MEPC 65/WP.2.

8.3 The Committee approved the report in general and, in particular:

- .1 noted the progress made on part III of the IMO Dispersant Guidelines;
- .2 concurred with the Group's proposal to refer the Guide on oil spill response in ice and snow conditions to the Arctic Council's Emergency Prevention, Preparedness and Response (EPPR) Working Group for further development;
- .3 noted the progress made in the elaboration of the Guideline on international offers of assistance in the event of a major oil pollution incident;
- .4 noted the progress made on the Guidance on the safe operation of oil pollution combating equipment;
- .5 continued to urge delegations to submit information to further expand the inventory of information resources on OPRC/HNS-related matters;
- .6 endorsed the Secretariat's ongoing support to the Triennial Oil Spill Conference Series;
- .7 noted the further assessment and development of the high priority item on elements for HNS contingency planning;
- .8 approved the revision of section II of the Manual on Oil Pollution – Contingency Planning to include new information related to contingency planning for offshore units, sea ports and oil handling facilities;
- .9 welcomed the election of Mr. Woo-Rack Suh (Republic of Korea) as Chairman and Mr Christophe Rousseau (France) as Vice-Chairman of the OPRC-HNS Technical Group for the 2014-2015 biennium;
- .10 extended the thanks and appreciation of the Committee to the outgoing Chairman Mr. Alexander von Buhoeveden (Sweden) for his leadership and support of the OPRC-HNS Technical Group throughout his tenure; and
- .11 approved the draft planned output and provisional agenda of the sixteenth meeting of the OPRC-HNS Technical Group and the scheduling of the meeting in the first half of 2014, subject to a decision being taken on the restructuring of the Sub-Committees. The final arrangement of the meeting will be circulated in due course.

Manual on Chemical Pollution to address legal and administrative aspects of HNS incidents

8.4 The Committee recalled that, at MEPC 55, it had concurred with the OPRC-HNS Technical Group's proposal for the development of guidance materials to address the legal and administrative aspects of HNS incidents and had correspondingly added this item as an unplanned output to the work of the OPRC-HNS Technical Group.

8.5 Having considered document MEPC 65/8 (Secretariat) with regard to the finalized draft text of the Manual on Chemical Pollution to address legal and administrative aspects of HNS incidents and having noted that several delegations supported the need for a more in-depth review of the document, the Committee agreed to defer a decision on matter and invited interested delegations to submit any comments on the draft manual to MEPC 66, accordingly.

Updating of the IMO Dispersant Guidelines

8.6 The Committee recalled that, at MEPC 57, it had agreed to add an unplanned output to update the IMO Dispersant Guidelines to the planned output of the OPRC-HNS Technical Group.

8.7 Having considered document MEPC 65/8/1 (Secretariat) related to the finalized draft texts of parts I and II of the updated IMO Dispersant Guidelines, as developed by the OPRC-HNS Technical Group, the Committee:

- .1 approved the finalized draft texts of parts I and II of the Guidelines, as set out in annexes 1 and 2 of document OPRC-HNS/TG 14/3/2; and
- .2 instructed the Secretariat to carry out final editing and to prepare the respective parts for publishing through the IMO Publishing Service.

IMO in situ burning guidelines

8.8 The Committee recalled that MEPC 56, having considered a proposal by the United States to develop IMO in situ burning guidelines, had referred the proposal as a priority for consideration by the OPRC-HNS Technical Group at that session and had subsequently approved the inclusion of an unplanned output to the planned outputs of the Technical Group at MEPC 58.

8.9 Having considered document MEPC 65/8/2 (Secretariat) on the finalized draft text of the IMO in situ burning guidelines, which was agreed by the OPRC-HNS Technical Group at TG 14, the Committee:

- .1 approved the finalized draft text of the IMO in situ burning guidelines, as set out in the annexes to document OPRC-HNS/TG 14/3/3, as amended, taking into account the editorial comments provided; and
- .2 instructed the Secretariat to carry out any final editing and to prepare the document for publishing through the IMO Publishing Service.

Operational guidelines on sunken and submerged oil assessment and removal techniques

8.10 The Committee recalled that, at MEPC 60, having noted the OPRC-HNS Technical Group's consideration of a proposal by the United Kingdom for the development of Operational guidelines on sunken oil assessment and removal techniques, it had agreed to add this item to the planned outputs of the group.

8.11 Having considered document MEPC 65/8/3 (Secretariat) on the finalized text of the Operational guidelines on sunken and submerged oil assessment and removal techniques, which was finalized by the OPRC-HNS Technical Group, the Committee:

- .1 approved the finalized draft guidelines, as set out in annexes 1 and 2 to document OPRC-HNS/TG 14/3/6; and
- .2 instructed the Secretariat to carry out any final editing and to prepare the document for publishing through the IMO Publishing Service.

Risk assessment within an integrated multi-model oil spill prediction service

8.12 The Committee noted the information contained in document MEPC 65/INF.24 (Cyprus), providing a brief description of the Mediterranean Decision Support System for Marine Safety (MEDESS-4MS) project and the related risk assessment model for oil spills being developed within the MEDESS-4MS to address risks posed by oil spills in the Mediterranean Sea.

Maritime Emergency Response and Salvage Co-ordination Unit in the ROPME Sea Area

8.13 The Committee recalled that, at MEPC 64, it had considered the information provided by the Regional Organization for the Protection of the Marine Environment (ROPME)/Marine Emergency Mutual Aid Centre (MEMAC) on the establishment of the Maritime Emergency Response and Salvage Co-ordination Unit (MERCU) in the ROPME Sea Area.

8.14 The Committee further recalled that it had instructed the Secretariat to prepare an MEPC circular on the matter, which was duly prepared and circulated as MEPC.1/Circ.803.

8.15 The Committee, having noted the information contained in document MEPC 65/INF.25 (ROPME/MEMAC) providing updated information on the establishment of the MERCU for the ROPME Sea Area and further to comments raised by a number of delegations, requested ROPME to provide further clarification of the proposed direct costs to shipping from the implementation of the MERCU and confirmation that such costs have been minimized to the extent possible.

9 IDENTIFICATION AND PROTECTION OF SPECIAL AREAS AND PARTICULARLY SENSITIVE SEA AREAS

The need to evaluate the effectiveness of Particularly Sensitive Sea Areas and their Associated Protective Measures

9.1 The Committee noted document MEPC 65/9 (WWF and IUCN) on the need to periodically and thoroughly evaluate the effectiveness of Particularly Sensitive Sea Areas (PSSAs) and their Associated Protective Measures (APMs) using the Great Barrier Reef

PSSA as a possible case study since this area had been subjected to expansion of existing ports and the introduction of new port terminals. The Committee also noted the suggestion that such an evaluation would help determine the effectiveness of existing measures in relation to future increases in ship traffic and potential differences in vessel types, usage patterns and associated requirements for risk abatement. The Committee further noted the suggestion on the need to consider a review of other existing PSSAs, and to establish a regular process for review of all future PSSAs.

9.2 In this regard the Committee recalled that the current *Guidelines for the Identification and Designation of PSSAs* (paragraph 8.4 of the PSSA Guidelines adopted by Assembly resolution A.982(24)) already includes a mechanism for such reviews.

9.3 Several delegations highlighted the importance of the review process outlined in paragraph 8.4 of the PSSA Guidelines and stressed that the evaluation of the effectiveness of Associated Protective Measures should be an ongoing process for countries with PSSAs.

9.4 The delegation of Australia stated that the Commonwealth Government, in conjunction with the Queensland Government and the Great Barrier Reef Marine Park Authority, is undertaking a comprehensive strategic assessment to evaluate the effectiveness of current planning and management arrangements of the Great Barrier Reef World Heritage Area (GBRWHA) and adjacent coastal zone. The Committee noted that the Queensland Government is also developing a Great Barrier Reef Ports Strategy, which articulates its vision for port development and management of impacts associated with increased shipping in the GBRWHA. The Committee further noted that a North-East Shipping Management Plan was being developed as a co-operative arrangement between Commonwealth and Queensland Governments and industry that will provide a blue print for the management of shipping activities in the Great Barrier Reef, Torres Strait and the Coral Sea aimed at ensuring safe and sustainable shipping into the future with appropriate management measures implemented to reduce the risk from international shipping activities. The Committee also noted that, as part of this plan, it will submit to MEPC 66 a proposal to extend the existing Great Barrier Reef PSSA into an area of the south-west Coral Sea that is at risk from international maritime activities.

9.5 The Committee noted the view that, if the World Heritage Site Evaluation process is used in IMO, it should be reviewed in detail, including the legal basis to enable a full consideration on the applicability of the process in the context of the IMO and the PSSA concept.

9.6 The delegation of the United States indicated that it would review the sea area around the Florida Keys and the Papahānaumokuākea Marine National Monument PSSAs and would make use of the World Heritage Site Evaluation methodology to identify its utility and benefits and would report this to the Committee in due course.

9.7 The Committee, having considered the actions requested by the co-sponsors (MEPC 65/9, paragraph 11):

- .1 agreed that, as regards the recommendation to operationalize the review process, this is already dealt with under the existing PSSA Guidelines (paragraph 8.4 of the PSSA Guidelines adopted by Assembly resolution A.982(24));

- .2 Member Governments with PSSAs are reminded that they are required, in accordance with paragraph 8.4 of the PSSA Guidelines, to bring any concerns and proposals for additional measures or modifications to any APMs or the PSSA itself to IMO, particularly if the levels of threats from shipping have changed;
- .3 Member Governments which have ships operating in the area of the designated PSSA are encouraged to bring any concerns with the APMs to IMO so that any necessary adjustments may be made; and
- .4 Member Governments are encouraged, in their review of PSSAs and APMs, to use the World Heritage Site Evaluation methodology, as appropriate.

10 INADEQUACY OF RECEPTION FACILITIES

10.1 The Committee noted that the consideration of the inadequacy of port reception facilities is a standing item on its agenda.

10.2 Two documents had been submitted for consideration by the Committee under this agenda item. Since document MEPC 65/10 regarding the lack of adequate port reception facilities for the implementation of the revised MARPOL Annex V had already been considered under agenda item 7, only the report of the regional workshop on port reception facilities submitted by Belgium (MEPC 65/INF.19) was to be noted by the Committee under agenda item 10.

10.3 As part of the Action Plan on Tackling the Inadequacy of Port Reception Facilities approved by the Committee, TC 61 agreed to include the Plan of Assistance and Training on Port Reception Facilities for Developing Countries as a priority theme for the next ITCP biennium 2012-2013. In this regard, the Committee was informed that two workshops on port reception facilities had been planned: one in Antwerp for the benefit of Mediterranean and Arab countries, which took place in November 2012, and the other one in the United States for the benefit of Caribbean countries, which is scheduled for July 2013.

10.4 Subsequently, the Committee noted the information provided by Belgium in document MEPC 65/INF.19 on the conclusions drawn during the IMO Regional Workshop on Port Reception Facilities, which was hosted by the Public Waste Agency of Flanders and the Port of Antwerp for countries bordering the Mediterranean Sea as well as Djibouti, Oman and Yemen. The workshop was held from 27 to 29 November 2012 in Antwerp, Belgium, and was attended by 35 participants. Its main aim was to raise awareness on issues related to port reception facilities, including reception and storage of ship-generated waste, downstream waste management, and the final disposal of this waste.

10.5 The Committee, in recalling that the policy of "zero tolerance of illegal discharges from ships" can only be effectively enforced when there are adequate reception facilities in ports, urged all Parties to the MARPOL Convention, in particular port States, to fulfil their treaty obligations by providing adequate reception facilities for wastes generated during the normal operation of ships.

11 REPORTS OF SUB-COMMITTEES

11.1 The Committee had for its consideration the outcome of BLG 17, FSI 21, DE 57, DSC 17, FP 56 and SLF 55, and agreed to consider document MEPC 65/12/4 on "urgent matters emanating from FAL 38" under this agenda item as it relates to the outcome of FSI 21 concerning the list of certificates and documents required to be carried on board

ships. The Committee also noted that among the nine documents submitted under this agenda item, documents MEPC 65/11/3 (United States) and MEPC 65/11/4 (China) had already been considered under agenda item 4 – Air Pollution and Energy Efficiency.

OUTCOME OF BLG 17

11.2 The Committee noted that the Sub-Committee on Bulk Liquids and Gases (BLG) had held its seventeenth session from 4 to 8 February 2013, and its report on that session had been circulated under the symbols of BLG 17/18 and BLG 17/18/Add.1. Matters of relevance to the work of the Committee were reported in document MEPC 65/11/2.

11.3 The Committee approved, in general, the report of BLG 17 (BLG 17/18 and BLG 17/18/Add.1) and took action as indicated hereunder.

Outcome of ESPH 18

11.4 The Committee endorsed the decisions taken by BLG 17 regarding the outcome of ESPH 18, subject to concurrent decision of MSC 92.

Draft amendments to the IBC Code

11.5 The Committee approved, subject to concurrent decision of MSC 92, the draft amendments to the IBC Code, as set out in annex 29, for circulation, with a view to adoption at MEPC 66.

Evaluation of new substances

11.6 The Committee endorsed BLG 17's evaluation of two new substances and their consequential inclusion in the IBC Code.

Evaluation of cargo tank cleaning additives

11.7 The Committee endorsed BLG 17's evaluation of cargo tank cleaning additives found to meet the requirements of regulation 13.5.2 of MARPOL Annex II, as set out in annex 2 to document BLG 17/18, for inclusion in the next edition of the MEPC.2/Circular.

Evaluation of trade-named mixture products

11.8 The Committee endorsed BLG 17's evaluation of three trade-named mixture products for inclusion in List 3 of the MEPC.2/Circular, with validity for all countries and no expiry date.

Amendments to the Revised Guidelines and Specifications for Oil Discharge Monitoring and Control Systems for Oil Tankers

11.9 The Committee adopted, by resolution MEPC.240(65), the *2013 Amendments to the Revised Guidelines and Specifications for Oil Discharge Monitoring and Control Systems for Oil Tankers* (resolution MEPC.108(49)), set out in annex 30 .

11.10 In this connection, the delegation of the Netherlands, in referring to paragraph 2 to the newly-adopted resolution, which recommends that the 2013 amendments should apply to oil tankers constructed on or after 1 January 2005, drew the attention of the Committee to the fact that oil tankers constructed before 1 January 2005 should apply the provisions in

paragraph 1.2.2 of the original Guidelines (adopted by resolution MEPC.108(49)). The Committee endorsed the view of the delegation of the Netherlands.

Guidance on the timing of replacement of existing certificates by revised certificates

11.11 The Committee noted that BLG 17 had prepared the draft MSC-MEPC circular on *Guidance on the timing of replacement of existing certificates by revised certificates as a consequence of the entry into force of amendments to the IBC Code*.

11.12 In considering the draft circular, the delegation of the Netherlands suggested that the draft circular should only apply when chapters 17 and 18 of the IBC Code are amended and that MSC-MEPC.5/Circ.6, *Guidance on the timing of replacement of existing certificates by the certificates issued after the entry into force of amendments to certificates in IMO instruments* should apply when other chapters of the IBC Code are amended. The delegation also suggested modifying the title of the draft circular to emphasize its application.

11.13 In endorsing the view of the delegation of the Netherlands, the Committee approved, subject to concurrent decision of MSC 92, the draft MSC-MEPC circular on *Guidance on the timing of replacement of existing certificates by revised certificates as a consequence of the entry into force of amendments to chapters 17 and 18 of the IBC Code*, as set out in annex 4 to document BLG 17/18.

Guidance for evaluating the 2011 Biofouling Guidelines

11.14 The Committee approved the draft Guidance for evaluating the 2011 Guidelines for the control and management of ships' biofouling to minimize the transfer of invasive aquatic species, as set out in annex 10 to document BLG 17/18, and instructed the Secretariat to distribute it as MEPC.1/Circ.811.

Other outcome of BLG 17

11.15 The Committee recalled that the outcome of BLG 17 concerning ballast water management and prevention of air pollution from ships had been dealt with under agenda items 2 and 4, respectively.

Pollution incidents in the English Channel

11.16 The observer from CSC, supported by the observer from WWF, in referring to the recent serious pollution incidents in the English Channel which caused the death of over 4,000 seabirds covered in the substance polyisobutylene (alternatively polyisobutene or PIB), requested an urgent review of PIB's classification status under MARPOL Annex II. The observer urged Member Governments and international organizations to submit proposals and comments for consideration by MEPC 66 and/or BLG 18 as appropriate. As requested, the statement is set out in annex 31.

11.17 The delegation of the United Kingdom informed the Committee that the above-mentioned incidents were being investigated by the Maritime and Coastguard Agency. Their statement is set out in annex 31.

11.18 In this connection, the observers from IPTA and ICS expressed the view that any regulatory measures should only be considered after the full investigation of the incidents has been completed and the results have been made available to the Organization. The statement made by the observer from IPTA is set out in annex 31.

OUTCOME OF FSI 21

11.19 The Committee noted that the Sub-Committee on Flag State Implementation (FSI) had held its twenty-first session from 4 to 8 March 2012, and its report on that session had been circulated under documents FSI 21/18 and FSI 21/18/Add.1. Matters of relevance to the work of the Committee were reported in document MEPC 65/11/7.

11.20 The Committee approved, in general, the report of FSI 21 (FSI 21/18 and FSI 21/18/Add.1) and took action as indicated hereunder.

Certificates and documents required to be carried on board ships

11.21 The Committee recalled that FAL 36, MSC 88 and MEPC 62 had approved the list of certificates and documents required to be carried on board ships (FAL.2/Circ.123 MEPC.1/Circ.769-MSC.1/Circ.1409), and that MEPC 64 and MSC 91 had concurred with the recommendation of FSI 20 for the FSI Sub-Committee to initiate revisions to the list, as may be necessary.

11.22 The Committee noted that FAL 38, in considering the revised list of certificates and documents required to be carried on board ships prepared by FSI 21, as set out in annex 1 to document FSI 21/18/Add.1, had agreed to further modify the list in order to incorporate some amendments to the information on stability and to add a reference to the Grain Loading Manual.

11.23 The Committee approved the draft revised FAL.2-MEPC.1-MSC.1 circular on list of certificates and documents required to be carried on board ships, as set out in annex 1 to document FAL 38/15, subject to concurrent decision of MSC 92.

11.24 In this connection, the Committee also endorsed, subject to concurrent decision of MSC 92, the recommendation of FSI 21 that certificates carried on board have to be valid and drawn up in the form corresponding to the model where required by the relevant international convention and that a certificate may also be considered as "original" or "authentic" while containing an "authorized" electronically applied signature or stamp.

Draft Assembly resolution on Notification and circulation through the GISIS

11.25 The Committee approved, subject to concurrent decision of MSC 92, the draft Assembly resolution on *Notification and circulation through the GISIS*, set out in annex 32, for consideration and adoption at A 28.

MEPC circulars related to port reception facilities

11.26 The Committee recalled that MEPC 63 had instructed the FSI Sub-Committee to review and update various MEPC circulars related to port reception facilities, as necessary, in light of the entry into force on 1 January 2013 of the revised MARPOL Annex V, and also with regard to the amendments to MARPOL Annexes I, II, IV, V and VI on regional arrangements for port reception facilities, which would enter into force on 1 August 2013.

11.27 The Committee, having considered the draft circulars prepared by FSI 21, approved:

- .1 MEPC/Circ.470/Rev.1 on Waste reception facility reporting requirements;
- .2 MEPC.1/Circ.469/Rev.2 on Revised consolidated format for reporting alleged inadequacies of port reception facilities;

- .3 MEPC.1/Circ.644/Rev.1 on Standard format for the advance notification form for waste delivery to port reception facilities;
- .4 MEPC.1/Circ.645/Rev.1 on Standard format for the waste delivery receipt; and
- .5 MEPC.1/Circ.671/Rev.1 on Guide to good practice for port reception facility providers and users;

and instructed the Secretariat to issue them as a matter of urgency with the exception of circular MEPC/Circ.470/Rev.1, which should only be issued after the entry into force of the amendments on regional agreements under MARPOL on 1 August 2013.

11.28 Following the proposal of the delegation of the Bahamas, the Committee instructed the Secretariat to consolidate all the five circulars related to port reception facilities into one and submit it to MEPC 66 for approval.

Guidelines to assist investigators in the implementation of the Casualty Investigation Code

11.29 The Committee approved, subject to concurrent decision of MSC 92, the draft Assembly resolution on *Guidelines to assist investigators in the implementation of the Casualty Investigation Code* (resolution MSC.255(84)), as set out in annex 33, for consideration and adoption at A 28.

Revised harmonized reporting procedures

11.30 The Committee approved, subject to concurrent decision of MSC 92, the draft MSC-MEPC.3 circular on Revised harmonized reporting procedures – Reports required under SOLAS regulations I/21 and XI-1/6, and MARPOL articles 8 and 12, as set out in annex 5 to document FSI 21/18.

Amendments to the Survey Guidelines under the Harmonized System of Survey and Certification, 2011

11.31 The Committee approved, subject to concurrent decision of MSC 92, the draft Assembly resolution on Amendments to the *Survey Guidelines* under the *Harmonized System of Survey and Certification (HSSC), 2011* (resolution A.1053(27)), as set out in annex 34, for consideration and adoption at A 28.

2013 Non-exhaustive list of obligations under instruments relevant to the IMO Instruments Implementation Code

11.32 The Committee approved, subject to concurrent decision of MSC 92, the draft Assembly resolution on the *2013 non-exhaustive list of obligations under instruments relevant to the IMO Instruments Implementation Code (III Code)*, as set out in annex 35, for consideration and adoption at A 28.

Unified interpretation of the application of regulations governed by the building contract date, the keel laying date and the delivery date

11.33 The Committee approved, subject to concurrent decision of MSC 92, the draft MSC-MEPC.5 circular on the unified interpretation of the application of regulations governed

by the building contract date, the keel laying date and the delivery date for the requirements of the SOLAS and MARPOL Conventions, as set out in annex 9 to document FSI 21/18.

11.34 In this context, the Committee agreed that the unified interpretation should be applied from the date on which MSC 92 approves the draft circular, i.e. 21 June 2013.

OUTCOME OF DE 57

11.35 The Committee noted that the Sub-Committee on Ship Design and Equipment (DE) had held its fifty-seventh session from 18 to 22 March 2013 and its report on that session had been circulated under documents DE 57/25 and DE 57/25/Add.1. Matters of relevance to the work of the Committee were reported in document MEPC 65/11/8.

Amendments to the Unified Interpretation to regulation 12.2 of MARPOL Annex I

11.36 The Committee recalled that MEPC 62, in approving the amendments to the Unified Interpretation to regulation 12.2 of MARPOL Annex I (MEPC.1/Circ.753), had endorsed the view of IACS that, while the revised Unified Interpretation could serve as interim guidance, options should be explored to formalize the interpretation, including possible amendments to regulation 12 of MARPOL Annex I.

11.37 The Committee recalled further that MEPC 63, having considered documents MEPC 63/7/9 (IACS) and MEPC 63/7/5 (Denmark, Spain and BIMCO), providing further comments and proposals to the matter, had referred both documents to DE 57 for further consideration and advice.

11.38 The Committee noted that DE 57 had agreed to consider the proposed draft amendments to regulation 12 of MARPOL Annex I at its next session, and had recommended further amendments to the Unified Interpretation to regulation 12.2 of MARPOL Annex I (MEPC.1/Circ.753).

11.39 Having considered the draft text prepared by DE 57, the Committee approved the revised Unified Interpretation to regulation 12.2 of MARPOL Annex I, as set out in annex 36, and instructed the Secretariat to distribute it through MEPC.1/Circ.753/Rev.1. In this context, the Committee instructed the Secretariat to bring the unified interpretation in line with the usual format. The Committee also instructed the DE Sub-Committee to expedite its work on the matter, with the view to its finalizing at DE 58.

Standard specification for shipboard incinerators

11.40 The Committee recalled that the outcome of DE 57 concerning standard specification for shipboard incinerators had been dealt with under agenda item 4 (see paragraph 4.54).

Draft Polar Code

11.41 The Committee recalled that MEPC 63, after considering several options, had shown a preference for the option of amending existing instruments (e.g. SOLAS, MARPOL and its annexes, the BWM and AFS Conventions) with a reference to the Code, and had proposed that the entry-into-force dates could be coordinated by adjusting the date on which the amendments were deemed to be accepted. MEPC 63 also agreed that the Code should only include new issues and additional requirements which do not appear in existing instruments.

11.42 The Committee also recalled that MSC 91, in noting the outcome of MEPC 63 on the matter, had considered document MSC 91/8/1 (Argentina) proposing to structure the Code according to general provisions, safety measures (containing mandatory and recommendatory provisions) which would be included in a new chapter of SOLAS, and pollution prevention measures, which would be included in each of the MARPOL annexes and other pollution-related instruments as applicable. MSC 91 instructed the Sub-Committee to structure the draft Polar Code along the lines proposed in document MSC 91/8/1.

11.43 The Committee noted that, taking into account the decisions of MEPC 63 and MSC 91, DE 57 had continued its work on the development of the draft Polar Code. DE 57 invited the Committee to consider the report of the Polar Code Working Group (DE 57/WP.6), and in particular draft chapter 15 of the Polar Code, reproduced in the annex to document MEPC 65/11/8, as an urgent matter, with a view to agreement in principle. DE 57 further sought advice from the Committee on a number of specific issues, i.e. discharge of grey water, banning the use of heavy fuel oil, black carbon emissions and EEDI regulations for ships with a high-independent icebreaking capability.

11.44 In this context, the Committee recalled that issues on black carbon emissions and EEDI regulations for ships with a high independent icebreaking capability have been dealt with under agenda item 4. With regard to the question raised by the observer from CSC on having a place holder for provisions to address the black carbon emission, it was agreed that while it would not be appropriate to have this at this stage, this issue would be considered further following conclusions of the work of the BLG Sub-Committee in this respect.

General comments

11.45 The delegation of Norway, supported by a number of delegations, stated that they fully supported the development of a mandatory Polar Code by the Organization and were pleased to note that best practices are being implemented by the shipping industry to minimize the risks posed to the Polar environment. The delegation urged the Organization to expedite the work in this respect, with a view to better protection of the fragile nature of the Polar environment and addressing the uncertainty regarding the impact that increased activities would have on these regions.

11.46 The observer from ICS, supported by a number of delegations, raised the concern that many proposals submitted were not accompanied by data based on evidence or justification in the form of studies addressing the actual environmental impact assessment, cost-benefit analysis or scientific justification. Particular concern was raised on proposals made that would establish Special Area measures without adequate reception facilities and without the supporting studies usually associated with proposals for Special Areas or the subsequent scrutiny of the justification by the Committee.

11.47 The Chairperson of the DE Sub-Committee, in urging the Committee to give clear instructions to the Sub-Committee by resolving the outstanding issues emanating from DE 57 so that the target completion year of 2014 could be met, informed the Committee that, taking into account the decisions of MEPC 63 and MSC 91, work was being undertaken to structure the draft Polar Code along the lines proposed in document MSC 91/8/1 (Argentina).

Additional requirements to MARPOL Annex I

11.48 The Committee noted that DE 57, having prepared two options on additional requirements to those of MARPOL Annex I, as follows:

- option 1, allowing ships operating in Arctic waters to discharge oil or oil mixtures from machinery spaces into the sea under certain conditions, bearing in mind that under regulation 15.4 of MARPOL Annex I, for Antarctic area, any discharge into the sea of oil or oily mixtures from any ships shall be prohibited; and
- option 2, prohibiting any discharge into the sea of oil or oily mixtures from any ships,

had agreed to seek advice from the Committee on those two options.

11.49 Following the discussion, the Committee agreed to option 2, prohibiting any discharge into the sea of oil or oily mixtures from any ships.

11.50 The observer from INTERTANKO, in noting the Committee's decision, proposed that mandatory requirements for reception facilities should be developed so as to ensure and facilitate the effective implementation of the proposed requirements.

11.51 Having considered the proposal, the Committee invited Member Governments and international organizations to submit their proposals and comments on the matter to DE 58 for consideration.

11.52 The Committee noted that DE 57, having considered document DE 57/11/11 (FOEI et al.), supporting the inclusion of a provision in the draft Polar Code banning the use of heavy fuel oil (HFO) on ships operating in Arctic waters, had agreed to refer the document to MEPC 65 for consideration and advice.

11.53 After some discussion, the Committee endorsed the view of the majority of delegations who spoke that it was premature to regulate the use of heavy fuel oil (HFO) on ships operating in Arctic waters and noted the view of some delegations that it might be desirable and possible to have such regulations in place in the future.

Grey water

11.54 The Committee noted that DE 57 had agreed that proposals concerning introduction of regulations on grey water discharge should first be considered by MEPC as grey water is currently not regulated under MARPOL.

11.55 In the ensuing discussion, the proposal for regulating grey water discharge did not receive support.

Additional requirements to MARPOL Annex V

11.56 The Committee noted that DE 57, having prepared two options on additional requirements to those of MARPOL Annex V, as follows:

- option 1, only allowing discharge of food waste into the sea under certain conditions; and
- option 2, prohibiting discharge of all garbage into the sea,

had agreed to seek advice from the Committee on those two options.

11.57 Following the discussion, the Committee agreed to option 1 as listed in the paragraph above.

11.58 The delegation of Canada stated that it preferred option 2, prohibiting discharge of all garbage into the sea.

Shipboard incineration

11.59 The Committee had for its consideration document MEPC 65/11/5 (FOEI, CSC, Pacific Environment and WWF), proposing to include a provision in the draft Polar Code prohibiting shipboard incineration in Polar Regions within 12 nautical miles from the nearest land, ice shelf, land-fast ice, or area of ice concentration in excess of 10 per cent ice coverage.

11.60 In the ensuing discussion, the proposal did not receive support.

11.61 The co-sponsors, in noting the Committee's decision, indicated their intention to submit further information on the matter to a future session of the Committee for consideration.

Recommendatory provisions in the draft Polar Code

11.62 The Committee noted that DE 58 would further consider the recommendatory provisions in the draft Polar Code, as prepared by the working group established at DE 57.

11.63 In this connection, the Committee instructed the DE Sub-Committee to take into account the temperature testing requirements for ballast water management systems, as contained in the revised Methodology for information gathering and conduct of work of the GESAMP-BWWG (BWM.2/Circ.13/Rev.1), when considering relevant recommendations on the ballast water management systems.

Intersessional meeting

11.64 The Committee approved, subject to concurrent decision of MSC 92, the holding of an intersessional meeting of the Polar Code Working Group in the autumn of 2013, for submission to C 110 for endorsement.

11.65 With regard to the question of how the intersessional working group coordinates the work with the correspondence group established by DE 57, the chairperson of the DE Sub-Committee responded that the two groups would work in parallel and all the work on the draft Polar Code would be consolidated at DE 58.

OUTCOME OF DSC 17

11.66 The Committee noted that the Sub-Committee on Dangerous Goods, Solid Cargoes and Containers (DSC) had held its seventeenth session from 17 to 21 September 2012 and its report on that session had been circulated under document DSC 17/17. Matters of relevance to the work of the Committee were reported in document MEPC 65/11.

A new section in the IMSBC Code relating to the revised MARPOL Annex V

11.67 The Committee noted that DSC 17 had agreed, in general, to have a new section in the IMSBC Code relating to the revised MARPOL Annex V and that the Code's next set of amendments (03-15) would enter into force on 1 January 2017. In this context, the Committee recalled that MEPC 64 had instructed the Sub-Committee to consider how the

long-term implementation of the provisions of MARPOL Annex V concerning cargo residues could be facilitated by amendments to the IMSBC Code.

11.68 Following the suggestion by the delegation of Norway, the Committee agreed to instruct the DSC Sub-Committee to compile a list of solid bulk cargoes classified as harmful to the marine environment (HME), with a view to addressing the difficulties experienced by shipowners and operators in obtaining HME declarations.

11.69 In this connection, the observer from INTERCARGO expressed concern over the compilation of such a list, pointing out that varied concentrations of mining cargoes, due to different sources of origin, may lead to different results in terms of classification of HME.

OUTCOME OF FP 56

11.70 The Committee noted that the Sub-Committee on Fire Protection (FP) had held its fifty-sixth session from 7 to 11 January 2013 and its report on that session had been circulated under document FP 56/23. Matters of relevance to the work of the Committee were reported in document MEPC 65/11/1.

Survey and certification of fire protection of incinerator spaces

11.71 The Committee endorsed the view of FP 56 that the survey and certification of fire protection of incinerator spaces and waste stowage spaces should fall under the scope of the SOLAS Convention.

OUTCOME OF SLF 55

11.72 The Committee noted that the Sub-Committee on Stability and Load Lines and on Fishing Vessels Safety (SLF) had held its fifty-fifth session from 18 to 22 February 2013, and its report on that session had been circulated under document SLF 55/17. Matters of relevance to the work of the Committee were reported in document MEPC 65/11/6.

Draft amendments to MARPOL Annex I, BCH Code and IBC Code

11.73 The Committee approved the draft amendments to MARPOL Annex I on mandatory carriage requirements for stability instruments on board tankers, as set out in annex 37, for circulation, with a view to adoption at MEPC 66.

11.74 The Committee approved, subject to concurrent decision of MSC 92, the draft amendments to the BCH Code and the IBC Code on mandatory carriage requirements for stability instruments on board tankers, as set out in annexes 38 and 39, respectively, for circulation, with a view to adoption at MEPC 66.

11.75 The Committee, in noting that SLF 55 had prepared the draft amendments to the HSSC Guidelines concerning the amendments to MARPOL Annex I, the BCH Code and the IBC Code on mandatory carriage requirements for stability instruments on board tankers, as set out in annex 9 of document SLF 55/17, agreed to refer the text to the FSI Sub-Committee for inclusion in the future revision of the HSSC Guidelines, once the associated amendments to mandatory instruments have entered into force.

Use of national tonnage in applying international conventions

11.76 The Committee approved, subject to concurrent decision of MSC 92, the draft Assembly resolution on Use of national tonnage in applying international conventions, as set out in annex 40, for consideration and adoption at A 28.

12 WORK OF OTHER BODIES

12.1 The Committee had for its consideration the outcome of C 109 and MSC 91, including the outcome relating to review and reform of the Organization, as well as the Secretary-General's proposal on the restructuring of the sub-committees, which had been prepared at the request of MSC 91. The Committee noted that among the six documents submitted under this agenda item, document MEPC 65/12/4 on urgent matters emanating from FAL 38 had been dealt with under agenda item 11.

OUTCOME OF MSC 91

12.2 The Committee noted that the ninety-first session of the Maritime Safety Committee (MSC 91) had been held from 26 to 30 November 2012, and its report on that session had been circulated under the symbols MSC 91/22 and addenda. The matters of interest to the Committee were summarized in documents MEPC 65/12/2 and MEPC 65/12/2/Add.1.

12.3 The Committee, in recalling that the outcome of MSC 91 concerning energy efficiency and the draft Code for recognized organizations had been addressed under agenda items 4 and 6 respectively, noted the following information and actions taken by MSC 91, which were of interest to it:

- .1 the concurrent approval of MSC-MEPC.2/Circ.11 on *Interim Guidelines for determining minimum propulsion power to maintain the manoeuvrability of ships in adverse conditions*;
- .2 the concurrent adoption, by resolution MSC.340(91), of the amendments to chapters 17, 18 and 19 of the IBC Code, which are identical to the amendments to the Code adopted by resolution MEPC.225(64);
- .3 the concurrent decision on how to make the Polar Code mandatory, in particular that the structure of the draft Polar Code should have a general part, a part on safety measures and a part on pollution prevention measures;
- .4 the concurrent decision to invite interested Member States to submit proposals on draft guidelines on communication of information under IMO instruments to a future session, in particular on domestic legislation, including the frequency of such reporting and the language in which information should be provided;
- .5 the concurrent decision to instruct the FSI Sub-Committee to examine the difficulties encountered by Member States in complying with the various mandatory reporting requirements, while taking into account the establishment of the Ad Hoc Steering Group for Reducing Administrative Requirements (SG RAR), with a view to avoiding any duplication of work;

- .6 the concurrent approval of the draft Assembly resolution on the *Revised Guidelines on implementation of the ISM Code by Administrations*; and
- .7 the concurrent approval of MSC-MEPC.7/Circ.8 on the *Revised Guidelines for the operational implementation of the ISM Code by Companies*.

Draft IMO Instruments Implementation Code (III Code)

12.4 The Committee noted the following actions taken by MSC 91 with regard to the draft IMO Instruments Implementation Code (III Code):

- .1 the concurrent approval of the draft Assembly resolution on Adoption of the IMO Instruments Implementation Code (III Code), for submission to the Assembly at its twenty-eighth session, for adoption;
- .2 the approval of the draft amendments to SOLAS 1974 and Load Lines Protocol of 1988 to make the III Code mandatory, for circulation in accordance with the relevant articles of the aforementioned Conventions, with a view to adoption at MSC 93; and
- .3 the adoption of the amendments to COLREG 1972, LL 1966 and TONNAGE 1969 to make the III Code mandatory, for subsequent adoption by the Assembly at its twenty-eighth session (following the procedures for adoption of amendments for the COLREG 1972, LL 1966 and TONNAGE 1969 Conventions).

12.5 The Committee also noted that, in approving and adopting the above-mentioned amendments, MSC 91 had agreed to modify the definitions of "Audit Scheme" and "Audit Standard" to read:

- .1 "Audit Scheme" means the IMO Member State Audit Scheme established by the Organization and taking into account the guidelines developed by the Organization; and
- .2 "Audit Standard" means the Code for Implementation.

12.6 The Committee, in recalling that MEPC 64 had approved the draft amendments to MARPOL Annexes I, II, III, IV, V and VI to make the III Code and auditing mandatory, concurred with the modifications to the definitions of "Audit Scheme" and "Audit Standard", as agreed by MSC 91. Consequently, the Committee instructed the Secretariat to make the necessary consequential changes when preparing the circular letter of the draft amendments to MARPOL, with a view to adoption at MEPC 66.

Formal Safety Assessment

12.7 The Committee, having considered the outcome of MSC 91 concerning Formal Safety Assessment, took the following action:

- .1 approved the draft MSC-MEPC circular on the *Revised Guidelines for Formal Safety Assessment (FSA) for use in the IMO rule-making process*, as set out in annex 34 of document MSC 91/22/Add.2, noting MSC 91's concurrent approval;

- .2 approved the draft MSC-MEPC circular on the *Guidelines for the application of Human Element Analysing Process (HEAP) to the IMO rule-making process*, as set out in annex 35 to document MSC 91/22/Add.2, noting MSC 91's concurrent approval; and
- .3 noted that the FSA study on crude oil tankers had been completed and relevant action taken by MSC 91.

OUTCOME OF C 109

12.8 The Committee noted that the 109th session of the Council (C 109) had been held from 5 to 9 November 2012 and its summary of decisions had been issued under the symbol C 109/D. The matters of interest to the Committee were summarized in document MEPC 65/12, including the Council's decision concerning the report of MEPC 64. The Committee also noted that the outcome of C 109 on matters related to the review and reform mechanism established by the Secretary-General had been reported in document MEPC 65/12/1, which would be considered together with the Secretary-General's proposal on the restructuring of the sub-committees.

12.9 The Committee noted that the Council had approved the report of the sixty-fourth session of the Marine Environment Protection Committee, as set out in document C 109/6, and had decided to transmit it, together with its comments and recommendations, to the twenty-eighth regular session of the Assembly in accordance with Article 21(b) of the IMO Convention. The Committee also noted that the Council had approved the intersessional meetings of the OPRC-HNS Technical Group and the ESPH Working Group in 2013.

12.10 The Committee noted that the Council, having considered the information provided in document C 109/5/1 on the sixth consolidated audit summary reports, had requested the Maritime Safety Committee and the Marine Environment Protection Committee to consider the reports and advise it, in due course, of the outcome of their consideration.

12.11 The Committee further noted that, with regard to the issue of confidentiality in the context of a mandatory audit scheme, the Council had decided that the release of the executive summary report and the Member State's comments on the implementation of its corrective action plan to the public or Member States would be subject to the authorization of the Member State concerned prior to the audit; and had agreed to keep this aspect of the mandatory scheme under review.

RESTRUCTURING OF THE SUB-COMMITTEES

12.12 The Committee noted that, at C 108, the Secretary-General had reported on his review and reform initiative aimed at improving IMO's delivery mechanism to handle the ever-increasing workload as the Organization seeks to address newly-emerging priorities. Comprehensive reports discussing the aforementioned initiative were contained in documents C 108/3/3 and C 109/3/1.

12.13 The Committee also noted that C 109 had considered, among other issues involving the review and reform initiative, matters related to meeting support arrangements and application of the Committees' Guidelines (C 109/D and MEPC 65/12/1).

12.14 The Committee, in particular, noted that C 109 (MEPC 65/12/1) had considered and endorsed, in principle, the restructuring of the sub-committees, which would reduce the total number of sub-committees from nine to seven with the potential saving of four meeting-weeks per biennium.

12.15 The Committee further noted that the Council had invited the MSC and MEPC to give early consideration to the implications and practicability of the relevant proposals under their purview, including appropriate new names for the sub-committees in question and to report to C 110 accordingly.

12.16 In this connection, the Committee noted that MSC 91 had preliminary discussions on matters related to the review and reform initiative and requested the Secretariat to prepare a detailed proposal containing proposed names, terms of reference, provisional agendas and biennial agendas, cost-benefit analysis and meeting dates for each body, for consideration at MEPC 65 and MSC 92. In considering the proposed changes to the working practices affecting the Committees' Guidelines and the proposed priority-setting mechanism for the Organization, MSC 91 decided to further consider those matters at MSC 92 and agreed to establish a working group in this regard, and subsequently invited Member States to submit comments and proposals to its next session.

Secretary-General's proposal

12.17 In introducing his proposal for the restructuring of the sub-committees (MEPC 65/12/3), the Secretary-General stated that, taking into account the comments expressed at MSC 91 and having consulted with the MSC and MEPC Chairmen, the Chairmen of the subsidiary bodies and specialist groups established by them, and having sought the views of the expert bodies themselves at the beginning of this year during various sub-committee meetings, he had prepared the detailed proposals for consideration, reflecting major comments already expressed at the sub-committee meetings.

12.18 The Secretary-General further advised that a synopsis of the implications and practicability of the various proposals is provided in paragraphs 5 to 17 of document MEPC 65/12/3. The proposals are, generally speaking, the amalgamation of the FP, DE and SLF Sub-Committees into two sub-committees, as set out in paragraphs 5 to 7; the amalgamation of the NAV and COMSAR Sub-Committees into one sub-committee, as set out in paragraphs 8 to 11; the slight restructuring of the BLG and DSC Sub-Committees, set out in paragraphs 12 to 15; and the renaming of the BLG, DSC, FSI and STW Sub-Committees to better reflect their current work, as set out in paragraphs 12, 13 and 16 respectively. The proposed terms of reference, provisional agenda for 2014, and arrangements for the session and the biennial agenda for 2014-2015 of the sub-committees are set out in the attached annexes.

12.19 The Secretary-General pointed out that the proposed names of the new sub-committees reflect the draft terms of reference for each body as set out in this document and, as such, they may need to be changed based on the final terms of reference and the preferences of the Committees on those issues which should be finalized, in his view, at the Assembly.

12.20 With regard to the restructuring of the BLG Sub-Committee, which is more related to the work of Committee, the Secretary-General explained that, while the original proposals put forward to the Council last year was to rename the BLG Sub-Committee as the Sub-Committee on Marine Environment, he modified this proposal taking into account the views expressed at the Council and the Maritime Safety Committee. The proposal is to rename the existing BLG Sub-Committee as the Sub-Committee on Pollution Prevention and Response (PPR) in order for it to deal with specific pollution prevention and response issues in addition to its traditional work on bulk liquid cargoes.

12.21 The Secretary-General stressed that he had maintained in his proposals a very important principle which was agreed at 2005, that each sub-committee should cover respective marine environment issues and that the Committee may give instructions to any of the sub-committees, as and when necessary. The sub-committees are equally subsidiary bodies of the MSC and the MEPC.

12.22 The Secretary-General informed the Committee that document MEPC 65/INF.16 had been prepared in response to the discussions at C 109 and MSC 91 on the anticipated cost reduction and benefits of the sub-committee restructuring with the assumption that, under the new structure, seven sub-committee meetings will be held each year. The document also covers potential opportunities for cost reduction in the Secretariat and possible other benefits contemplated as information for the Committee.

12.23 The Secretary-General also emphasized the importance of restructuring of the sub-committees with the total framework of the review and reform initiative covering:

- the long-term financial sustainability report;
- the review of work method of the Organization;
- the review of the reporting procedure, including proposal for trial for new reporting procedures to be discussed at the Council session next year;
- the review of the meeting support arrangement in the Secretariat;
- the creation of a priority setting mechanism;
- staff motivation and initiatives in the Secretariat;
- staff succession and evolution plan under consideration; and
- the continuous activities of review and reform beyond 2014.

12.24 In expressing his appreciation to Member-Governments for their understanding on the need for review and reform as reflected at the last Council session and to the Secretariat staff for support and cooperation, the Secretary-General welcomed the expert views from the Sub-Committees and the Maritime Safety Committee on the implications and practicability of the revised proposals as set out in document MEPC 65/12/3 to be reported to C 110 in July this year. In conclusion, the Secretary-General stated that a final decision should be made at the Council in July this year for the endorsement by the Assembly, at its twenty-eighth session.

General comments

12.25 In the ensuing discussion, there was wide support for the Secretary-General's proposals for restructuring of the sub-committees as part of the wider programme of review and reform of the Organization.

12.26 The delegation of China expressed the view that the restructuring of the sub-committees should not result in the increase of the number of intersessional meetings, as this would potentially impose extra burdens on those delegations which are not from native English speaking countries. The sub-committees should only deal with technical matters and any issue of policy should be retained by the Committees. The terms of reference of the sub-committees should not go beyond the requirements and provisions in

the Organization's Convention. The final decision on the restructuring of the sub-committees should be made by all Member States by consensus.

12.27 The delegation of Brazil emphasized that the Committees should function as policy-making bodies and the sub-committees as purely technical bodies, in line with the current policy of the Organization regarding the role of the Committees and sub-committees, as reflected in paragraph 3.1 of the Guidelines in MSC-MEPC.1/Circ.4/Rev.2.

12.28 The delegation of the Cook Islands, in emphasizing that the final decision on this issue should be made by all Member States at the Assembly, suggested that a joint MSC-MEPC working group be established at MSC 92 to accommodate the detailed consideration of the proposal. In referring to the recent meetings of the STW Sub-Committee and LEG and FAL Committees, the delegation expressed the view that efficiency gains should be pursued with the current structure, e.g. reducing the meeting frequency for those Committees and sub-committees with light workloads. The delegation expressed concerns over the proposed amalgamation of the FP, DE and SLF Sub-Committees into two sub-committees and the possible increase of the number of intersessional working groups.

12.29 The delegation of the United Kingdom was of the view that, in order for the Organization to progress work in a timely manner with a reduced number of meeting weeks, it is essential that the work programme is effectively managed. The addition of extra intersessional meetings and extra days of translation is acceptable on an interim basis to facilitate the completion of key outputs and smooth the transition to the new sub-committee structure. The delegation also suggested that the Organization needs, on a biennial basis, to maintain a flexible approach to the composition of its sub-committees in order to meet the constantly changing demands placed on the Organization and make-up of the High-level Action Plan.

12.30 The delegation of Vanuatu shared the concerns raised by the delegation of the Cook Islands on the merging of three sub-committees into two, and the possible increase of the intersessional working groups. The delegation suggested that more consideration should be given to the reduced frequency, as well as meeting days of the LEG and FAL Committees and the STW Sub-Committee.

12.31 The delegations of the Netherlands and Chile, in supporting the Secretary-General's proposal, indicated their intention to provide detailed comments to the working group to be established at MSC 92.

Restructuring and renaming of the BLG and DSC Sub-Committees

12.32 The delegations of Brazil and China, in supporting the restructuring and renaming of the BLG and DSC Sub-Committees, suggested:

- .1 the inclusion of the word "technical" in paragraphs 1 and 4 of terms of reference for all sub-committees. Paragraph 1 of the terms of reference would read "... the Sub-Committee will consider technical matters related to following subjects ...", and paragraph 4 of the terms of reference would read "Any other relevant technical issues referred to it by the Committees ...";
- .2 the deletion of the reference to "air pollution" in paragraph 1.1 of the terms of reference for the proposed Sub-Committee on Pollution Prevention and Response to be in line with the IMO Convention, the MARPOL Convention as well as the UNCLOS; and

- .3 further modifications to the proposed name of the Sub-Committee on Pollution Prevention and Response to read "Sub-Committee on Marine Pollution Prevention and Response".

12.33 A number of delegations supported the suggestions made by the delegations of Brazil and China.

12.34 A number of other delegations did not agree with the above proposals, pointing out that the BLG Sub-Committee had been working on matters related to prevention of air pollution from ships since 1997. Those delegations were of the view that, apart from technical matters, all the sub-committees also deal with operational matters, therefore, it would be desirable to keep the terms of reference unchanged.

12.35 Following the discussion, the Committee, in endorsing the suggestion by the Chairman, agreed:

- .1 to the inclusion of reference "technical and operational matters" in the draft terms of reference for all the sub-committees;
- .2 that the reference to "air pollution" in paragraph 1.1 of the terms of reference for the proposed Sub-Committee on Pollution Prevention and Response should be put in square brackets; and
- .3 that the new name for the BLG Sub-Committee should be decided based on its final terms of reference.

12.36 The delegation of Cyprus reserved its position on the renaming of the BLG and DSC Sub-Committees, indicating its intention to provide comments to the working group to be established at MSC 92.

12.37 The delegation of Sweden, supported by the delegation of Denmark, proposed that ESPH-related issues should be preferably dealt with by the proposed TOC Sub-Committee, so that all cargo related issues could be dealt with by one sub-committee. With regard to the possible heavy workload that the TOC Sub-Committee may have, the delegation of Sweden suggested that this could be overcome by properly adjusting resources for the sub-committees.

12.38 The delegation of Norway suggested that, taking into account the workload of the ESPH Working Group, the group should meet only intersessionally once a year or once every two years and should no longer meet during the session of the Sub-Committee, so that a place for a working group during the session of the Sub-Committee could be saved to accommodate other important subjects.

12.39 With regard to the suggestion by the delegation of Germany on the establishment a ballast water working group to further develop the guidance for ballast water sampling and analysis, the Chairman stated that the final selection of the working and drafting groups should be made at a later stage, taking into account the submissions received.

12.40 Following the discussion, the Committee agreed, in principle, to the restructuring and renaming of the BLG and DSC Sub-Committees, together with the proposed names, terms of reference, provisional agenda for 2014, working arrangements for 2014 and biennial agendas for 2014-2015, as set out in annexes 4 and 5 to document MEPC 65/12/3, subject to concurrent decision of MSC 92, noting detailed consideration would take place at that session. The Committee invited MSC 92 to take into account comments and decisions made at MEPC 65 during its deliberation, including those outstanding issues referred to in paragraph 12.35.

Renaming of the FSI Sub-Committee

12.41 The Committee agreed, in principle, to the renaming of the FSI Sub-Committee to the Sub-Committee on Implementation of IMO Instruments (III) and its terms of reference, provisional agenda for 2014, working arrangements for 2014 and biennial agenda for 2014-2015, as set out in annex 6 of document MEPC 65/12/3, subject to concurrent decision of MSC 92, noting detailed consideration would take place at that session.

12.42 With regard to the proposed working arrangements for the first session of the III Sub-Committee, the Committee confirmed that there would be no intersessional working group on Casualty Analysis and Statistics.

Restructuring of the FP, DE, SLF, NAV and COMSAR Sub-Committees and the renaming of the STW Sub-Committee

12.43 The Committee agreed, in principle, to the amalgamation of the FP, DE and SLF Sub-Committees into two sub-committees; the amalgamation of the NAV and COMSAR Sub-Committees into one sub-committee; the renaming of the STW Sub-Committee; together with the proposed names, terms of reference, provisional agenda for 2014, working arrangements for 2014 and biennial agendas for 2014-2015, as set out in annexes 1, 2, 3 and 7 of document MEPC 65/12/3, subject to concurrent decision of MSC 92, noting detailed consideration would take place at that session.

WORKING TOWARDS A SUSTAINABLE MARITIME TRANSPORTATION SYSTEM

12.44 The Committee recalled that MEPC 64 had noted the outcome of the United Nations Conference on Sustainable Development (Rio+20) as well as IMO's own contribution to the follow-up of the United Nations-led work within the context of the development of Sustainable Development Goals. In this regard, MEPC 64 noted that the Secretary-General had defined eight key elements or "pillars" on which IMO's Sustainable Development Goals for shipping and the maritime industries should focus, and had initiated an internal process to establish a vision for sustainable maritime development.

12.45 In referring to the theme of World Maritime Day 2013 "Sustainable Development: IMO's Contribution Beyond Rio+20", the Secretary-General gave the Committee a brief update on the current work in the follow-up to Rio+20.

12.46 The Secretary-General informed the Committee that, after the Rio+20 Conference last year, the matter was discussed within the United Nations system and now the intergovernmental process under the United Nations General Assembly was underway, primarily through the Open Working Group for Member States, towards the development of Sustainable Development Goals. The IMO Secretariat is involved in consultations as part of the United Nations system providing relevant information to the Open Working Group. The substantial Sustainable Development Goals were expected to begin to emerge by the end of this year.

12.47 The Secretary-General continued that, with a view to IMO contributing to the overall United Nations effort to ensure sustainable development, and to highlight the importance of maritime transportation in this context, he had, with his colleagues in the Secretariat, initiated a process of informal consultations with various stakeholders and organizations to develop a concept for sustainable maritime development, as his initiative. If successful, the consultation would result in a vision for a future sustainable maritime transportation system serving the needs of society through safer, cleaner, more efficient and reliable maritime transportation, as shipping is essential for sustainable development as well as global growth and prosperity.

12.48 The Secretary-General explained that, as a matter of fact, it was his original intention last year to involve the Committees and the Council in generating views to develop IMO's formal contribution to the inter-governmental process. However, taking into account the present status of the inter-governmental processes in the United Nations, it had not been possible to provide IMO's views on the United Nations-wide Sustainable Development Goals – as these have not yet been developed – and he therefore decided his initiative would not be a contribution to the current formal process within the United Nations, as such, but building upon the global momentum to follow up the outcome of Rio+20 and "The Future We Want" document.

12.49 The Secretary-General stated that the Organization would generate a concept of a sustainable maritime transportation system for further consideration in the context of this year's World Maritime Day theme. The progress towards the development of such a concept was being considered with shipping industry partners. It was his intention to provide the concept in connection with World Maritime Day 2013 and celebration in September as his own contribution for celebrating this year's World Maritime Day under the theme on sustainability of the maritime transportation system.

12.50 In response to the question raised by the delegation of the Cook Islands concerning the economic aspect of the maritime transportation system, the Secretary-General pointed out that "The Future We Want" document, as the outcome of Rio+20, contains three important elements: environmental, social and economic. The informal consultations with various stakeholders cover various elements forming the transportation system, not only shipping companies but also for example port management, security and shipbuilding, as well as human resources, training and education. It covers not only environment aspects but also social as well as economic aspects. The Secretary-General wished that through the wide consultations over the summer, a clear concept of sustainability of the international transportation system could form his contribution towards this year's World Maritime Day celebration.

13 HARMFUL ANTI-FOULING SYSTEMS FOR SHIPS

13.1 The Committee noted that the International Convention on the Control of Harmful Anti-Fouling Systems on Ships had been in force since 17 September 2008 and that, to date, the Convention has 65 Parties representing 82.25 per cent of the gross tonnage of the world's merchant fleet. All those States that have not yet ratified this Convention were invited to do so at the earliest opportunity.

13.2 In considering the outcome of BLG 17 (MEPC 65/11/2), the Committee noted that under item 11, it had approved the draft MEPC circular on Guidance for evaluating the 2011 Guidelines for the control and management of ships' biofouling to minimize the transfer of invasive aquatic species.

13.3 The Committee, noting that no documents had been submitted to the current session, invited Member States and observer organizations to provide information or proposals under this item to future sessions of the Committee, recognizing its importance for the smooth and coordinated implementation of the AFS Convention.

14 PROMOTION OF IMPLEMENTATION AND ENFORCEMENT OF MARPOL AND RELATED INSTRUMENTS

14.1 The Committee noted that document MEPC 65/INF.22 (Canada) provided useful information on a new system (Eltide System) for managing wastewater from ships. The system is designed to eliminate discharges of bilge water, sewage water and grey water overboard from a ship into the sea.

15 TECHNICAL CO-OPERATION ACTIVITIES FOR THE PROTECTION OF THE MARINE ENVIRONMENT

Thematic priorities for the Integrated Technical Co-operation Programme (ITCP) for 2014-2015

15.1 The Committee recalled that TCC 61 (21 to 23 June 2011) approved the ITCP 2012-2013 biennium, which reflected the High-level Action Plan of the Organization, and its related thematic priorities.

15.2 The Committee noted that, in the context of the Secretary-General's review and reform initiatives related to technical co-operation as reflected in document C 109/3/1, a limited number of high priority technical co-operation themes have been selected to ensure a more targeted delivery to maximize the impact of the ITCP.

15.3 The Committee also noted that, while the regional needs for technical assistance have been, to a large extent, identified based on the feedback from the IMO regional coordinators and regional ITCP partners, the high-priority national needs would be identified and based on the Country Maritime Profile provided by Member States.

15.4 The Committee further noted that, to facilitate its work, the Secretariat has selected four high thematic priorities related to the protection of the marine environment for the 2014-2015 biennium covering pollution prevention, pollution response, protection of the marine biodiversity, prevention of pollution by dumping of wastes and other matters as set out in the annex to document MEPC 65/15.

15.5 The Committee, having considered the document MEPC 65/15 and the comments by the delegation of the Netherlands, noted that the new ITCP covering the 2014-2015 biennium is expected to be approved by the TCC at its sixty-third session (July 2013), and approved the thematic priorities as follows:

- .1 assisting countries in implementing the MARPOL Convention in general and more specifically in providing port reception facilities, establishing of Special Areas or PSSAs, introducing waste management and in the uniform application of the revised Annex V, and of Annex VI on energy efficiency measures for ships (EEDI, SEEMP), as well as assisting countries in the uniform implementation of the AFS Convention;
- .2 assisting countries in implementing the OPRC Convention and the OPRC-HNS Protocol and enhancing regional cooperation in marine pollution preparedness, response and cooperation as well as addressing aspects of the implementation of the relevant international regimes on liability and compensation for oil and HNS pollution damage;

- .3 strengthening national and regional capacity and fostering regional cooperation for the ratification and effective implementation of the Hong Kong Convention on ship recycling, of the BWM Convention and of the ships biofouling guidelines; and
- .4 assisting countries in ratifying and implementing the London Protocol on prevention of pollution by dumping of wastes and other matter.

Update of the activities under the ITCP and the Major Projects (2 July 2012 – 8 February 2013)

15.6 The Committee noted the information provided in document MEPC 65/15/1 on the Organization's technical co-operation activities related to the protection of the marine environment, during the period from 2 July 2012 to 8 February 2013, under the ITCP as well as under the major projects which are financed through external sources. These activities were aimed at assisting Member States in the implementation of the provisions of the relevant IMO Conventions (AFS, BWM, MARPOL, OPRC, OPRC-HNS, Ship Recycling), including the London Protocol.

15.7 The Committee further noted that, during the period under review, significant progress has been achieved through the major projects, namely the GEF-UNDP-IMO GloBallast Partnerships project and its related initiatives and the Global Industry Alliance (GIA); the GI WACAF project which aims at assisting the West, Central and Southern African region in implementing the OPRC Convention; the feasibility study on LNG-fuelled short-sea and coastal shipping in the wider Caribbean region; and the IMO-KOICA-PEMSEA project on environmental sensitivity mapping in the gulf of Thailand, including the EU-funded SAFEMED II project, implemented by the Regional Marine Pollution Emergency Response Centre for the Mediterranean Sea (REMPEC) on behalf of IMO, as well as the completion of the GEF-IBRD-IMO Marine Electronic Highway (MEH) Demonstration Project on 31 December 2012, and the IMO-KOICA Project on building capacities in East Asian countries to address greenhouse gas (GHG) emissions from ships, which will be completed in May 2013.

15.8 The delegations of Chile and Nigeria highlighted the importance of IMO's ITCP activities and the key role these activities play in capacity-building for implementation of the IMO Conventions and encouraged the Secretariat to continue the capacity-building efforts. The Committee noted the information provided by Indonesia regarding the launch of the IMO-IPIECA Global Initiative programme for the East Asia region aimed at assisting the countries in the region to build capacity in oil spill preparedness and response. The Committee also noted the request by the League of Arab States to continue technical co-operation between IMO and the members of the League of Arab States to encourage ratification of IMO Conventions. The Committee further noted with appreciation the information provided by ROPME that the GEF-UNDP-IMO GloBallast Partnerships project won the 6th Marine BizTV International Maritime Award for "Best Innovative Project", held in Dubai, United Arab Emirates on 15 May 2013.

15.9 In summary, the Chairman recalled that the constituent programmes of IMO's ITCP could only be delivered if the required funding is secured from IMO's internal resources and/or external donor contributions. He expressed appreciation for all the financial and in-kind contributions to the ITCP and major projects and invited Member States and international organizations to continue and, if possible, increase their appreciable support for IMO's technical co-operation activities so that successful delivery of the programme could be achieved.

16 ROLE OF THE HUMAN ELEMENT

16.1 The Committee recalled that MSC 89 and MEPC 62 agreed to entrust a leading and coordinating role to the STW Sub-Committee to address the issue of human element.

16.2 The Committee recalled further that MEPC 63 agreed that it could refer human element issues relating to the environment directly to the Joint MSC/MEPC Working Group on the Human Element, and that the Working Group should consider the issues referred to it without further discussion in the plenary of the STW Sub-Committee.

16.3 The Committee noted that there were no documents submitted under this agenda item to this session of the Committee. However, in view that the agenda of the STW Sub-Committee contains items of relevance to the work of the Committee, the Committee agreed to keep the item in its agenda to consider any human element-related issues and the outcome of the STW Sub-Committee on the matter as appropriate.

16.4 In this connection, the delegation of the Bahamas reminded the Committee that STW 44 had proposed the deletion of three joint MEPC/MSC outputs under the joint parent bodies, MSC and MEPC, from the agenda of the next biennium.

16.5 The observer from ITF made a statement on the need for the Committee to retain a direct control of the work of the Human Element Working Group and the need to initiate the consideration of the effect on seafarers and the industry at large as a result of newly-adopted marine environment protection regulations. As requested, the statement is set out in annex 41.

17 NOISE FROM COMMERCIAL SHIPPING AND ITS ADVERSE IMPACTS ON MARINE LIFE

17.1 The Committee recalled that MEPC 62, having noted that a new output had already been planned under the biennial agenda of the DE Sub-Committee to develop technical guidelines to address the issue of noise from commercial shipping and its adverse impacts on marine life, it had instructed the DE Sub-Committee to address this issue. The Committee also decided to keep the item on its agenda, with a view to consider the outcome of the DE Sub-Committee on the matter.

Outcome of DE 57 on noise from commercial shipping and its impact on marine life

17.2 The Committee noted that DE 57 was held from 18 to 22 March 2013 and its report had been circulated under document DE 57/25. However, due to the close proximity between DE 57 and MEPC 65, the outcome of DE 57 concerning this agenda item will be reported to MEPC 66 for consideration.

18 WORK PROGRAMME OF THE COMMITTEE AND SUBSIDIARY BODIES

Items in the biennial agendas of the DE, DSC, FP, COMSAR, NAV, SLF and STW Sub-Committees relating to environmental issues

18.1 The Committee, having considered document MEPC 65/WP.4, approved the items in the biennial and post-biennial agendas of the DE, DSC, FP, COMSAR, NAV, SLF and STW Sub-Committees for 2014-2015 biennium which relates to environmental issues, as set out in annex 42, and requested the Secretariat to inform MSC accordingly; bearing in mind that these agendas may have to be adjusted in accordance with the decision of C 110 on the restructuring of sub-committees.

Biennial agendas of the BLG Sub-Committee

18.2 The Committee noted that the biennial agenda of the BLG Sub-Committee and its provisional agenda for BLG 17 were approved by MSC 91 and MEPC 63 and further noted that BLG 17 (4 to 8 February 2013) revised some of its planned outputs for the 2014-2015 biennium, including the provisional agenda for BLG 18, subject to approval by MEPC 65 and MSC 92.

18.3 The Committee, having considered annex 1 to document MEPC 65/WP.5, approved the revised biennial agenda of the BLG Sub-Committee for the biennium 2014-2015 and the provisional agenda for BLG 18, as set out in annex 43, and requested the Secretariat to inform MSC accordingly; bearing in mind that these agendas may have to be adjusted in accordance with the decision of C 110 on the restructuring of sub-committees.

Biennial agendas for the FSI Sub-Committee

18.4 The Committee noted that MSC 91 and MEPC 64 approved the biennial agenda of the FSI Sub-Committee and the provisional agenda for FSI 21 and further noted that FSI 21 (4 to 8 March 2013) revised some of the planned outputs of the FSI Sub-Committee for the 2014-2015 biennium and provisional agenda for FSI 22, subject to approval by MEPC 65 and MSC 92.

18.5 The Committee, having considered annex 2 to document MEPC 65/WP.5, approved the revised biennial agenda of the FSI Sub-Committee for the biennium 2014-2015 and the provisional agenda for FSI 22, as set out in annex 44, and requested the Secretariat to inform MSC accordingly; bearing in mind that these agendas may have to be adjusted in accordance with the decision of C 110 on the restructuring of the sub-committees.

Status of the planned outputs of for the MEPC for the 2012-2013 biennium

18.6 The Committee noted that in accordance with paragraph 9.1 of the *Guidelines on the application of the Strategic Plan and the High-level Action Plan of the Organization*, adopted by resolution A.1013(26), the reports on the status of planned outputs included in the High-level Action Plan and priorities for the 2012-2013 biennium should be prepared and annexed to the report of each session of the Sub-Committees and Committees and to the biennial report of the Council to Assembly.

18.7 The Committee further noted that, pursuant to resolution A.1038(27), the Assembly requested the MEPC to take specific action on the approved *High-level Action Plan of the Organization and priorities for the 2012-2013 biennium*, in particular table 2 on the High-level actions and related planned outputs in full observance of the Guidelines contained in resolution A.1013(26).

18.8 The Committee approved the status of planned outputs for the 2012-2013 biennium, which was prepared by the Secretariat on the basis of annex 28 of MEPC 64/23, taking into account the progress made at this session, is set out as annex 45.

Proposals for the High-level Action Plan of the Organization and priorities for the 2014-2015 biennium

18.9 The Committee noted that, in the context of resolution A.1037(27) on the *Strategic plan for the Organization (for the six-year period 2012 to 2017)* and resolution A.1038(27) on the *High-level Action Plan of the Organization and priorities for the 2012-2013 biennium*, proposals for planned outputs of the Committee need to be prepared for consideration by

MEPC 65 for inclusion in the Organization's High-level Action Plan and priorities for the 2014-2015 biennium.

18.10 The Committee also noted that the Secretariat, in consultation with the Chairman and taking into account the progress made by the Committee during the current biennium (MEPC 64/23/Add.1, annex 28 and MSC 91/22, annexes 38 and 39), has prepared the MEPC's proposals for the High-level Action Plan for the Organization and priorities for the 2014-2015 biennium in the form of modifications to those for the 2012-2013 biennium for submission to the Council at its 110th session.

18.11 The Committee noted further that, pursuant to the decision of C 109 (C 109/D, paragraph 3.2(ii)) to use the GISIS Organizational Planning Database formats, annex 1 of document MEPC 65/WP.13 showed the changes to the 2012-2013 biennial agenda, and annex 2 to document MEPC 65/WP.13 showed the accepted outputs on the post-biennial agenda to be transferred to the Committee's proposed biennial agenda for 2014-2015.

18.12 In considering annex 1 to document MEPC 65/WP.13, some delegations expressed concerns regarding the descriptions of outputs, in particular, those "continuous" outputs, which are not based on "SMART" terms as required under resolution A.1013(26). The Chairman informed that Committee that the High-level Actions would be reviewed by MSC 92 and the Council Working Group on Prioritization for approval by C 110 and suggested that interested delegations should get involved in the review process on outputs pertaining to MEPC.

18.13 The Committee, having considered document MEPC 65/WP.13, approved the proposals for the High-level Action Plan of the Organization and priorities for the 2014-2015 biennium in respect of the MEPC, as set out in annex 46. In the meantime, the Committee instructed the Secretariat to undertake a holistic review of the outputs to ensure consistency across the work of the Organization and to submit any further changes to the annexed proposals emanating from NAV 58 and DSC 18 to CWGSP 13 or C/ES.27, as appropriate.

Items to be included in the agendas of MEPC 66, MEPC 67 and MEPC 68

18.14 The Committee, having considered document MEPC 65/WP.6 and taking into account the decisions made at this session, approved the items to be included in the agendas for MEPC 66, MEPC 67 and MEPC 68 and the proposed groups, as set out in annex 47.

Dates for MEPC 66, MEPC 67 and MEPC 68

18.15 The Committee noted that MEPC 66 would be held from 31 March to 4 April 2014 and that MEPC 67 and MEPC 68 were tentatively scheduled to be held in October 2014 and May 2015, respectively.

Working/review/drafting groups at MEPC 66

18.16 The Committee agreed, in principle, to establish the following working/review/drafting groups at MEPC 66:

- .1 Ballast Water Review Group;
- .2 Working Group on Air Pollution and Energy Efficiency;

- .3 Working Group on Ship Recycling;
- .4 Working Group on further measures to enhance energy efficiency; and
- .5 Drafting Group on Amendments to Mandatory Instruments.

Correspondence groups

18.17 The Committee agreed to establish the following intersessional Correspondence Groups, which would report to MEPC 66:

- .1 Correspondence Group on Ship Recycling; and
- .2 Correspondence Group on the use of electronic record books under MARPOL.

Intersessional meetings

18.18 The Committee agreed to hold the following intersessional meetings, subject to approval by the Council:

- .1 OPRC/HNS Technical Group to be held in the week before MEPC 66 in March 2014, which should report to MEPC 66, subject to the restructuring of the sub-committees;
- .2 ESPH Working Group to be held in October 2014, subject to the concurrent decision of MSC 92; and
- .3 Polar Code Working Group to be held in the autumn of 2013, subject to concurrent decision of MSC 92.

19 APPLICATION OF THE COMMITTEES' GUIDELINES

19.1 The Committee noted that the Committees' Guidelines currently in use are contained in MSC-MEPC.1/Circ.4/Rev.2.

19.2 With regard to the proposed changes to working practices affecting the Committees' Guidelines including revision to annotated agendas and summary reports, the Committee noted that C 109 (November 2012) took some decisions (see document MEPC 65/12/1, paragraphs 5.1 to 5.7). In this regard, the Committee, noting that C 110 (July 2013) will further consider relevant issues including the conduct and evaluation of a trial for a revised reporting format and procedures to take advantage of the use of enhanced audio-equipment (see document C 110/3/1), agreed to consider these issues at its future session.

20 ELECTION OF THE CHAIRMAN AND VICE-CHAIRMAN FOR 2014

20.1 The Committee, in accordance with rule 17 of its Rules and Procedure, unanimously elected Mr. Arsenio Dominguez (Panama) as Chairman and Dr. Naomi Parker (New Zealand) as Vice-Chairman, both for 2014.

21 ANY OTHER BUSINESS

21.1 The Committee noted that no documents had been submitted under this agenda item.

21.2 The Committee noted information provided by the delegation of Brazil concerning a voluntary compliance programme by Brazilian flagged ships in view of the entry into force on 1 January 2013 of amendments to MARPOL Annex VI (addition of chapter 4 for inclusion of regulations on energy efficiency for ships), which was disseminated under the symbol of MEPC.1/Circ.807. This voluntary compliance programme would be revoked should the amendments enter into force for Brazil.

Expression of appreciation

21.3 The Committee, in expressing its deepest appreciation for the outstanding contribution made by the Chairman, Mr. A. Chrysostomou (Cyprus), to the work of the Committee during his 10-year Chairmanship from 2003 to 2013, adopted resolution MEPC.241(65) on *Appreciation of the service to the Marine Environment Protection Committee by Mr. Andreas Chrysostomou*, as set out in annex 48.

ACTION REQUESTED OF OTHER IMO BODIES

21.4 The actions requested of other IMO bodies are summarized as follows (paragraph numbers are those of the report of MEPC 65).

21.5 The Maritime Safety Committee, at its ninety-second session, is invited to:

- .1 consider a threshold value for asbestos and advise MEPC 66 accordingly (paragraph 3.14.4);
- .2 note that MEPC 65 adopted, by resolution MEPC.235(65), the *Code for Recognized Organizations (RO Code)*, and by resolution MEPC.236(65), *Amendments to MARPOL Annexes I and II to make the RO Code mandatory*; and make sure that the text of the RO Code adopted by MEPC 65 and MSC 92 remains identical (paragraphs 6.17 to 6.20 and annexes 23 and 24);
- .3 note that MEPC 65 established a correspondence group on the use of electronic record books under MARPOL and modified 8.0.3.2 of its planned output to read "Electronic access to, or electronic versions of, certificates and documents including record books required to be carried on ships", for endorsement by C 110 (paragraphs 7.11 and 7.46);
- .4 note that MEPC 65 approved, subject to concurrent decision of MSC 92, the draft amendments to the IBC Code, for circulation, with a view to adoption at MEPC 66 (paragraph 11.5 and annex 29);
- .5 note that MEPC 65 approved, subject to concurrent decision of MSC 92, the draft MSC-MEPC circular on *Guidance on the timing of replacement of existing certificates by revised certificates as a consequence of the entry into force of amendments to chapters 17 and 18 of the IBC Code* (paragraph 11.13);
- .6 note that MEPC 65 approved the draft revised FAL.2-MEPC.1-MS.C.1 circular on List of certificates and documents required to be carried on board ships, subject to concurrent decision of MSC 92 (paragraph 11.23);

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- .7 note that MEPC 65 endorsed, subject to concurrent decision of MSC 92, the recommendation of FSI 21 that certificates carried on board have to be valid and drawn up in the form corresponding to the model where required by the relevant international convention and that a certificate may also be considered as "original" or "authentic" while containing an "authorized" electronically applied signature or stamp (paragraph 11.24);
- .8 note that MEPC 65 approved, subject to concurrent decision of MSC 92, the draft Assembly resolution on *Notification and circulation through the GISIS*, for consideration and adoption at A 28 (paragraph 11.25 and annex 32);
- .9 note that MEPC 65 approved, subject to concurrent decision of MSC 92, the draft Assembly resolution on *Guidelines to assist investigators in the implementation of the Casualty Investigation Code* (resolution MSC.255(84)), for consideration and adoption at A 28 (paragraph 11.29 and annex 33);
- .10 note that MEPC 65 approved, subject to concurrent decision of MSC 92, the draft MSC MEPC.3 circular on Revised harmonized reporting procedures – Reports required under SOLAS regulations I/21 and XI-1/6, and MARPOL articles 8 and 12 (paragraph 11.30);
- .11 note that MEPC 65 approved, subject to concurrent decision of MSC 92, the draft Assembly resolution on *Amendments to the Survey Guidelines under the Harmonized System of Survey and Certification (HSSC), 2011* (resolution A.1053(27)), for consideration and adoption at A 28 (paragraph 11.31 and annex 34);
- .12 note that MEPC 65 approved, subject to concurrent decision of MSC 92, the draft Assembly resolution on *2013 non-exhaustive list of obligations under instruments relevant to the IMO Instruments Implementation Code (III Code)*, for consideration and adoption at A 28 (paragraph 11.32 and annex 35);
- .13 note that MEPC 65 approved, subject to concurrent decision of MSC 92, the draft MSC MEPC.5 circular on the unified interpretation of the application of regulations governed by the building contract date, the keel laying date and the delivery date for the requirements of the SOLAS and MARPOL Conventions (paragraphs 11.33 and 11.34);
- .14 note that MEPC 65 instructed the DE Sub-Committee to finalize the work on the development of environmental provisions in the draft Polar Code at its next session, taking into decisions made and instructions given by MEPC 65 (paragraphs 11.41 to 11.64);
- .15 note that MEPC 65 approved, subject to concurrent decision of MSC 92, the holding of an intersessional meeting of the Polar Code Working Group in the autumn of 2013, for submission to C 110 for endorsement (paragraph 11.64);

- .16 note that MEPC 65 approved, subject to concurrent decision of MSC 92, the draft amendments to the BCH Code and the IBC Code on mandatory carriage requirements for stability instruments on board tankers, for circulation, with a view to adoption at MEPC 66 (paragraph 11.74 and annexes 38 and 39);
 - .17 note that MEPC 65 approved, subject to concurrent decision of MSC 92, the draft Assembly resolution on Use of national tonnage in applying international conventions, for consideration and adoption at A 28 (paragraph 11.76 and annex 40);
 - .18 note the concurrent approval of MSC-MEPC.2/12 on the *Revised Guidelines for Formal Safety Assessment (FSA) for use in the IMO rule-making process* (paragraph 12.7.1);
 - .19 note the concurrent approval of MSC-MEPC.2/13 on the *Guidelines for the application of Human Element Analysing Process (HEAP) to the IMO rule-making process* (paragraph 12.7.2);
 - .20 note that MEPC 65 approved, in principle, the Secretary-General's proposal for restructuring of the sub-committees, subject to concurrent decision of MSC 92, noting that detailed consideration will take place at that session (paragraphs 12.12 to 12.43);
 - .21 note that MEPC 65 approved, subject to concurrent decision of MSC 92, the items in the biennial and post-biennial agendas of the DE, DSC, FP, COMSAR, NAV, SLF and STW Sub-Committees for 2014-2015 biennium which relates to environmental issues, bearing in mind that these agendas may have to be adjusted in accordance with the decision of C 110 on the restructuring of sub-committees (paragraph 18.1 and annex 42);
 - .22 note that MEPC 65 approved, subject to concurrent decision of MSC 92, the revised biennial agenda of the BLG Sub-Committee for the biennium 2014-2015 and the provisional agenda for BLG 18, bearing in mind that these agendas may have to be adjusted in accordance with the decision of C 110 on the restructuring of sub-committees (paragraph 18.3 and annex 43);
 - .23 note that MEPC 65 approved, subject to concurrent decision of MSC 92, the revised biennial agenda of the FSI Sub-Committee for the biennium 2014-2015 and the provisional agenda for FSI 22, bearing in mind that these agendas may have to be adjusted in accordance with the decision of C 110 on the restructuring of the sub-committees (paragraph 18.5 and annex 44); and
 - .24 note that MEPC 65 approved, subject to concurrent decision of MSC 92, the holding of an intersessional meeting of the ESPH Working Group in 2014, for submission to C 110 for endorsement (paragraph 18.18.2).
- 21.6 The Facilitation Committee (FAL), at its thirty-ninth session, is invited to:
- .1 note that MEPC 65 established a correspondence group on the use of electronic record books under MARPOL and modified 8.0.3.2 of its planned output to read "Electronic access to, or electronic versions of,

certificates and documents including record books required to be carried on ships", for endorsement by C110 (paragraphs 7.11 and 7.46);

- .2 keep the MEPC updated on its work on the electronic access to certificates and documents, as well as ship/port interface (paragraph 7.12); and
- .3 note that MEPC 65 endorsed, subject to concurrent decision of MSC 92, the recommendation of FSI 21 that certificates carried on board have to be valid and drawn up in the form corresponding to the model where required by the relevant international convention and that a certificate may also be considered as "original" or "authentic" while containing an "authorized" electronically applied signature or stamp (paragraph 11.24).

21.7 The Sub-Committee on Bulk Liquids and Gases (BLG), at its eighteenth session, is instructed to:

- .1 note that MEPC 65 invited Member States, international or regional organizations, and industry programmes to promote and provide, directly or through IMO, support and technical assistance to secure the necessary funding for the development of the manual "Ballast Water Management – How to do it"; and invited the Technical Co-operation Committee to include in the Organization's Integrated Technical Co-operation Programme the provisions to contribute and support the production of such a manual (paragraph 2.40);
- .2 note that MEPC 65 approved BWM.2/Circ.42 on *Guidance on ballast water sampling and analysis for trial use in accordance with the BWM Convention and Guidelines (G2)* (paragraph 2.43.1);
- .3 note that MEPC 65 agreed in principle with the recommendations related to the trial period for reviewing, improving and standardizing the BWM Circular on *Guidance on ballast water sampling and analysis for trial use in accordance with the BWM Convention and Guidelines (G2)* (paragraph 2.43.2);
- .4 note that MEPC 65 adopted, by resolution MEPC.228(65), *Information reporting on type approved ballast water management systems* (paragraph 2.43.3 and annex 1);
- .5 note that MEPC 65 approved BWM.2/Circ.43 on amendments to the *Guidance for Administrations on the type approval process for ballast water management systems in accordance with Guidelines (G8)* (BWM.2/Circ.28) (paragraph 2.43.4);
- .6 note that MEPC 65 approved BWM.2/Circ.44 on options for ballast water management for Offshore Support Vessels in accordance with the BWM Convention (paragraph 2.43.5);
- .7 take into account document MEPC 65/2/17 (WWF) when developing future revisions of the BWM Circular on *Guidance on ballast water sampling and analysis for trial use in accordance with the BWM Convention and Guidelines (G2)* (paragraph 2.45);

- .8 consider the issue of using drinking water as ballast water, noting that MEPC 65 invited Member Government to submit their proposals and comments, together with relevant information to the Sub-Committee in accordance with the action planned agreed (paragraph 2.57.5);
- .9 consider document MEPC 65/4/22 (Norway) under agenda item "Consideration of the impact on the Arctic of emissions of black carbon from international shipping" (paragraph 4.23);
- .10 note that MEPC 65 agreed to retain the title for the work plan on consideration of the impact on the Arctic of emissions of black carbon from international shipping (paragraph 4.25);
- .11 note that MEPC 65 agreed that sulphur emission-averaging schemes should not be accepted under regulation 4 of MARPOL Annex VI (paragraph 4.37);
- .12 note that MEPC 65 approved the draft amendments to NO_x Technical Code 2008 on certifying dual-fuel engines, with a view to adoption at MEPC 66 (paragraph 4.40 and annex 7);
- .13 note that MEPC 65 adopted, by resolution MEPC.230(65), the *2013 Guidelines as required by regulation 13.2.2 of MARPOL Annex VI in respect of non-identical replacement engines not required to meet the Tier III limit* (paragraph 4.43 and annex 8);
- .14 note that MEPC 65 approved MEPC.1/Circ.812 on unified interpretation relating to "time of the replacement or addition" of an engine for the applicable NO_x Tier standard for the Supplement to the IAPP Certificate, as referred to in regulation 13.2.2 of MARPOL Annex VI (paragraph 4.46);
- .15 note that MEPC 65 approved MEPC.1/Circ.813 on unified interpretation on "identical" replacement engines under regulation 13 of MARPOL Annex VI (paragraph 4.50);
- .16 consider document MEPC 65/7/5 (Marshall Islands) relating to the disposal of cooking oils under the agenda item "Any other business", for one session and advise MEPC 66 accordingly (paragraph 7.26);
- .17 note that MEPC 65 endorsed the decisions taken by BLG 17 regarding the outcome of ESPH 18, subject to concurrent decision of MSC 92 (paragraph 11.4);
- .18 note that MEPC 65 approved, subject to concurrent decision of MSC 92, the draft amendments to the IBC Code, for circulation, with a view to adoption at MEPC 66 (paragraph 11.5 and annex 29);
- .19 note that MEPC 65 endorsed BLG 17's evaluation of two new substances and their consequential inclusion in the IBC Code (paragraph 11.6);
- .20 note that MEPC 65 endorsed BLG 17's evaluation of cargo tank cleaning additives found to meet the requirements of regulation 13.5.2 of MARPOL Annex II, for inclusion in the next edition of the MEPC.2/Circular (paragraph 11.7);

- .21 note that MEPC 65 endorsed BLG 17's evaluation of three trade-named mixture products for inclusion in List 3 of the MEPC.2/Circular, with validity for all countries and no expiry date (paragraph 11.8);
- .22 note that MEPC 65 approved, subject to concurrent decision of MSC 92, the draft MSC-MEPC circular on *Guidance on the timing of replacement of existing certificates by revised certificates as a consequence of the entry into force of amendments to chapters 17 and 18 of the IBC Code* (paragraph 11.13);
- .23 note that MEPC 65 approved MEPC.1/Circ.811 on *Guidance for evaluating the 2011 Guidelines for the control and management of ships' biofouling to minimize the transfer of invasive aquatic species* (paragraph 11.14);
- .24 note that MEPC 65 approved, subject to concurrent decision of MSC 92, the revised biennial agenda of the BLG Sub-Committee for the biennium 2014-2015 and the provisional agenda for BLG 18, bearing in mind that these agendas may have to be adjusted in accordance with the decision of C 110 on the restructuring of sub-committees (paragraph 18.3 and annex 43); and
- .25 note that MEPC 65 agreed to hold the intersessional meeting of the ESPH Working Group in October 2014, subject to approval by the Council (paragraph 18.17).

21.8 The Sub-Committee on Flag State Implementation (FSI), at its twenty-second session, is instructed to:

- .1 take into account MEPC 65/2/17 (WWF) in the development of the *Guidelines for port State control under the BWM Convention* (paragraph 2.45);
- .2 note that MEPC 65 approved the amended terms of reference for the correspondence group established at FSI 21 to develop the *Guidelines for port State control under the BWM Convention* (paragraph 2.57.6);
- .3 note that MEPC 65 adopted, by resolution MEPC.235(65), the *Code for Recognized Organizations (RO Code)*, and by resolution MEPC.236(65), *Amendments to MARPOL Annexes I and II to make the RO Code mandatory* (paragraph 6.17 to 6.20 and annexes 23 and 24);
- .4 note that MEPC 65 approved the draft revised FAL.2-MEPC.1-MS.C.1 circular on List of certificates and documents required to be carried on board ships, subject to concurrent decision of MSC 92 (paragraph 11.23);
- .5 note that MEPC 65 endorsed, subject to concurrent decision of MSC 92, the recommendation of FSI 21 that certificates carried on board have to be valid and drawn up in the form corresponding to the model where required by the relevant international convention and that a certificate may also be considered as "original" or "authentic" while containing an "authorized" electronically applied signature or stamp (paragraph 11.24);
- .6 note that MEPC 65 approved, subject to concurrent decision of MSC 92, the draft Assembly resolution on *Notification and circulation through the GISIS*, for consideration and adoption at A 28 (paragraph 11.25 and annex 32);

- .7 note that MEPC 65 approved MEPC/Circ.470/Rev.1 on Waste reception facility reporting requirements; MEPC.1/Circ.469/Rev.2 on Revised consolidated format for reporting alleged inadequacies of port reception facilities; MEPC.1/Circ.644/Rev.1 on Standard format for the advance notification form for waste delivery to port reception facilities; MEPC.1/Circ.645/Rev.1 on Standard format for the waste delivery receipt; and MEPC.1/Circ.671/Rev.1 on Guide to good practice for port reception facility providers and users (paragraph 11.27);
- .8 note that MEPC 65 approved, subject to concurrent decision of MSC 92, the draft Assembly resolution on *Guidelines to assist investigators in the implementation of the Casualty Investigation Code* (resolution MSC.255(84)), for consideration and adoption at A 28 (paragraph 11.29 and annex 33);
- .9 note that MEPC 65 approved, subject to concurrent decision of MSC 92, the draft MSC/MEPC.3 circular on Revised harmonized reporting procedures – Reports required under SOLAS regulations I/21 and XI-1/6, and MARPOL articles 8 and 12 (paragraph 11.30);
- .10 note that MEPC 65 approved, subject to concurrent decision of MSC 92, the draft Assembly resolution on *Amendments to the Survey Guidelines under the Harmonized System of Survey and Certification (HSSC)*, 2011 (resolution A.1053(27)), for consideration and adoption at A 28 (paragraph 11.31 and annex 34);
- .11 note that MEPC 65 approved, subject to concurrent decision of MSC 92, the draft Assembly resolution on *2013 non-exhaustive list of obligations under instruments relevant to the IMO Instruments Implementation Code (III Code)*, for consideration and adoption at A 28 (paragraph 11.32 and annex 35);
- .12 note that MEPC 65 approved, subject to concurrent decision of MSC 92, the draft MSC MEPC.5 circular on the unified interpretation of the application of regulations governed by the building contract date, the keel laying date and the delivery date for the requirements of the SOLAS and MARPOL Conventions (paragraphs 11.33 and 11.34);
- .13 consider the inclusion in the future revision of the HSSC Guidelines guidance on mandatory carriage requirements for stability instruments on board tankers, once the associated amendments to MARPOL Annex I, the BCH Code and the IBC Code have entered into force (paragraph 11.74); and
- .14 note that MEPC 65 approved, subject to concurrent decision of MSC 92, the revised biennial agenda of the FSI Sub-Committee for the biennium 2014-2015 and the provisional agenda for FSI 22, bearing in mind that these agendas may have to be adjusted in accordance with the decision of C 110 on the restructuring of the sub-committees (paragraph 18.5 and annex 44).

21.9 The Sub-Committee on Ship Design and Equipment (DE), at its fifty-eighth session, is instructed to:

- .1 in developing the draft Polar Code, await the outcome of the BLG Sub-Committee's work on the impact on the Arctic of emissions of Black Carbon from international shipping (paragraph 4.28);
- .2 note that MEPC 65 agreed to exempt cargo ships having ice-breaking capability from the EEDI requirements and approved a draft amendment to MARPOL Annex VI with a view to adoption at MEPC 66 (paragraph 4.81);
- .3 note that MEPC 65 adopted, by resolution MEPC.239(65), the *2013 Amendments to the Revised Guidelines and Specifications for Oil Discharge Monitoring and Control Systems for Oil Tankers* (resolution MEPC.108(49)) (paragraph 11.9 and annex 28);
- .4 finalize the work on draft amendments to regulation 12 of MARPOL Annex I, noting that MEPC 65 approved MEPC.1/Circ.753/Rev.1 on revised Unified Interpretation to regulation 12.2 of MARPOL Annex I (paragraphs 11.38 and 11.39);
- .5 finalize the work on the development of environmental provisions in the draft Polar Code, in accordance with the decisions made and instructions given by MEPC 65 (paragraphs 11.41 to 11.64);
- .6 note that MEPC 65 approved, subject to concurrent decision of MSC 92, the holding of an intersessional meeting of the Polar Code Working Group in the autumn of 2013, for submission to C 110 for endorsement (paragraph 11.64); and
- .7 note that MEPC 65 approved, subject to concurrent decision of MSC 92, the items in the biennial and post-biennial agendas of the DE, DSC, FP, COMSAR, NAV, SLF and STW Sub-Committees for 2014-2015 biennium which relates to environmental issues, bearing in mind that these agendas may have to be adjusted in accordance with the decision of C 110 on the restructuring of sub-committees (paragraph 18.1 and annex 42).

21.10 The Sub-Committee on Stability and Load Lines and on Fishing Vessel Safety (SLF), at its fifty-sixth session, is instructed to:

- .1 note that MEPC 65 approved the draft amendments to MARPOL Annex I on mandatory carriage requirements for stability instruments on board tankers, for circulation, with a view to adoption at MEPC 66 (paragraph 11.73 and annex 37);
- .2 note that MEPC 65 approved, subject to concurrent decision of MSC 92, the draft amendments to the BCH Code and the IBC Code on mandatory carriage requirements for stability instruments on board tankers, for circulation, with a view to adoption at MEPC 66 (paragraph 11.74 and annex 38);
- .3 note that MEPC 65 instruct the FSI Sub-Committee to consider the inclusion in the future revision of the HSSC Guidelines guidance on mandatory carriage requirements for stability instruments on board tankers,

once the associated amendments to MARPOL Annex I, the BCH Code and the IBC Code have entered into force (paragraph 11.75); and

- .4 note that MEPC 65 approved, subject to concurrent decision of MSC 92, the draft Assembly resolution on *Use of national tonnage in applying international conventions*, for consideration and adoption at A 28 (paragraph 11.76 and annex 40).

21.11 The Sub-Committee on Dangerous Goods, Solid Cargoes and Containers (DSC), at its eighteenth session, is instructed to:

- .1 compile a list of solid bulk cargoes classified as harmful to the marine environment (HME), with a view to addressing the difficulties experienced by shipowners and operators in obtaining HME declarations (paragraph 11.68).

21.12 The Sub-Committee on Fire Protection (FP), at its fifty-seventh session, is instructed to:

- .1 note that MEPC 65 endorsed the view of FP 56 that the survey and certification of fire protection of incinerator spaces and waste stowage spaces should fall under the scope of the SOLAS Convention (paragraph 11.71).

ANNEX 1

RESOLUTION MEPC.228(65)

Adopted on 17 May 2013

**INFORMATION REPORTING ON
TYPE APPROVED BALLAST WATER MANAGEMENT SYSTEMS**

THE MARINE ENVIRONMENT PROTECTION COMMITTEE,

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

RECALLING ALSO that the International Conference on Ballast Water Management for Ships held in February 2004 adopted the International Convention for the Control and Management of Ships' Ballast Water and Sediments, 2004 (the Ballast Water Management Convention) together with four Conference resolutions,

RECALLING FURTHER that, on entry into force, the Ballast Water Management Convention will require ships to install ballast water management systems, which meet the D-2 standard stipulated therein,

RECOGNIZING that the collection and dissemination of accurate information on type-approved ballast water management systems (BWMS) will be beneficial for all interested stakeholders,

NOTING resolution MEPC.175(58) by which the Committee adopted the Information reporting on type-approved ballast water management systems,

HAVING CONSIDERED the recommendation made by the Sub-Committee on Bulk Liquids and Gases at its seventeenth session, on the need to revise resolution MEPC.175(58),

1. INVITES Member States, when approving a ballast water management system in accordance with the Guidelines for approval of ballast water management systems (G8), to report the following information to the Organization:

- .1 approval date;
- .2 name of the Administration;
- .3 name of the BWMS;
- .4 a copy of the Type Approval Certificate and any appendices which includes details on all imposed limiting conditions on the operation of the BWMS in accordance with paragraph 6.1 of the Guidelines for approval of ballast water management systems (G8) (resolution MEPC.174(58)) as follows: Such limiting conditions to include any applicable environmental conditions (e.g. salinity, UV transmittance, temperature, etc.) and/or system operational parameters (e.g. min/max pressure, pressure differentials, min/max Total Residual Oxidants (TRO), etc.);

- .5 an annex to the Type Approval Certificate which contains the test results of each land-based and shipboard test run. Such test results shall include at least the numerical salinity, temperature, flow rates, and where appropriate UV transmittance. In addition, these test results shall include all other relevant variables;
 - .6 the protocol according to which testing was undertaken, including details on:
 - .1 whether ambient, cultured or a mixture of test organisms have been used (including a species-level identification for cultured organisms, and an identification to the lowest possible taxonomic level for ambient organisms);
 - .2 the shipboard test protocol including the operating parameters of the system during successful treatment operations, for example dosage rates, UV intensity and electrical current applied;
 - .3 energy consumption of the BWMS under normal or tested Treatment Rated Capacity (TRC), if available;
 - .4 the full test report of the land-based test including all unsuccessful, failed and invalid tests;
 - .5 the full test report of the shipboard test including all unsuccessful, failed and invalid tests, and detailed information of the test set up and actual flow rate at each test cycle;
 - .6 QA/QC documentation of the testing facility or body; and
 - .7 national accreditation of the test facility, if appropriate;
 - .7 a description of the Active Substance(s), if employed; and
 - .8 identification of the specific MEPC report and paragraph number granting Final Approval in accordance with the Procedure for approval of ballast water management systems that make use of Active Substances (G9), adopted by resolution MEPC.169(57);
2. INSTRUCTS the Secretariat to make such information available by an appropriate means;
 3. REVOKES resolution MEPC.175(58).

ANNEX 2

STATEMENTS BY THE DELEGATIONS OF CANADA, DENMARK AND GERMANY AND THE OBSERVER FROM CESA ON THE DRAFT ASSEMBLY RESOLUTION ON APPLICATION OF THE INTERNATIONAL CONVENTION FOR THE CONTROL AND MANAGEMENT OF SHIPS' BALLAST WATER AND SEDIMENTS, 2004

Statement by the delegation of Canada

In considering the concerns noted in action point 36.2 of the MEPC 65/WP.7, I hope delegations will take note of Canada's compromise proposal in document J/9.

As was indicated by the delegation of France on Monday, this is a challenging matter, and there is no solution that will please everyone. The challenge before us is to find a compromise that will allow us to move forward together. A consensus of Contracting States is needed at the assembly in order to enable the adoption of this resolution.

The Review Group has built on the work of the Correspondence Group to draft a resolution. It does not amend the convention, but rather recommends an agreement amongst parties to the convention for an enforcement schedule for Regulation B-3. Such an agreement would effectively determine dates of compliance with the ballast water performance standard in regulation D-2.

Having drafted a resolution, it was noted in the Review Group that, as the new enforcement schedule refers to a renewal survey that is not harmonized with other statutory instruments, the demand for ballast water management systems could suddenly peak five years after entry into force of the Convention. This is counter to the objective of the assembly resolution.

Mr. Chairman, the Review Group considered this matter, but did not have the terms of reference to propose a solution. Additional discussion was necessary between delegations, and Canada had the honour to convene a well-attended meeting for friends of the assembly resolution immediately following the conclusion of the ballast water review group. At this meeting Canada proposed a solution in the spirit of compromise to enable the resolution to be adopted. I am pleased to report that no objection to the proposal was voiced at this meeting; in fact, a number of delegations expressed their support for it.

The Canadian proposal is outlined in paper J/9. Under this approach, the date for enforcing the ballast water performance standard in Regulation D-2, would be based on the renewal survey associated with the International Oil Pollution Prevention Certificate under MARPOL Annex I.

Because the dates for renewal of this certificate are already distributed in time, referring to it in a ballast water enforcement schedule would effectively distribute the dates of compliance with regulation D-2 more evenly over the period called for in the draft resolution as it stands.

I want to emphasize that the proposal is not to formally link the ballast water and MARPOL Convention. Rather, the International Oil Pollution Prevention Certificate is suggested as a clear and practical basis to establish a date for enforcement of the convention.

This particular certificate is linked to an environmental instrument of IMO, and is a good basis for enforcement, as 99.2% of states are Parties to MARPOL Annex I, including all Contracting States to the BWM Convention.

Mr. Chairman, Council, at its 109th session, called for pragmatic solutions to impediments to the early entry into force and implementation of the BWM Convention. On Monday, the Secretary General strongly suggested that "now is the time to move towards implementation" and urged this Committee to approve a draft resolution at this session for adoption by the Assembly in November. And Mr. Chairman, I am very hopeful that we will have the opportunity to make you happy for a second time today.

Mr. Chairman, the world is watching us and hanging on our decision on this matter. Canada believes a compromise is needed now, today, to provide a basis for consensus at the Assembly. This is a critical moment in the evolution of the ballast water management convention, and a unique opportunity for this committee to express its intention to expedite its entry into force in coming years.

Therefore, Mr. Chairman, it is in a spirit of compromise that Canada invites the Committee to consider the proposal in our J paper, with the hope that it will receive the necessary consensus to allow the assembly resolution to move forward.

Thank you Mr. Chairman.

Statement by the delegation of Denmark

Denmark recognizes the need to reconsider the application schedule of regulation B-3 of the BWM Convention since the application dates have passed.

Denmark acknowledges that the majority of States supported this decision, and that the conclusion was to draft, an Assembly resolution based on option B in conjunction with A-1 (in accordance with MEPC 65/2/11).

Denmark will not object to the majority decision, but stress that we have serious concerns regarding the consequences of this decision.

Firstly, the introduction of invasive species through ballast water is a major problem for the marine environment. The draft Assembly resolution will postpone the application of the BWM Convention and thereby delay the solving of this serious problem.

Secondly, the draft Assembly resolution will put those ships that have already installed treatment systems or are preparing to in an unfair position compared to those who have not yet done so.

Thirdly, the postponement will increase the insecurity in the market for BWM systems.

Fourthly, the change of the time schedule could have negative effect for those States that already have or are in the process of acceding to the Convention, since they might have to review the legal implications of the Assembly Resolution and possibly make changes to their national legislation or accession instruments.

Fifthly, the postponement of application for all ships constructed before the entry into force of the Convention will still be likely to create a peak demand for retro-fitting.

Lastly, this extensive draft Assembly resolution may not eliminate the obstacles that has so far kept States from ratifying the Convention and may not give the clarity needed for States to ratify.

Statement by the delegation of Germany

Germany wishes to thank the Review Group for its hard work and in particular the Chairman for his untiring dedication.

Germany is pleased to be able to inform the Committee that it intends to deposit its instrument of accession to the Ballast Water Management Convention on June 20th this year.

Unfortunately, the Draft Assembly Resolution as agreed by the Review Group represents a significant shift in one of the key elements of the Convention: the timetable of its application.

This necessitates a thorough review of the legal implications of the Draft Assembly resolution on the impending German accession. Germany intends to complete this review by the time of the Assembly meeting.

To be clear: Germany has no objections against this Draft resolution being forwarded to the Assembly at this point. It merely wishes to note that it has not finalized its position on the document but intends do so by the meeting of the Assembly later this year.

Statement by the observer from CESA

CESA expresses concern on effects of the proposed amendment which instead of easing the entry into force of the convention with a smooth phase-in will end-up in creating an unmanageable peak in retro-fitting of BW systems obtaining the opposite result and both penalizing those who have invested in the expectation that the convention would be effective, as well as creating obstacles for the Flag States who has still have to ratify the convention.

ANNEX 3

DRAFT ASSEMBLY RESOLUTION

APPLICATION OF THE INTERNATIONAL CONVENTION FOR THE CONTROL AND MANAGEMENT OF SHIPS' BALLAST WATER AND SEDIMENTS, 2004

THE ASSEMBLY,

RECALLING Article 15(j) of the Convention of the International Maritime Organization concerning the functions of the Assembly in relation to regulations and guidelines concerning maritime safety and the prevention and control of marine pollution from ships,

RECALLING ALSO the adoption by the International Conference on Ballast Water Management for Ships, held at the Organization's Headquarters in 2004, of the *International Convention for the Control and Management of Ships' Ballast Water and Sediments* (hereinafter referred to as "the Convention"),

RECALLING resolution A.1005(25), and expressing its renewed desire to ensure that the Convention enters into force without further delay so as to provide for accrual of benefits as soon as possible to the aquatic environment from its early, wide and effective implementation,

CONSCIOUS of the need to provide certainty and confidence in the application of the Convention, thereby assisting shipping companies, shipowners, managers and operators, as well as the shipbuilding and equipment manufacturing industries, in the timely planning of their operations and the need to encourage the early installation of ballast water management systems,

RECALLING that the International Conference on Ballast Water Management for Ships adopted regulation B-3 to ensure a smooth transition to the D-2 performance standard of the Convention between the years 2009 and 2019,

RECOGNIZING that the passage of time since adoption of the Convention has resulted in uncertainty for vessels regarding the application of regulation B-3, and that such uncertainty can be mitigated through the application of an appropriate timeline for enforcement of regulation D-1 (ballast water exchange standard) and regulation D-2 (ballast water performance standard), upon entry into force of the Convention,

1. CALLS ON States that have not already done so to ratify, accept, approve or accede to the Convention as soon as possible;

2. RECOMMENDS that, notwithstanding the schedule set forth in regulation B-3, upon entry into force of the Convention, each Party enforce the standards in regulations D-1 and D-2 in accordance with the following schedule:

- .1 a ship subject to regulation B-3.3 or B-3.5, constructed before the entry into force of the Convention, will not be required to comply with regulation D-2 until its first renewal survey following the date of entry into force of the Convention;

- .2 a ship subject to regulation B-3.1.1, B-3.1.2 or B-3.4 will not be required to comply with regulation D-2 until its first renewal survey following the anniversary date of delivery of the ship in the year of compliance with the standard applicable to the ship;
 - .3 notwithstanding paragraph 2.2, where the Convention enters into force after the year 2014, a ship subject to regulation B-3.1.1 will not be required to comply with regulation D-2 until its first renewal survey following the date of entry into force of the Convention;
 - .4 notwithstanding paragraph 2.2, where the Convention enters into force after the year 2016, a ship subject to regulation B-3.1.2 or B-3.4 will not be required to comply with regulation D-2 until its first renewal survey following the date of entry into force of the Convention;
 - .5 a ship referred to in paragraphs 2.1 to 2.4 will be required to comply with either regulation D-1 or D-2 until such time as regulation D-2 is enforced; and
 - .6 the renewal survey referred to in paragraphs 2.1 to 2.4 is the renewal survey associated with the International Oil Pollution Prevention Certificate under MARPOL Annex I;
3. REQUESTS that the Marine Environment Protection Committee keep this resolution under review and report back to the Assembly as appropriate;
 4. RECOMMENDS that, as soon as possible after entry into force of the Convention, regulation B-3 be amended consistent with the understanding reflected in paragraph 2 of this resolution, with the date of acceptance of the amendment to occur as soon as practicable after its adoption; and
 5. REVOKES resolution A.1005(25).

ANNEX 4

RESOLUTION MEPC.229(65)

Adopted on 17 May 2013

**PROMOTION OF TECHNICAL CO-OPERATION AND TRANSFER OF TECHNOLOGY
RELATING TO THE IMPROVEMENT OF ENERGY EFFICIENCY OF SHIPS**

THE MARINE ENVIRONMENT PROTECTION COMMITTEE,

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

HAVING ADOPTED, by resolution MEPC.203(62), the amendments to MARPOL Annex VI for inclusion of regulations on energy efficiency for ships,

BEING COGNIZANT of the principles enshrined in the Convention on the Organization, including the principle of non-discrimination, as well as the principle of no more favourable treatment enshrined in MARPOL and other IMO Conventions,

BEING COGNIZANT ALSO of the principles enshrined in the UNFCCC and its Kyoto Protocol including the principle of common but differentiated responsibilities and respective capabilities,

BEING AWARE that Parties to MARPOL Annex VI are expected to give full and complete effect to chapter 4 of MARPOL Annex VI,

1 REQUESTS the Organization, through its various programmes, to provide technical assistance to Member States to enable cooperation in the transfer of energy efficient technologies to developing countries in particular; and further assist in the sourcing of funding for capacity-building and support to States, in particular developing States, which have requested technology transfer;

2 INVITES international and regional organizations, non-governmental organizations and the industry to contribute in any manner possible and as appropriate to enhancing the effective implementation of chapter 4 of MARPOL Annex VI;

3 DECIDES to establish, with full stakeholder participation, an Ad hoc Expert Working Group on facilitation of Transfer of Technology for ships (AHEWG-TT) with a mandate to:

- .1 assess the potential implications and impacts of the implementation of the regulations in chapter 4 of MARPOL Annex VI, in particular, on developing States, as a means to identify their technology transfer and financial needs, if any;

- .2 identify and create an inventory of energy efficiency technologies for ships; identify barriers to transfer of technology, in particular to developing States, including associated costs, and possible sources of funding and make recommendations, including the development of a model agreement enabling the transfer of financial and technological resources and capacity-building between Parties, for the implementation of the regulations in chapter 4 of MARPOL Annex VI; and
 - .3 report to MEPC;
- 4 RECOGNIZES that the transfer of technology needs to respect property rights, including intellectual property rights, and to be on mutually agreed terms and conditions;
- 5 REQUESTS Member States, in cooperation with the Organization and other international bodies, other interested countries and industry programmes, to promote the provision directly, or through the Organization, of support to States, in particular to developing States, that need and request technical assistance for the assessment of the implications of becoming a Party to the regulations in chapter 4 of MARPOL Annex VI;
- 6 URGES also Member States with an ability to do so, and subject to their respective national laws, regulations and policies, to promote the provision directly, or through the Organization, of support especially to developing States and including, but not limited with regard to:
 - .1 transfer of energy efficiency technologies for ships;
 - .2 research and development for the improvement of energy efficiency of ships;
 - .3 training of personnel, for the effective implementation and enforcement of the regulations in chapter 4 of MARPOL Annex VI; and
 - .4 the exchange of information and technical co-operation relating to the improvement of energy efficiency for ships;
- 7 INVITES the Secretary-General of the Organization to make adequate provisions in its integrated Technical Co-operation Programme (ITCP) related to the effective implementation and enforcement of the requirements of chapter 4 of MARPOL Annex VI by developing countries, particularly the Least Developed Countries (LDCs) and Small Islands Developing States (SIDS); and
- 8 AGREES to keep under review the implementation of measures for the promotion of technical cooperation related to the energy efficiency of ships, as set out in this resolution.

ANNEX 5

**STATEMENTS BY THE CHAIRMAN OF THE COMMITTEE AND DELEGATIONS
OF ARGENTINA, AUSTRALIA, BRAZIL, CANADA, CHILE, CHINA,
DENMARK, JAPAN, INDIA, THE NETHERLANDS, NIGERIA,
NORWAY, PERU, SAUDI ARABIA, THE UNITED KINGDOM,
THE UNITED STATES AND VENEZUELA
ON
RESOLUTION MEPC.229(65) ON PROMOTION OF TECHNICAL CO-OPERATION
AND TRANSFER OF TECHNOLOGY RELATING TO THE
IMPROVEMENT OF ENERGY EFFICIENCY OF SHIPS**

Statement by the Chairman of the Committee

You remember yesterday when WP.12 was actually circulated, I said that the Chairman was not happy about the outcome of the working Group and what is reflected in the WP.12. I also said that although I was planning to bring to you a way forward, which would have been very painful everybody, I would have changed my mind of being heartless as always and become slightly nicer, if someone informed me that something that was going on to find a solution.

It looks like it was my lucky day because instead of one I got 12 delegations approaching me, which actually they did not say they had anything from their magic card, but they asked me if I could act as I did in the past and try to be an envoy or a facilitator in order to help and find the solution.

And you take for granted that's why you elected a chairman to work with you and to find the solutions with you in an amicable way without too many problems or least a solution that we can all live with it the one way or the other.

First of all allow me to congratulate the Chairman of the WG and its participation for the excellent work they did, and of course for having such and efficient working paper report which is only one paragraph. And I congratulate the drafters of that paragraph. But when I got the request, I went back to the Chairman and I asked "did you do anything on the process?" he replied "we agreed everything", so where is the problem? I asked, the reply was that the problem lies with some issues relating to the principles of several things such as IMO Convention principles, the no more favourable treatment, the UNFCCC and its Kyoto Protocol and so on.

I convened a meeting at 4 o'clock; I gave some options; I got a little input because I didn't have too much time and gathering the information I had from the Chair and that little information I got from that little group at 4 o'clock, I came to the conclusion that as far as what we have to do with the technical co-operation, technology transfer is there. It was agreed, The problem was just a place holder for something missing. So I thought that it would be very unfair to everybody to drop their work and start from scratch, so I told them that I will use the paragraphs you have, and I will only concentrate to find a solution on the placeholder, which today, you have in front of you as bold black letters in this J/10 and its 2 paragraphs which both of them begin with the expression "Being Cognizant".

We started with a white sheet of paper, we spell out the principles, all of the principles we wanted to discuss and then we tried to connect them together. And then all of us in a very swift way we said, its brilliant up to now, but let's make it 2 paragraphs., so we can see actually what we are saying. That's why you have got 2 instead of one and we connected them all together and we were very quick actually to find out that "being cognizant" and "cognizant also" could work as the operative word for those 2 paragraphs. That happened at 7 o'clock.

We did not reach a conclusion until quarter to eleven, although the principles were connected together, in one way or the other. We have connected them grammatically correct in my opinion. But unfortunately, not the whole group could feel comfortable with the word "of". So we had one word of 2 letters and we were going around in different ways to express ourselves, we have red line on the one, green line on the other, you know this process. Eventually, we reached 10.15, where honestly, I have to say, I reached the point that I usually don't reach, but I was exhausted as I didn't have lunch and dinner.

But one delegation, I don't like to name delegations at this stage, mentioned something that on the 1st round, of replies it sounded as the solution; that could solve our problems and that was the word "enshrined". For some of you it might be a little bit difficult to read or say the word enshrined, but it is a word that has its own connotations, but it actually captured the essence that these principles are within somewhere. When I saw that the 1st thing I said, what we try to do here is to actually state the status quo and the obvious, what is actually happening, whether it is in the IMO, whether it is in the framework convention on climate change, so let's be factual and everybody agreed on that. But then again we started going in circles, so when I reached the stage when I couldn't go any further, I said to the group "this time you are not the friends of Chairman that I consult with you and then I put something in front of the Committee. This time you asked me to come and help you. So the point we reached now, you have to allow me to go to the Committee with something that I think will work because, it does, it tells you the truth, it does tell you what is written/spelt out in this Convention. It's a boxing kind of connection between the principles. We know which principle is where, and everybody can understand their own thing. And then I got silence.

When I got silence, you know me, I do use silence very much, because the sign of silence means we might not like it, but we might let you go. So I picked it up, I went to Stefan's office and with Fredrik of course, we drafted it. I wanted to find Mr. Zhu, but it was too late in the night, but I found him this morning. And I do believe that I have in front of you now, something which on this specific agenda item, can be accepted with silence. I do believe that we have been working on it for so long. I am not going to call it my plea, it's my terrible plea you accept it, and adopt it with acclamation. What I mean by acclamation is we agree on it with silence, I will clap. It is my last session I can do whatever I want.

And that ends my presentation of the document, and of course the floor is yours. But the sound of silence would have been my preferred option.

Statement by the delegations of Australia, Japan and the United States

Thank you, Chair. I have the honour of making this statement on behalf of Australia, Japan and the United States. We would like to thank you and your vice chair for all your hard work to reach agreement. We believe it should be worth your effort, as it will allow us to move forward constructively on the important substantive work we have before us.

We support the actions called for in this resolution. We will implement our commitments under regulation 23. We have always been committed to providing capacity-building and technical assistance to enhance energy efficiency of ships, and we will actively engage in the Ad Hoc Expert Working Group on Transfer of Technology for ships to assess and raise awareness of available energy efficiency technologies.

We move forward on the basis of the Chair's understanding that the fourth preambular paragraph expresses awareness that the UN Framework Convention on Climate Change contains principles relevant to that Convention. Of course, in the IMO and under MARPOL, the principles of non-discrimination and no-more-favourable-treatment apply.

In addition- and on this point I speak only on behalf of the United States- as a country that is implementing its commitments under the UNFCCC but is not a Party to the Kyoto Protocol, the United States would not associate with the reference to the Kyoto Protocol in this paragraph. In our view, the reference does not make factual sense, because the Kyoto Protocol does not actually contain principles. We interpret the reference to mean the principles of the UNFCCC, under which the Kyoto Protocol falls.

In closing, we all look forward to working constructively with all countries to enhance their effective implementation of the regulations we adopted at MEPC 62, and in the new working group on energy efficiency at MEPC 66.

Statement by the delegation of Brazil

Thank you, Mr Chairman,

We would like, firstly, to show our great appreciation to you Chair and your Vice-Chair, for your outstanding abilities in bringing Parties together.

We would also like to thank other Parties for the constructive spirit they have conducted the matter.

Brazil welcomes the adoption of the resolution on technical cooperation and transfer of technology by the Committee.

The express cognizance of the principles and provisions of the UNFCCC and its Kyoto Protocol, in particular the principle of common but differentiated responsibilities, is an important step for ensuring consistency of climate change actions under IMO, in relation to the international climate change regime.

It provides, further, a clear signal that this Organization renders its full support to the international response to climate change and to the UNFCCC process, which is particularly relevant to the Durban Platform on Enhanced Action, to conclude the 2015 agreement under that Convention, applicable to all Parties.

Mr Chairman,

We now enter a phase for the implementation of the technical and operational measures we have already adopted. We must focus on this challenge. We urge developed countries to provide the necessary financial, technological and capacity-building support for developing countries, in relation to energy efficiency standards.

We align ourselves to the statement presented by China.

Thank you.

Statement by the delegation of Canada

Like others, Canada would like to express appreciation for the hard work of all the delegations on this resolution, and especially the work by the Vice Chair.

As others have stated, Canada takes the operative substance of this resolution seriously. Even before today and before the adoption of this resolution, Canada has been working with Finland and other countries and the IMO Secretariat on moving forward with capacity-building activities, building on the excellent work of KOICA and the IMO Secretariat. And we will continue to do so. We welcome the participation of any other States in this initiative.

We also wish to associate ourselves with the statement of the United States.

Statement by the delegation of Chile

Our delegation congratulates the Chairman and Vice-Chairman on their work in guiding our efforts to achieve a consensus and the resolution now before us.

We feel sure that this resolution opens a new chapter in the history of the Organization. Our delegation is very satisfied with the content of the document under review, which reflects the spirit of cooperation that must prevail in this Organization.

Statement by the delegation of China

This delegation would like to express our appreciation to the two chairmen on their great effort in promoting the finalization of this MEPC resolution. We would also like to thank all the delegations for their spirit of consensus on negotiation and their huge compromise and flexibility in the consultation. To be honest, many delegations, including China, are not completely satisfied with this resolution, because concession has been made by all delegations. This delegation is particularly concerned about the provisions on Intellectual Property Rights (IPR) contained in this resolution because protection of IPR has always been the formidable obstacle which seriously impairs the transfer of technology. This delegation sincerely hopes that all member states, in the spirit of continuous co-operation, can faithfully fulfil the obligations of technology transfer in accordance with this resolution so that this resolution, adopted after two-year consideration, will not become a mere sheet of paper. This resolution, for the first time introducing the principle of common but differentiated responsibilities (CBDR) into IMO, provides a sound foundation and guidance for further discussion on GHG emission under IMO. This delegation would like to actively participate in related discussion under the guidance of this principle.

Lastly, Mr. Chairman, this delegation would like to express our appreciation to delegations of the United States and Denmark, as well as other member states with the same position, for their co-operative spirit and flexible attitude for the consensus. We hope that the spirit of mutual compromise and close co-operation would be kept in further discussions on GHG emission under IMO in future.

Thank you, Sir!

Statement by the delegations of Denmark, the Netherlands and the United Kingdom

Denmark, Netherlands and the United Kingdom are appreciative of the efforts which have been taken, both by you Mr. Chairman, the new chairman of the Committee and Member States to reach a result which has finalized the resolution on Technical Co-operation.

We support the resolution in general and welcomes its operative paragraphs on technical cooperation, intended to give support to IMO Member States that request assistance in the implementation of the new MARPOL requirements on EEDI for new ships, in particular developing States.

We underline that the support for the Resolution can in no way be seen as an acceptance that other principles than those enshrined in the IMO Convention and other conventions under IMO, including the MARPOL Convention, shall govern the work in IMO and does not accept that the UNFCCC principles, such as that of Common But Differentiated Responsibilities and Respective Capabilities that are currently applied under the UNFCCC and its Kyoto Protocol, shall be used in IMO regulations.

Nor shall support for the Resolution pre-empt any discussions in the UNFCCC on the principles governing the work in that setting.

We are pleased that we have finalized the resolution and encourage all states that have the ability to do so to participate actively in finding solutions to the requests for technical assistance that may arise.

Statement by the delegation of India

Respected Mr. Chairman, distinguished delegates from Member States,

At the outset, India congratulates you, Mr. Chairman, and the Chairman of the Working Group Mr. Arsenio Dominguez for your able leadership, without which this Resolution for Technology Transfer and Capacity Building would never have been materialized. Though we also have come far away from our initial position on the issue, our agreement to this resolution is India's endorsement of the views of this organization, that 'sustainable development', is the only way forward for the international community to address the current climate change issues.

We also thank the member states, particularly the developed states for recognising that the reference to the UNFCCC and the CBDR in the resolution are essential for the effective implementation of the GHG emission control measures, being ambitiously promulgated by world community, including the IMO.

Distinguished delegates, by accepting UNFCCC and CBDR, we are only recognizing the historical realities of contrasting contributions of the developed and the developing countries to global environmental problems and the undeniable differences in the economic and technical capacities of both these groups of countries to address the climate related issues. This has been the position of India in all fora of climate change negotiations, which now stands vindicated in this floor as well.

However, we are still apprehensive of the extent to which, the spirit of this resolution is going to be transformed to reality. Hence, India strongly requests the Organization to put in place effective mechanisms to continuously assess and monitor the effectiveness of implementation of this resolution, so that the support materially reaches the entitled developing nations.

Climate Change negotiations are taking place against the backdrop of an increasingly globalized and interdependent world economy. Development must, therefore, remain at the centre of the global discourse and should not impose conditionalities or additional burdens on developing countries. It must not sharpen the division of the world between an affluent North and an impoverished South, and justify this with a green label.

It is India's view that the planetary atmospheric space is a common resource of humanity and each citizen of the globe has an equal entitlement to that space. The principle of equity, therefore, implies that, over a period of time, there should be a convergence in per capita emissions.

Mr. Chairman, India believes that with the adoption of this resolution, at least in this present form is our first collective step towards this. We hope that the implementation of this resolution will also take place in the same spirit.
Thank You Mr. Chairman.

Statement by the delegation of Nigeria

Mr Chairman

You are really a true magician!

Nigeria delegation wants to appreciate your very good efforts, and the Chairman of the Working Group. We also want to thank the Secretariat for working so hard into the late night.

We welcome and support the Resolution.

We hope this good spirit of give and take among member States will continue to prosper in this Organisation.

Thank you!

Statement by the delegation of Norway

Mr. Chairman,

Norway wants to express sincere thanks to everyone which has been involved in the development of this resolution. I think yet again this Organisation set an excellent standard for the true global co-operation. Allow me also to express thanks to our elected chairman Aresnio Domingez and you Mr. Chairman. This would not be possible without your extensive efforts. We also want to express thanks to South Africa for a brave proposal submitted to this session. Allow me also to express my special thanks to Ambassador Marcos Pinto Gama of Brazil which engaged in a fruitful intersessional cooperation with me.

Sir, the adaption of this resolution represents also adaption of a better climate for cooperation on reduction of GHG emissions form international shipping.

Thank you Mr. Chairman.

Statement by the delegation of Peru

Thank you Mr. President,

The delegation of Peru would like to emphasize that, as a country highly vulnerable to the harmful effects of climate change, Peru considers itself to be, and is, fully committed to the multilateral efforts to reach a binding, far-reaching and effective agreement in keeping with the United Nations Framework Convention on Climate Change. The recent approval, by acclamation, of the draft resolution on promotion of technical cooperation and transfer of technology fills us with optimism for continuation of the work to develop concrete measures to reduce greenhouse gas emissions.

We should also like to join in the acknowledgement and thanks expressed for the leadership shown by the Chairman and Vice-Chairman, for the climate of cooperation and friendship among the delegations and for the healthy exchanges of opinion with delegates from each of the groups.

Statement by the delegation of Saudi Arabia

We would like to thank the chairman of the working group and all members for their hard work. We understand that all members, including Saudi Delegation, did not hold on their initial position on this issue in order to succeed in adopting this resolution. We look forward to working with the IMO to give effect to this resolution respecting all principles stated in it.

Statement by the delegation of Venezuela

Thank you Mr. President,

I believe that the position of Venezuela has been more than clear and its concerns about the history of the actions taken on this matter from the outset are very much in line with what has been said by China. We acknowledge the great efforts made by all parties and have maintained our commitment to lending our support to bring about the best outcome for all parties. We should all now congratulate ourselves on the tremendous effort made by everyone involved – Secretariat, Member States and Committee officers – and on the impeccable leadership of the Chairman and Vice-Chairman, which has helped us achieve clear and tangible progress on this matter. I say this because we are only at the beginning of the road, and it will be actions that dictate and define what we do in the future, giving due weight to the United Nations Framework Convention on Climate Change and the Kyoto Protocol, which are the only universal binding instruments in matters relating to climate change. Lastly, we support Argentina's comment on correct translation of the term in document MEPC 65/J/10.

Statement by the delegation of Argentina

The Argentine delegation wishes to state that, following previous problems with translations of documents, it should be noted that the word "enshrined" in English is translated as "consagrado(s)" in Spanish.

Thank you

ANNEX 6

STATEMENTS BY THE DELEGATIONS OF CHINA AND THE RUSSIAN FEDERATION ON THE IMPACT ON THE ARCTIC OF EMISSIONS OF BLACK CARBON

Statement by the delegation of the Russian Federation

The Russian Federation would like to thank Norway for the submitted document MEPC 65/4/22.

The Russian Federation, as one of the Arctic states, conducts a systematic policy to increase the safety of navigation in the Arctic region, including in the water of the Northern Sea Route, and the protection of the Arctic marine environment. The Russian Federation actively participates in relevant working bodies of the Arctic Council.

In this regard, we would like to draw attention to the fact that the submitted report/analysis by Arctic Monitoring and Assessment Program (AMAP) didn't consider at the Working Group of the Arctic Council for the Protection of the Marine Environment (PAME). Namely, in the framework of PAME the shipping experts of the Arctic Council countries participate and held discussions on the implementation of the recommendations of the Arctic Marine Shipping Assessment (AMSA) which was approved at the Ministerial Meeting of the Arctic Council in 2009.

The emissions of black carbon from international shipping have been considered at the first PAME meeting in 2013. It was no reach the consensus that urgent action is needed to reduce these emissions from international shipping in the Arctic.

In the record of the decision of PAME I-2013 all Arctic Council countries encourages continued scientific research related to Black Carbon emissions including with respect to a technical definition of "Black Carbon" and appropriate measurement methods and control measures.

BLG Sub-Committee already has a request of MEPC to consider the issue. However, so far no agreement on the definition of "black carbon" as well as appropriate measures measurement and control of these emissions. We believe that to begin with it is necessary to complete the above task. The interpretation of any research concerning the emissions from shipping should be conducted on the basis of the agreed conclusions of the task in question.

In this regard, we believe that any conclusions about the need for "urgent measures" as well as consideration of the potential mitigation action of BC are premature. We support the transfer this matter to a BLG Sub-Committee for further consideration.

Thank you for your attention!

Statement by the delegation of China

China understands that the discussion on the black carbon issue was originated from document MEPC 60/4/24, where it states that "shipping is a contributor to black carbon emissions, and because shipping traffic in the Arctic is expected to grow substantially ...". At MEPC 61, MEPC 64 and BLG Sub-Committee meetings, the discussion on the black carbon issue was limited to "black carbon emissions by shipping in the Arctic Region". In addition, black carbon has a much shorter atmospheric lifetime, emissions by ships out of the Arctic Region could hardly have any impact in the Region, therefore, the discussion on the black carbon issue by the BLG Sub-Committee should be limited to "the impact of black carbon emissions by ships operating in the Arctic Region".

The delegation of China stated that consideration of black carbon at previous MEPC and BLG meetings has been limited to "black carbon emissions by shipping in the Arctic Region". China proposed that discussion of black carbon at BLG 18 Sub-Committee should be limited to "the impact of black carbon emissions by ships operating in the Arctic Region".

ANNEX 7

**DRAFT AMENDMENTS TO THE TECHNICAL CODE ON CONTROL OF
EMISSION OF NITROGEN OXIDES FROM MARINE DIESEL ENGINES
(NO_x TECHNICAL CODE 2008)**

- 1 In abbreviations, subscripts and symbols, table 4 is replaced by the following:

Table 4 – Symbols for fuel composition

Symbol	Definition	Unit
W_{ALE}^*	H content of fuel	% m/m
W_{BET}^*	C content of fuel	% m/m
W_{GAM}	S content of fuel	% m/m
W_{DEL}^*	N content of fuel	% m/m
W_{EPS}^*	O content of fuel	% m/m
α	Molar ratio (H/C)	1

* Subscripts "_G" denotes gas fuel fraction.
"_L" denotes liquid fuel fraction.

- 2 Paragraph 1.3.10 is replaced by the following:

"1.3.10 *Marine diesel engine* means any reciprocating internal combustion engine operating on liquid or dual fuel, to which regulation 13 applies, including booster/compound systems if applied.

Where an engine is intended to be operated normally in the gas mode, i.e. with the main gas fuel and only a small amount of liquid pilot fuel, the requirements of regulation 13 have to be met only for this operation mode. Operation on pure liquid fuel resulting from restricted gas supply in cases of failures shall be exempted for the voyage to the next appropriate port for the repair of the failure."

- 3 The existing paragraph 5.3.4 is deleted.

- 4 New paragraphs 5.3.4, 5.3.5 and 5.3.6 are added after the existing paragraph 5.3.3 as follows:

"5.3.4 The selection of gas fuel for testing for dual fuel depends on the aim of tests. In case where an appropriate standard gas fuel is not available, other gas fuels shall be used with the approval of the Administration. A gas fuel sample shall be collected during the test of the parent engine. The gas fuel shall be analysed to give fuel composition and fuel specification.

5.3.5 Gas fuel temperature shall be measured and recorded together with the measurement point position.

5.3.6 Gas mode operation of dual fuel engines using liquid fuel as pilot or balance fuel shall be tested using maximum liquid-to-gas fuel ratio, such maximum ratio means for the different test cycle modes the maximum liquid-to-gas setting certified. The liquid fraction of the fuel shall comply with 5.3.1, 5.3.2 and 5.3.3."

5 A new sentence is added at the end of existing paragraph 5.12.3.3 as follows:

"In case of using dual fuel, the calculation shall be in accordance with paragraphs 5.12.3.1 to 5.12.3.3. However, q_{mf} , W_{ALF} , W_{BET} , W_{DEL} , W_{EPS} , f_{fw} values shall be calculated in accordance with the following table."

Factors in the formula (6) (7) (8)		Formula for factors
q_{mf}	=	$q_{mf_G} + q_{mf_L}$
W_{ALF}	=	$\frac{q_{mf_G} \times W_{ALF_G} + q_{mf_L} \times W_{ALF_L}}{q_{mf_G} + q_{mf_L}}$
W_{BET}	=	$\frac{q_{mf_G} \times W_{BET_G} + q_{mf_L} \times W_{BET_L}}{q_{mf_G} + q_{mf_L}}$
W_{DEL}	=	$\frac{q_{mf_G} \times W_{DEL_G} + q_{mf_L} \times W_{DEL_L}}{q_{mf_G} + q_{mf_L}}$
W_{EPS}	=	$\frac{q_{mf_G} \times W_{EPS_G} + q_{mf_L} \times W_{EPS_L}}{q_{mf_G} + q_{mf_L}}$

6 Table 5 is replaced by the following:

"Table 5 – Coefficient u_{gas} and fuel-specific parameters for raw exhaust gas

Gas	ρ_{gas} kg/m ³	NO _x	CO	HC	CO ₂	O ₂
		2.053	1.250	*	1.9636	1.4277
	ρ_e †	Coefficient u_{gas} ‡				
Liquid fuel**	1.2943	0.001586	0.000966	0.000479	0.001517	0.001103
Rapeseed Methyl Ester	1.2950	0.001585	0.000965	0.000536	0.001516	0.001102
Methanol	1.2610	0.001628	0.000991	0.001133	0.001557	0.001132
Ethanol	1.2757	0.001609	0.000980	0.000805	0.001539	0.001119
Natural gas	1.2661	0.001621	0.000987	0.000558	0.001551	0.001128
Propane	1.2805	0.001603	0.000976	0.000512	0.001533	0.001115
Butane	1.2832	0.001600	0.000974	0.000505	0.001530	0.001113

- * Depending on fuel.
- ** Petroleum derived.
- † ρ_e is the nominal density of the exhaust gas.
- ‡ At $\lambda = 2$, wet air, 273 K, 101.3 kPa."

Values for u given in table 5 are based on ideal gas properties. In multiple fuel type operation the u_{gas} value used shall be determined from the values applicable to those fuels in the table set out above proportioned in accordance to the fuel ratio used.

7 Paragraph 6.3.1.4 is replaced by the following:

"6.3.1.4 In practical cases, it is often impossible to measure the fuel oil consumption once an engine has been installed on board a ship. To simplify the procedure on board, the results of the measurement of the fuel oil consumption from an engine's pre-certification test-bed testing may be accepted. In such cases, especially concerning residual fuel oil operation (RM-grade fuel oil according to

ISO 8217:2005) and dual fuel operation, an estimation with a corresponding estimated error shall be made. Since the fuel oil flow rate used in the calculation (q_{mf}) must relate to the fuel oil composition determined in respect of the fuel sample drawn during the test, the measurement of q_{mf} from the test-bed testing shall be corrected for any difference in net calorific values between the test bed and test fuel oils and gases. The consequences of such an error on the final emissions shall be calculated and reported with the results of the emission measurement."

8 Table 6 is replaced by the following:

"Table 6 – Engine parameters to be measured and recorded

Symbol	Term	Unit
H_a	Absolute humidity (mass of engine intake air water content related to mass of dry air)	g/kg
$n_{d,i}$	Engine speed (at the i^{th} mode during the cycle)	min ⁻¹
$n_{turb,i}$	Turbocharger speed (if applicable) (at the i^{th} mode during the cycle)	min ⁻¹
P_b	Total barometric pressure (in ISO 3046-1:1995: $p_x = P_x =$ site ambient total pressure)	kPa
$P_{C,i}$	Charge air pressure after the charge air cooler (at the i^{th} mode during the cycle)	kPa
P_i	Brake power (at the i^{th} mode during the cycle)	kW
$q_{mf,i}$	Fuel oil (in case of dual fuel engine, it would be fuel oil and gas) (at the i^{th} mode during the cycle)	kg/h
s_i	Fuel rack position (of each cylinder, if applicable) (at the i^{th} mode during the cycle)	
T_a	Intake air temperature at air inlet (in ISO 3046-1:1995: $T_x = TTx =$ site ambient thermodynamic air temperature)	K
$T_{SC,i}$	Charge air temperature after the charge air cooler (if applicable) (at the i^{th} mode during the cycle)	K
$T_{cacli n}$	Charge air cooler, coolant inlet temperature	°C
$T_{cacli out}$	Charge air cooler, coolant outlet temperature	°C
$T_{Exh,i}$	Exhaust gas temperature at the sampling point (at the i^{th} mode during the cycle)	°C
T_{Fuel}	Fuel oil temperature before the engine	°C
T_{Sea}	Seawater temperature	°C
$T_{Fuel G}^*$	Gas fuel temperature before the engine	°C

* only for dual-fuel engine."

9 New paragraph 6.3.4.3 is added after existing paragraph 6.3.4.2 as follows:

"6.3.4.3 In case of dual fuel engine, the gas fuel used shall be the gas fuel available on board."

10 Paragraph 6.3.11.2 is replaced by the following:

"6.3.11.2 The NO_x emission of an engine may vary depending on the ignition quality of the fuel oil and the fuel-bound nitrogen. If there is insufficient information available on the influence of the ignition quality on the NO_x formation during the combustion process and the fuel-bound nitrogen conversion rate also depends on the engine efficiency, an allowance of 10 per cent may be granted for an on board test run carried out on an RM-grade fuel oil (ISO 8217:2005), except that there will be no allowance for the pre-certification test on board. The fuel oil and gas fuel used shall be analysed for its composition of carbon, hydrogen, nitrogen, sulphur and, to the extent given in (ISO 8217:2005) and (ISO 8178-5:2008), any additional components necessary for a specification of the fuel oil and gas fuel."

11 Table 9 is replaced by the following:

"Table 9 – Default fuel oil parameters

	Carbon	Hydrogen	Nitrogen	Oxygen
	<i>W_{BET}</i>	<i>W_{ALF}</i>	<i>W_{DEL}</i>	<i>W_{EPS}</i>
Distillate fuel oil (ISO 8217:2005, DM grade)	86.2%	13.6%	0.0%	0.0%
Residual fuel oil (ISO 8217:2005, RM grade)	86.1%	10.9%	0.4%	0.0%
Natural gas	75.0%	25.0%	0.0%	0.0%

For other fuel oils, default value as approved by the Administration."

12 New paragraph 2.5 is added after existing paragraph 2.4 in appendix VI as follows:

"2.5 q_{mf} , W_{ALF} , W_{BET} , W_{DEL} , W_{EPS} , f_{fd} parameters, in formula (1), in case of gas mode operation of dual fuel engine, shall be calculated as follows:"

Factors in formula (1)		Formula of factors
q_{mf}	=	$q_{mf_G} + q_{mf_L}$
W_{ALF}	=	$\frac{q_{mf_G} \times W_{ALF_G} + q_{mf_L} \times W_{ALF_L}}{q_{mf_G} + q_{mf_L}}$
W_{BET}	=	$\frac{q_{mf_G} \times W_{BET_G} + q_{mf_L} \times W_{BET_L}}{q_{mf_G} + q_{mf_L}}$
W_{DEL}	=	$\frac{q_{mf_G} \times W_{DEL_G} + q_{mf_L} \times W_{DEL_L}}{q_{mf_G} + q_{mf_L}}$
W_{EPS}	=	$\frac{q_{mf_G} \times W_{EPS_G} + q_{mf_L} \times W_{EPS_L}}{q_{mf_G} + q_{mf_L}}$

ANNEX 8

MEPC RESOLUTION MEPC.230(65)

Adopted on 17 May 2013

**2013 GUIDELINES AS REQUIRED BY REGULATION 13.2.2 OF
MARPOL ANNEX VI IN RESPECT OF NON-IDENTICAL
REPLACEMENT ENGINES NOT REQUIRED
TO MEET THE TIER III LIMIT**

THE MARINE ENVIRONMENT PROTECTION COMMITTEE,

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

RECALLING ALSO that, at its fifty-eighth session, the Committee adopted, by resolution MEPC.176(58), a revised MARPOL Annex VI (hereinafter referred to as "MARPOL Annex VI") which significantly strengthens the emission limits for nitrogen oxides (NO_x) in light of technological improvements and implementation experience,

NOTING that regulation 13.2.2 of MARPOL Annex VI specifies which NO_x emission standard shall be applied when a marine diesel engine is replaced with a non-identical marine diesel engine,

RECOGNIZING the need to develop guidelines to set forth the criteria of when it is not possible for a replacement engine to meet the standards in regulation 13.5.1.1 (Tier III),

HAVING CONSIDERED, at its sixty-fifth session, the guidelines as required by regulation 13.2.2 in respect of non-identical replacement engines not required to meet the Tier III limit, proposed by the Sub-Committee on Bulk Liquids and Gases at its seventeenth session,

1. ADOPTS the Guidelines as required by regulation 13.2.2 in respect of non-identical replacement engines not required to meet the Tier III limit, as set out at annex to the present resolution;
2. INVITES Administrations to take the annexed Guidelines into account when certifying a marine diesel engine which is replaced with a non-identical marine diesel engine;
3. REQUESTS the *Parties* to MARPOL Annex VI and other Member Governments to bring the annexed Guidelines to the attention of shipowners, ship operators, shipbuilders, marine diesel engine manufacturers, and any other interested groups; and
4. AGREES to keep these Guidelines under review in light of the experience gained.

**GUIDELINES AS REQUIRED BY REGULATION 13.2.2 IN RESPECT OF
NON-IDENTICAL REPLACEMENT ENGINES NOT REQUIRED
TO MEET THE TIER III LIMIT**

1 When it becomes necessary to replace an engine to which regulation 13 of MARPOL Annex VI applies in principle (power output of more than 130 kW) the non-identical replacement engine shall comply with the standards set forth in paragraph 5.1.1 of the respective regulation (Tier III) when operating in an area designated under regulation 13.6 of MARPOL Annex VI if the replacement takes place on or after 1 January 2016 unless:

- .1 a replacement engine of similar rating complying with Tier III is not commercially available; or
- .2 the replacement engine, in order to be brought into Tier III compliance, needs to be equipped with a NO_x reducing device which due to:
 - .1 size cannot be installed in the limited space available on board; or
 - .2 extensive heat release could have adverse impact on the ships structure, sheeting, and/or equipment whilst additional ventilation and/or insulation of the engine-room/compartment will not be possible.

2 In making the determination that a Tier III engine is not a feasible replacement engine for a ship, it should be necessary to evaluate not just engine dimensions and weight but may also include other pertinent ship characteristics. These pertinent characteristics could include:

- .1 downstream ship components such as drive shafts, reduction gears, cooling systems, exhaust and ventilation systems, and propeller shafts;
- .2 electrical systems for diesel generators (indirect drive engines); and
- .3 such other ancillary systems and ship equipment that would affect the choice of an engine.

3 Restrictions should also be considered concerning engine adjustment/matching needed to meet boundary conditions and performance data necessary for SCR operation at all relevant mode points.

4 If the replacement engine is part of a multi-engine (twin-engine) arrangement and it is replacing an engine that is not a Tier III compliant engine due to it having been installed prior to the Tier III implementation date, a need to match a replacement engine within a multi-engine arrangement should be part of the criteria to be considered. In such cases, if it were decided to exempt a replacement engine in multi-engine arrangements it must be clear that is where engines are installed as matched pairs (or more) as propulsion engines and that matching is necessary to ensure comparable manoeuvring/drive response rather than where multiple engines are installed such as in the case of generators.

5 A replacement engine that meets the Tier III limit should be installed provided it does not incur an increase in the ship's electrical demand beyond the installed capacity.

6 In no case should modification to the ship's structure be allowed which weakens its structural stability below the acceptable level.

7 The Administration should consider how far the shipowner's specification of the device will determine whether a non-identical replacement engine is not required to meet the Tier III limit (for example, by requiring an excessive urea storage capacity – relative to bunker capacity – or that the SCR device is not to increase engine weight/volume by more than an unjustifiably low percentage).

8 There may be differences between a Tier III and a Tier II engine that should **not** affect the determination of whether a non-identical replacement engine should not be required to meet the Tier III limit, such as:

- .1 warranty period or life expectancy;
- .2 cost; or
- .3 production lead time.

9 The shipowner should provide evidence to the Administration that a Tier III engine cannot be installed and should report specifically what prevents a Tier III compliant engine from being installed, taking into account the provisions of these guidelines. The shipowner should document the search for compliant Tier III engines and explain why the closest available engine with respect to size or performance is not appropriate for the ship. The search should include engines produced by manufacturers other than the original engine's manufacturer. This documentation, duly endorsed by the Administration, should be kept with the replacement engine's EIAPP Certificate.

ANNEX 9

UNIFIED INTERPRETATION TO REGULATION 13.2.2 OF MARPOL ANNEX VI CONCERNING "TIME OF THE REPLACEMENT OR ADDITION" OF AN ENGINE FOR THE APPLICABLE NO_x TIER STANDARD FOR THE SUPPLEMENT TO THE IAPP CERTIFICATE

Regulation 13

Nitrogen oxides (NO_x)

Regulation 13.2.2 reads as follows:

For a major conversion involving the replacement of a marine diesel engine with a non-identical marine diesel engine or the installation of an additional marine diesel engine, the standards in this regulation in force at the time of the replacement or addition of the engine shall apply.

Interpretation

The term "time of the replacement or addition" of the engine in regulation 13.2.2 of MARPOL Annex VI is to be taken as the date of:

- .1 the contractual delivery date of the engine to the ship^{*}; or
- .2 in the absence of a contractual delivery date, the actual delivery date of the engine to the ship^{*}, provided that the date is confirmed by a delivery receipt; or
- .3 in the event the engine is fitted on board and tested for its intended purpose on or after 1 July 2016, the actual date that the engine is tested on board for its intended purpose applies in determining the standards in this regulation in force at the time of the replacement or addition of the engine.

The date in paragraphs .1, .2 or .3 above, provided the conditions associated with those dates apply, is the "Date of major conversion – According to regulation 13.2.2" to be entered in the IAPPC Supplement. In this case, the "Date of installation", which applies only for identical replacement engines, shall be filled in with "N.A."

If the engine is delivered in accordance with either paragraphs .1 or .2 above before 1 January 2016 but not tested before 1 July 2016 due to unforeseen circumstances beyond the control of the shipowner, then the provisions of "unforeseen delay in delivery" may be considered by the Administration in a manner similar to MARPOL Annex I UI4.

* The engine is to be fitted on board and tested for its intended purpose before 1 July 2016.

ANNEX 10

UNIFIED INTERPRETATION TO REGULATION 13 OF MARPOL ANNEX VI ON IDENTICAL REPLACEMENT ENGINES

Regulation 13

Nitrogen oxides (NO_x)

Regulation 13.1.1.2 reads as follows:

"2.2 each marine diesel engine with a power output of more than 130 kW which undergoes a major conversion on or after 1 January 2000 except when demonstrated to the satisfaction of the Administration that such engine is an identical replacement to the engine which it is replacing and is otherwise not covered under paragraph 1.1.1 of this regulation."

Regulation 13.2.2 reads as follows:

"2.2 For a major conversion involving the replacement of a marine diesel engine with a non-identical marine diesel engine or the installation of an additional marine diesel engine, the standards in this regulation in force at the time of the replacement or addition of the engine shall apply."

Interpretation:

In regulation 13.1.1.2 the term "identical" (and hence, by application of the converse, in regulation 13.2.2 the term "non-identical") as applied to engines under regulation 13 is to be taken as:

An "identical engine" is, as compared to the engine being replaced*, an engine which is of the same:

- design and model;
 - rated power;
 - rated speed;
 - use;
 - number of cylinders;
 - fuel system type (including, if applicable, injection control software); and
- (a) for engines without EIAPP certification, have the same NO_x critical components and settings**; or

- (b) for engines with EIAPP certification, belonging to the same Engine Group/Engine Family.

* In those instances where the replaced engine will not be available to be directly compared with the replacing engine at the time of updating the Supplement to the IAPP Certificate reflecting that engine change it is to be ensured that the necessary records in respect of the replaced engine are available in order that it can be confirmed that the replacing engine represents "an identical engine".

** For engines without EIAPP Certification there will not be the defining NO_x critical component markings or setting values as usually given in the approved Technical File. Consequently in these instances the assessment of "... same NO_x critical components and settings ..." shall be established on the basis that the following components and settings are the same:

Fuel system

- (a) Fuel pump model and injection timing
- (b) Injection nozzle model

Charge air

- (a) Configuration and, if applicable, turbocharger model and auxiliary blower specification
- (b) Cooling medium (seawater/freshwater)

ANNEX 11

STATEMENTS BY THE DELEGATIONS OF THE UNITED STATES AND OBSERVERS FROM EUROMOT AND ICOMIA ON THE REVIEW OF THE STATUS OF THE TECHNOLOGICAL DEVELOPMENTS TO IMPLEMENT TIER III NO_x EMISSION STANDARDS

Statement by the delegation of the United States

Thank you Mr. Chairman.

When the US ratified Annex VI of MARPOL, we did it for two important reasons. First, it assured to provide international shipping one consistent international standard regarding air emissions. Secondly, the emission standards met our environmental needs to protect our citizens.

An important component of Annex VI is the availability of emission control areas, for which we received approval, through this committee, two of them: the North America and United States Caribbean emission control areas.

At the beginning of this session, we took a decision to delay the Tier III NO_x standards in emission control areas by 5 years, from 2016 to 2021. The United States fully acknowledges this decision was correctly taken, but unfortunately, that decision only affects the Tier III NO_x standards in the two approved US emission control areas.

As some might imagine, this has caused us great concern and led to our reservation. Quite frankly we expected the date for Tier III NO_x emissions in emission control areas. There has been significant work undertaken to ensure ships could and would be able to meet the Tier III NO_x standards in our emission control areas by 1 January 2016. Our marine engine industry has heavily invested many millions of US dollars and is prepared to meet the Tier III NO_x standards. This change calls into question this very significant investment.

Therefore, without prejudice and with no suggestion to change the basic decision we reached concerning the date for the Tier III NO_x standards, we are requesting the committee to consider a separate and additional decision.

We are asking the Committee to agree to "grandfather" the date of 1 January 2016 for the only two existing emission control areas with Tier III NO_x standards, which are the two US emission control areas, namely the North America and United States Caribbean areas.

If the Committee agrees with this decision, it would have no impact on any future NO_x emission control areas approved by this committee. And as this only pertains to NO_x, it will have no impact on existing sulfur emission control areas or the global standards for either sulfur or NO_x. This means that for all future NO_x emission control areas, the date for the Tier III NO_x standards would be 1 January 2021, as we agreed.

We also realize that if the Committee agrees, it raises a number of other issues.

We realize that if the Committee agrees with our proposal, it could affect the class of yachts for which the Marshall Islands and the Cook Islands and their co-sponsors had submitted a proposal in document MEPC 65/4/32 to request a delay in the Tier III NO_x standards. As the Committee noted, their request was overtaken by our decision to delay the Tier III

NO_x requirements to 2021. We fully agree that the decision for those yachts identified in the Marshal Islands and Cook Islands must remain at 2021.

Then there is the question of text of the amendments. In that regard, provided the Committee agrees with our proposal, we will submit, more than six months in advance of MEPC 66, the text of the amendments and ensure it is available for all countries to view and evaluate. This will enable all countries to verify that the text does exactly what it is supposed to do and that it is accurate and correct when they come up for adoption at MEPC 66.

We also understand that if the Committee agrees to retain the 2016 date for the North America and United State Caribbean Sea areas for the Tier III NO_x standards, it will impact the industry. As we have done throughout the implementation of these two emission control areas we will continue to work with the industry, including ship owners, operators, designers, builders and flag states to utilize the flexibility as provided in MARPOL Annex VI to ensure the smooth implementation, taking into account the concerns, views and difficulties of the industry.

We hope the Committee can agree with our proposal.

Thank you Mr. Chairman.

Statement by the observer from ICOMIA

Thank you Mr Chairman,

ICOMIA & SYBAss regret the uncertainty in which the recreational yacht sector now finds itself with Tier III likely unresolved until the next MEPC. Designs and tooling especially for Fibre Reinforced Plastic vessels need to be finalised over the next 12 months for new build in 2016 and the continued investment by the engine manufacturers in Tier III installations is open to question during the next year. We need certainty and clarity as soon as possible and would respectfully ask that our Tier III issues as set out MEPC 65/4/8 remain under consideration. Notwithstanding this, we are grateful to the delegation of the United States for their proposal and can support it as a pragmatic way forward.

We request this statement is included in the report of the Committee.

Statement by the observer from EUROMOT

Dear Mr. Chairman, Distinguished Delegates,

EUROMOT as Association of Engine Manufacturers needs of course to address some words to the results reflected in the working paper 14. We followed the discussion regarding the availability of Tier III-Technology in the plenary on Wednesday with incomprehension.

EUROMOT members were convinced that the outcome of the Correspondence Group brought up the result that we as engine manufacturer will keep our promise to the shipping community of having Tier III-Technologies readily available for 2016.

The industry is spending lot of effort and resources in a value of a three digit million US-Dollar amount for developing SCR-Technology, Exhaust Gas Recirculation, Dual Fuel respectively Gas and other technologies.

By the decision on Wednesday, to postpone the Tier III implementation to 2021, the engine manufacturers are severely affected.

With this in mind, it is difficult for the industry to continue with a proactive development of new environmental technologies for the future.

We would like to have our statement reflected in the report to MEPC 65 and can hand it over to the Secretariat.

Thank you Chair

ANNEX 12

DRAFT AMENDMENTS TO MARPOL ANNEX VI (EFFECTIVE DATE FOR TIER III NO_x EMISSION STANDARDS)

Regulation 13

- 1 Regulation 13.2.2 is amended as follow:

"2.2 For a major conversion involving the replacement of a marine diesel engine with a non-identical marine diesel engine or the installation of an additional marine diesel engine, the standards in this regulation in force at the time of the replacement or addition of the engine shall apply. On or after 1 January 2021, in the case of replacement engines only, if it is not possible for such a replacement engine to meet the standards set forth in paragraph 5.1.1 of this regulation (Tier III), then that replacement engine shall meet the standards set forth in paragraph 4 of this regulation (Tier II). Guidelines are to be developed by the Organization to set forth the criteria of when it is not possible for a replacement engine to meet the standards in paragraph 5.1.1 of this regulation."

- 2 Regulation 13.5.1 is amended as follows:

"5.1 Subject to regulation 3 of this annex, the operation of a marine diesel engine that is installed on a ship constructed on or after 1 January 2021:"

Appendix 1

- 3 A footnote in Supplement to International Air Pollution Prevention Certificate (IAPP Certificate) in appendix I is amended as follows:

"Completed only in respect of ships constructed on or after 1 January 2021 that are specially designed, and used solely, for recreational purposes and to which, in accordance with regulation 13.5.2.1, the NO_x emission limit as given by regulation 13.5.1.1 will not apply."

ANNEX 13

DRAFT AMENDMENTS TO MARPOL ANNEX VI

(Extension of the application of the EEDI to LNG carrier, ro-ro cargo ship (vehicle carrier), ro-ro cargo ship, ro-ro passenger ship and cruise passenger ship having non-conventional propulsion and exemption of ships not propelled by mechanical means and cargo ships having ice-breaking capacity)

Regulation 2

- 1 Paragraph 2.26 is amended and new paragraphs 2.38 to 2.42 are added as follows:
- 26 *Gas carrier* means a cargo ship, other than LNG carrier as defined in paragraph 38, constructed or adapted and used for the carriage in bulk of any liquefied gas.
- 38 *LNG carrier* means a cargo ship constructed or adapted and used for the carriage in bulk of liquefied natural gas (LNG):
- .1 for which the building contract is placed on or after [date of entry into force]; or
 - .2 in the absence of a building contract, the keel of which is laid or which is at a similar stage of construction on or after six months after [date of entry into force]; or
 - .3 the delivery of which is on or after 48 months after [date of entry into force].
- 39 *Cruise passenger ship* in relation to chapter 4 means a passenger ship not having a cargo deck, designed exclusively for commercial transportation of passengers in overnight accommodations on a sea voyage.
- 40 *Conventional propulsion* in relation to chapter 4 means a method of propulsion where a main engine is the prime mover and coupled to a propulsion shaft either directly or through a gear box.
- 41 *Non-conventional propulsion* in relation to chapter 4 means a method of propulsion, other than conventional propulsion, including diesel-electric propulsion, turbine propulsion, and hybrid propulsion systems.
- 42 *Cargo ship having ice-breaking capability* in relation to chapter 4 means a cargo ship which is designed to break level ice independently with a speed of at least 2 knot when the level ice thickness is 1.0 m or more having ice-bending strength at least 500 kPa.

Regulation 19

2 A new subparagraph 19.2.2 is added as follows:

"2 ships not propelled by mechanical means, and platforms including FPSOs and FSUs and drilling rigs, regardless of their propulsion."

3 Paragraph 19.3 is amended as follows;

"3 Regulations 20 and 21 shall not apply to ships which have non-conventional propulsion. However, regulations 20 and 21 shall apply to cruise passenger ships having non-conventional propulsion and LNG carriers having conventional or non-conventional propulsion, constructed on or after [date of entry into force]. Regulations 20 and 21 shall not apply to cargo ships having ice-breaking capability".

Regulation 20

4 Paragraph 20.1 is replaced as follows:

"1 The attained EEDI shall be calculated for:

.1 each new ship;

.2 each new ship which has undergone a major conversion; and

.3 each new or existing ship which has undergone a major conversion, that is so extensive that the ship is regarded by the Administration as a newly constructed ship,

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

Regulation 21

5 Paragraph 21.1 is replaced as follows:

"1 For each:

.1 new ship

.2 new ship which has undergone a major conversion; and

* Refer to the *Guidelines for the authorization of organizations acting on behalf of the Administration*, adopted by the Organization by resolution A.739(18), as may be amended by the Organization, and the *Specifications on the survey and certification functions of recognized organizations acting on behalf of the Administration*, adopted by the Organization by resolution A.789(19), as may be amended by the Organization.

- .3 new or existing ship which undergone a major conversion that is so extensive that the ship is regarded by the Administration as a newly constructed ship

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

$$\text{Attained EEDI} \leq \text{Required EEDI} = (1-X/100) \times \text{reference line value}$$

Where X is the reduction factor specified in table 1 for the required EEDI compared to the EEDI Reference line."

6 New rows are added to Table 1 in regulation 21.2 for ro-ro cargo ships (vehicle carrier), LNG Carrier, cruise passenger ship having non-conventional propulsion, ro-ro cargo ships and ro-ro passenger ships, and mark ** and *** and their explanations are added, as follows:

Ship Type	Size	Phase 0 1 Jan 2013 – 31 Dec 2014	Phase 1 1 Jan 2015 – 31 Dec 2019	Phase 2 1 Jan 2020 – 31 Dec 2024	Phase 3 1 Jan 2025 and onwards
LNG Carrier***	10,000 DWT and above	n/a	10**	20	30
Ro-ro cargo ship (vehicle carrier)***	10,000 DWT and above	n/a	5**	15	30
Ro-ro cargo ship***	2,000 DWT and above	n/a	5**	20	30
	1,000 – 2,000 DWT	n/a	0-5* **	0-20*	0-30*
Ro-ro passenger ship***	4,000 GT and above	n/a	5**	20	30
	1,000 - 4,000 GT	n/a	0-5* **	0-20*	0-30*
Cruise passenger ship*** having non-conventional propulsion	85,000 GT and above	n/a	5 **	20	30
	25,000 – 85,000 GT	n/a	0-5* **	0-20*	0-30*

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

** Phase 1 commences for those ships when the amendments to MARPOL Annex VI come into effect.

*** Reduction rate applies those ships constructed on or after [date of entry into force].

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

7 New rows are added to Table 2 in regulation 21.3 for ro-ro cargo ship (vehicle carrier), LNG carrier, cruise passenger ship having non-conventional propulsion, ro-ro cargo ships and ro-ro passenger ships as follows:

Ship type defined in regulation 2	a	b	c
2.33 Ro-ro cargo ship (vehicle carrier)	$(DWT/GT)^{0.7} \cdot 780.36$ where $DWT/GT < 0.3$ 1812.63 where $DWT/GT \geq 0.3$	DWT of the ship	0.471
2.34 Ro-ro cargo ship	1405.15	DWT of the ship	0.498
2.35 Ro-ro passenger ship	752.16	DWT of the ship	0.381
2.38 LNG carrier	2253.7	DWT of the ship	0.474
2.39 Cruise passenger ship having non-conventional propulsion	170.84	GT of the ship	0.214

ANNEX 14

RESOLUTION MEPC. 231(65)

Adopted on 17 May 2013

**2013 GUIDELINES FOR CALCULATION OF REFERENCE LINES FOR USE
WITH THE ENERGY EFFICIENCY DESIGN INDEX (EEDI)**

THE MARINE ENVIRONMENT PROTECTION COMMITTEE,

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

RECALLING ALSO that, at its sixty-second session, the Committee adopted, by resolution MEPC.203(62), amendments to the Annex of the Protocol of 1997 to amend the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto (inclusion of regulations on energy efficiency for ships in MARPOL Annex VI),

NOTING that regulation 21 (required EEDI) of MARPOL Annex VI, as amended, requires reference lines to be established for each ship type to which regulation 21 is applicable,

NOTING ALSO that Guidelines for calculation of reference lines for use with the Energy Efficiency Design Index (EEDI) were adopted at its sixty-third session,

HAVING CONSIDERED, at its sixty-fifth session, the draft amendments to Guidelines for calculation of reference lines for use with the Energy Efficiency Design Index (EEDI) for extension of the application of the EEDI to LNG carrier, ro-ro cargo ship (vehicle carrier), ro-ro cargo ship and ro-ro passenger ship,

1. ADOPTS the *2013 Guidelines for calculation of reference lines for use with the Energy Efficiency Design Index (EEDI)*, as set out at annex to the present resolution;
2. AGREES to keep these Guidelines under review in light of the experience gained;
and
3. REVOKES the Guidelines for calculation of reference lines for use with the Energy Efficiency Design Index (EEDI), adopted by resolution MEPC.215(63), as from this date.

2013 GUIDELINES FOR CALCULATION OF REFERENCE LINES FOR USE WITH THE ENERGY EFFICIENCY DESIGN INDEX (EEDI)

1 The reference lines are established for each ship type to which regulation 21 (Required EEDI) of MARPOL Annex VI is applicable. The purpose of the EEDI is to provide a fair basis for comparison, to stimulate the development of more efficient ships in general and to establish the minimum efficiency of new ships depending on ship type and size. Hence, the reference lines for each ship type is calculated in a transparent and robust manner.

2 Ship types are defined in regulation 2 of MARPOL Annex VI. The reference line for each ship type is used for the determination of the required EEDI as defined in regulation 21 of MARPOL Annex VI.

3 These guidelines apply to the following ships types: bulk carrier, gas carrier, tanker, containership, general cargo ship, refrigerated cargo carrier, combination carrier, ro-ro cargo ship, ro-ro cargo ship (vehicle), ro-ro passenger ship and LNG carrier. It is noted that a method of calculating reference lines has not been established for passenger ships other than cruise passenger ship having non-conventional propulsion.

Definition of a reference line

4 A reference line is defined as a curve representing an average index value fitted on a set of individual index values for a defined group of ships.

5 One reference line is developed for each ship type to which regulation 21 of MARPOL Annex VI is applicable, ensuring that only data from comparable ships are included in the calculation of each reference line.

6 The reference line value is formulated as *Reference line value = a (100% deadweight)^{-c}* where "a" and "c" are parameters determined from the regression curve fit.

7 Input data for the calculation of the reference lines is filtered through a process where data deviating more than two standard deviations from the regression line are discarded. The regression is then applied again to generate a corrected reference line. For the purpose of documentation, discarded data is listed with the ships IMO number.

Data sources

8 IHS Fairplay (IHSF) database is selected as the standard database delivering the primary input data for the reference line calculation. For the purpose of the EEDI reference line calculations, a defined version of the database is archived as agreed between the Secretariat and IHSF.

9 For the purpose of calculating the reference lines, data relating to existing ships of 400 GT and above from the IHSF database delivered in the period from 1 January 1999 to 1 January 2009 are used. For ro-ro cargo and ro-ro passenger ships, data relating to existing ships of 400 GT and above from the IHSF database delivered in the period from 1 January 1998 to 1 January 2010 are used.

10 The following data from the IHSF database on ships with conventional propulsion systems is used when calculating the reference lines:

- .1 data on the ships' capacity is used as *Capacity* for each ship type as defined in MEPC.212(63);
- .2 data on the ships' service speed is used as reference speed V_{ref} ; and
- .3 data on the ships' total installed main power is used as $MCR_{ME(i)}$.

11 For some ships, some data entries may be blank or contain a zero (0) in the database. Datasets with blank power, capacity and/or speed data should be removed from the reference line calculations. For the purpose of later references, the omitted ships should be listed with their IMO number.

12 To ensure a uniform interpretation, the association of ship types defined in regulation 2 of MARPOL Annex VI, with the ship types given by the IHSF database and defined by the so-called Stat codes, is shown in the appendix to this guideline. Table 1 in the appendix 1 lists the ship types from IHSF used for the calculation of reference lines. Table 2 lists the IHSF ship types not used when calculating the reference lines.

Calculation of reference lines

13 To calculate the reference line, an estimated index value for each ship contained in the set of ships per ship type is calculated using the following assumptions:

- .1 the carbon emission factor is constant for all engines, i.e. $C_{F,ME} = C_{F,AE} = CF = 3.1144$ g CO₂/g fuel;
- .2 the specific fuel consumption for all ship types is constant for all main engines, i.e. $SFC_{ME} = 190$ g/kWh;
- .3 $P_{ME(i)}$ is 75% of the total installed main power ($MCR_{ME(i)}$);
- .4 the specific fuel consumption for all ship types is constant for all auxiliary engines, i.e. $SFC_{AE} = 215$ g/kWh;
- .5 P_{AE} is the auxiliary power and is calculated according to paragraphs 2.5.6.1 and 2.5.6.2 of the annex to MEPC.212(63);
- .6 for ro-ro passenger ships, P_{AE} is calculated as follows:

$$P_{AE} = 0.866 \cdot GT^{0.732}$$

- .7 no correction factors are used except for f_{R0R0} and f_{cR0Pax} ; and
- .8 innovative mechanical energy efficiency technology, shaft motors and other innovative energy efficient technologies are all excluded from the reference line calculation, i.e. $P_{AEff} = 0$, $P_{PTI} = 0$, $P_{eff} = 0$.

14 The equation for calculating the estimated index value for each ship (excluding containerships and ro-ro cargo ships (vehicle carrier) – see paragraph 15) is as follows:

$$\text{Estimated Index Value} = 3.1144 \cdot \frac{190 \cdot \sum_{i=1}^{NME} P_{MEi} + 215 \cdot P_{AE}}{\text{Capacity} \cdot V_{ref}}$$

15 For containerships, 70 per cent of the deadweight (70% DWT) is used as *capacity* for calculating the estimated index value for each containership as follows:

$$\text{Estimated Index Value} = 3.1144 \cdot \frac{190 \cdot \sum_{i=1}^{NME} P_{MEi} + 215 \cdot P_{AE}}{70\% \text{DWT} \cdot V_{ref}}$$

16 For ro-ro cargo ship (vehicle carrier), the following equation is used:

$$\text{Estimated Index Value} = f_{roroV} \cdot 3.1144 \cdot \frac{190 \cdot \sum_{i=1}^{nME} P_{MEi} + 215 \cdot P_{AE}}{\text{Capacity} \cdot V_{ref}}$$

Where:

$$f_{roroV} = \frac{-15571 \cdot F_n^2 + 5538.4 \cdot F_n - 132.67}{287}$$

17 For ro-ro cargo ships the estimated index value for each individual ship is calculated as follows:

$$\text{Estimated Index Value} = \frac{3.1144 \cdot (f_{jRoRo} \cdot 190 \cdot \sum_{i=1}^{nME} P_{MEi} + 215 \cdot P_{AE})}{\text{Capacity} \cdot V_{ref}}$$

18 For ro-ro passenger ships the estimated index value for each individual ship is calculated as follows:

$$\text{Estimated Index Value} = \frac{3.1144 \cdot (f_{jRoRo} \cdot 190 \cdot \sum_{i=1}^{nME} P_{MEi} + 215 \cdot P_{AE})}{f_{cRoPax} \cdot \text{Capacity} \cdot V_{ref}}$$

19 For LNG carriers, the equation set out in appendix 2 is used.

Calculation of reference line parameters "a" and "c"

20 For all ship types to which these guidelines apply except for ro-ro passenger ships, parameters "a" and "c" are determined from a regression analysis undertaken by plotting the calculated estimated index values against 100 per cent deadweight (100% DWT).

21 For ro-ro passenger ships, parameters "a" and "c" are determined from a regression analysis undertaken by plotting the calculated estimated index values against corrected deadweight, DWT, for ships to which the capacity correction factor, f_{cRoPax} , applies and against 100 per cent deadweight (100% DWT) for ships to which the capacity correction factor does not apply.

Documentation

22 For purposes of transparency, the ships used in the calculation of the reference lines should be listed with their IMO numbers and the numerator and denominator of the index formula, as given in paragraphs 14 to 19. The documentation of the aggregated figures preserves the individual data from direct access but offers sufficient information for possible later scrutiny.

* * *

Appendix 1

1 To ensure a uniform interpretation, ship types defined in regulation 2 of MARPOL Annex VI are compared to the ship types given in the IHSF database.

2 The IHSF Stat code system provides several levels of definition as follows:

.1 Highest level:

A	Cargo carrying
B	Work vessel
W	Non-seagoing merchant ships
X	Non-merchant
Y	Non-propelled
Z	Non-ship structures

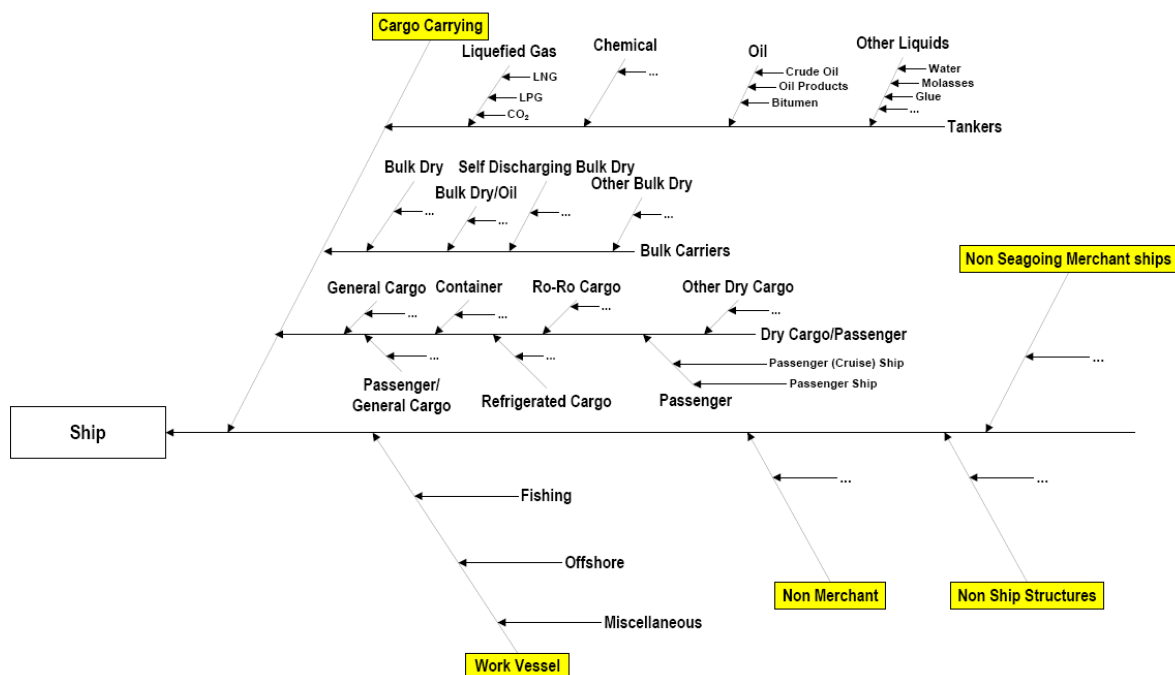
For the purpose of the EEDI, only group "A cargo carrying" needs to be considered. A graphical representation of this is given below.

.2 The next level comprises:

A1	Tankers
A2	Bulk carriers
A3	Dry cargo/passenger

There are further differentiations until level five, e.g. "A31A2GX General Cargo Ship", and each category is described.

The complete list is attached.



3 The ship types from the IHSF Stat code 5 (Statcode5v1075) used for the calculation of reference lines for the following ship types: bulk carrier, gas carrier, tanker, containership, general cargo ship, refrigerated cargo carrier and combination carrier, are set out in table 1. The IHSF database ship types, not used in the calculation of reference lines for the specific ship types, are set out in table 2, e.g. ships built for sailing on the Great Lakes and landing craft.

Table 1: Ship types from IHSF used for the calculation of reference lines for use with the EEDI

.1 Bulk carrier	Bulk dry	A21A2BC	Bulk carrier	A single deck cargo vessel with an arrangement of topside ballast tanks for the carriage of bulk dry cargo of a homogeneous nature.
	Bulk dry	A21B2BO	Ore carrier	A single deck cargo ship fitted with two longitudinal bulkheads. Ore is carried in the centreline holds only.
	Self-discharging bulk dry	A23A2BD	Bulk cargo carrier, self-discharging	A bulk carrier fitted with self-trimming holds, a conveyor belt (or similar system) and a boom which can discharge cargo alongside or to shore without the assistance of any external equipment.
	Other dry bulk	A24A2BT	Cement carrier	A single deck cargo vessel fitted with pumping arrangements for the carriage of cement in bulk. There are no weather deck hatches. May be self-discharging.
		A24B2BW	Wood chips carrier, self-unloading	A single deck cargo vessel with high freeboard for the carriage of wood chips. May be self-discharging.
		A24C2BU	Urea carrier	A single deck cargo vessel for the carriage of urea in bulk. May be self-discharging.
		A24D2BA	Aggregates carrier	A single deck cargo vessel for the carriage of aggregates in bulk. Also known as a sand carrier. May be self-discharging.
A24E2BL	Limestone carrier	A single deck cargo vessel for the carriage of limestone in bulk. There are no weather deck hatches. May be self-discharging.		
.2 Gas carrier	Liquefied gas	A11A2TN	LNG tanker	A tanker for the bulk carriage of liquefied natural gas (primarily methane) in independent insulated tanks. Liquefaction is achieved at temperatures down to -163 deg C.
		A11B2TG	LPG tanker	A tanker for the bulk carriage of liquefied petroleum gas in insulated tanks, which may be independent or integral. The cargo is pressurized (smaller vessels), refrigerated (larger vessels) or both ("semi-pressurized") to achieve liquefaction.
		A11C2LC	CO ₂ tanker	A tanker for the bulk carriage of liquefied carbon dioxide.
		A11A2TQ	CNG tanker	A tanker for the bulk carriage of compressed natural gas. Cargo remains in gaseous state but is highly compressed.

.3 Tanker	Chemical	A12A2LP	Molten sulphur tanker	A tanker for the bulk carriage of molten sulphur in insulated tanks at a high temperature.
		A12A2TC	Chemical tanker	A tanker for the bulk carriage of chemical cargoes, lube oils, vegetable/animal oils and other chemicals as defined in the International Bulk Chemical Code. Tanks are coated with suitable materials which are inert to the cargo.
		A12B2TR	Chemical/products tanker	A chemical tanker additionally capable of the carriage of clean petroleum products.
		A12C2LW	Wine tanker	A cargo ship designed for the bulk transport of wine in tanks. Tanks will be stainless steel or lined. New vessels will be classified as chemical carriers.
		A12D2LV	Vegetable oil tanker	A cargo ship designed for the bulk transport of vegetable oils in tanks. Tanks will be stainless steel or lined. New vessels will be classified as chemical carriers.
		A12E2LE	Edible oil tanker	A cargo ship designed for the bulk transport of edible oils in tanks. Tanks will be stainless steel or lined. New vessels will be classified as chemical carriers.
		A12F2LB	Beer tanker	A tanker for the bulk carriage of beer.
		A12G2LT	Latex tanker	A tanker for the bulk carriage of latex.
		A12H2LJ	Fruit juice tanker	A tanker for the bulk carriage of fruit juice concentrate in insulated tanks.
	Oil	A13A2TV	Crude oil tanker	A tanker for the bulk carriage of crude oil.
		A13A2TW	Crude/oil products tanker	A tanker for the bulk carriage of crude oil but also for carriage of refined oil products.
		A13B2TP	Products tanker	A tanker for the bulk carriage of refined petroleum products, either clean or dirty.
		A13B2TU	Tanker (unspecified)	A tanker whose cargo is unspecified.
		A13C2LA	Asphalt/Bitumen tanker	A tanker for the bulk carriage of asphalt/bitumen at temperatures between 150 and 200 deg C.
		A13E2LD	Coal/oil mixture tanker	A tanker for the bulk carriage of a cargo of coal and oil mixed as a liquid and maintained at high temperatures.
	Other liquids	A14A2LO	Water tanker	A tanker for the bulk carriage of water.
		A14F2LM	Molasses tanker	A tanker for the bulk carriage of molasses.
		A14G2LG	Glue tanker	A tanker for the bulk carriage of glue.
		A14H2LH	Alcohol tanker	A tanker for the bulk carriage of alcohol.
		A14N2LL	Caprolactam tanker	A tanker for the bulk carriage of caprolactam, a chemical used in the plastics industry for the production of polyamides.
	Chemical	A12A2TL	Parcels tanker	A chemical tanker with many segregated cargo tanks to carry multiple grades of chemicals as defined in the International Bulk Chemical Code. Typically these can have between 10 and 60 different tanks.

.4 Containership	Container	A33A2CC	Containership (fully cellular)	A single deck cargo vessel with boxed holds fitted with fixed cellular guides for the carriage of containers.
.5 General cargo ship	General cargo	A31A2GX	General cargo ship	A single or multi-deck cargo vessel for the carriage of various types of dry cargo. Single deck vessels will typically have box-shaped holds. Cargo is loaded and unloaded through weather deck hatches.
	Other dry cargo	A38H2GU	Pulp carrier	A vessel designed for carrying paper pulp.
.6 Refrigerated cargo carrier	Refrigerated cargo	A34A2GR	Refrigerated cargo ship	A multi-deck cargo ship for the carriage of refrigerated cargo at various temperatures.
.7 Combination carrier	Bulk dry/oil	A22A2BB	Bulk/oil carrier (OBO)	A bulk carrier arranged for the alternative (but not simultaneous) carriage of crude oil.
	Bulk dry/oil	A22B2BR	Ore/oil carrier	An ore carrier arranged for the alternative (but not simultaneous) carriage of crude oil.
	Bulk dry/oil	A22A2BP	Ore/bulk/products carrier	A bulk carrier arranged for the alternative (but not simultaneous) carriage of oil products.

Table 2: Ship types from IHSF not included in the calculation of reference lines for use with the EEDI

.1 Bulk carrier	Bulk dry	A21A2BG	Bulk carrier, laker only	A single deck cargo vessel with dimensions suited to the limitations of Great Lakes of North America trade, unsuitable for open sea navigation. Hatches are more numerous than standard bulk carriers, and much wider than they are long.
	Bulk dry	A21A2BV	Bulk carrier (with vehicle decks)	A bulk carrier with movable decks for the additional carriage of new vehicles.
	Bulk dry/oil	A22A2BB	Bulk/oil carrier (OBO)	A bulk carrier arranged for the alternative (but not simultaneous) carriage of crude oil.
	Bulk dry/oil	A22B2BR	Ore/oil carrier	An ore carrier arranged for the alternative (but not simultaneous) carriage of crude oil.
	Bulk dry/oil	A22A2BP	Ore/bulk/products carrier	A bulk carrier arranged for the alternative (but not simultaneous) carriage of oil products.
	Self-discharging bulk dry	A23A2BK	Bulk cargo carrier, self-discharging, laker	A Great Lakes bulk carrier fitted with a conveyor belt (or similar system) and a boom which can discharge cargo alongside or to shore without the assistance of any external equipment.
	Other bulk dry	A24H2BZ	Powder carrier	A single deck cargo vessel for the carriage of fine powders such as fly ash. There are no weather deck hatches.
	Other bulk dry	A24G2BS	Refined sugar carrier	A single deck cargo vessel for the carriage of refined sugar. Sugar is loaded in bulk and bagged in transit (BIBO – Bulk In – Bag Out).
.2 Gas carrier	Liquefied gas	A11B2TH	LPG/chemical tanker	An LPG tanker additionally capable of the carriage of chemical products as defined in the International Bulk Chemical Code.
.3 Tanker	Oil	A13A2TS	Shuttle tanker	A tanker for the bulk carriage of crude oil specifically for operation between offshore terminals and refineries. Is typically fitted with bow loading facilities.
.4 Containership	Container	A33B2CP	Passenger/containership	A containership with accommodation for the carriage of more than 12 passengers.

.5 General cargo ship	General cargo	A31A2GO	Open hatch cargo ship	A large single deck cargo vessel with full width hatches and boxed holds for the carriage of unitized dry cargo such as forest products and containers. Many are fitted with a gantry crane.
	General cargo	A31A2GS	General cargo/tanker (container/oil/bulk – COB ship)	A general cargo ship with reversible hatch covers; one side is flush and the other is fitted with baffles for use with liquid cargoes. Containers can be carried on the hatch covers in dry cargo mode.
	General cargo	A31A2GT	General cargo/tanker	A general cargo ship fitted with tanks for the additional carriage of liquid cargo.
	General cargo	A31C2GD	Deck cargo ship	A vessel arranged for carrying unitized cargo on deck only. Access may be by use of a ro-ro ramp.
	Passenger/general cargo	A32A2GF	General cargo/passenger ship	A general cargo ship with accommodation for the carriage of more than 12 passengers.
	Other dry cargo	A38A2GL	Livestock carrier	A cargo vessel arranged for the carriage of livestock.
	Other dry cargo	A38B2GB	Barge carrier	A cargo vessel arranged for the carriage of purpose built barges (lighters) loaded with cargo. Typically loading is by way of a gantry crane. Also known as Lighter Aboard SHip vessels (LASH).
	Other dry cargo	A38C3GH	Heavy load carrier, semi-submersible	A heavy load carrier which is semi-submersible for the float on loading/unloading of the cargoes.
	Other dry cargo	A38C3GY	Yacht carrier, semi-submersible	A semi-submersible heavy load carrier specifically arranged for the carriage of yachts.
	Other dry cargo	A38D2GN	Nuclear fuel carrier	A cargo vessel arranged to carry nuclear fuel in flasks.
	Other dry cargo	A38D2GZ	Nuclear fuel carrier (with ro-ro facility)	A nuclear fuel carrier which is loaded and unloaded by way of a ro-ro ramp.
	Other dry cargo	A38B3GB	Barge carrier, semi-submersible	A barge carrier which is semi-submersible for the float on loading/unloading of the barges.
Other dry cargo	A38C2GH	Heavy load carrier	A cargo vessel able to carry heavy and/or outsized individual cargoes. Cargo may be carried on deck or in holds and may be loaded by crane and/or ro-ro ramps.	

* * *

Appendix 2

EQUATION FOR CALCULATING THE INDEX VALUE OF REFERENCE LINE FOR LNG CARRIERS

	Direct Drive Diesel	Dual Fuel Diesel – Electronic (DFDE)	Steam Turbine
Margins	<i>Engine</i> : 10% <i>Sea</i> : 20%	<i>Engine</i> : – <i>Sea</i> : 20%	<i>Engine</i> : – <i>Sea</i> : 20%
Design Margin	$M \text{ arg in} = \frac{0.9}{1.2}$ $M \text{ arg in} = 75\%$	$M \text{ arg in} = \frac{1}{1.2}$ $M \text{ arg in} = 83\%$	$M \text{ arg in} = \frac{1}{1.2}$ $M \text{ arg in} = 83\%$
P_{ME} Formula¹	$P_{ME(i)} = 0.75 \cdot (MCR_{ME(i)} - P_{PTO(i)})$	$P_{ME(i)} = 0.83 \cdot \frac{MPP(i)}{\eta_{Electrical(i)}}$	$P_{ME(i)} = 0.83 \cdot (MCR_{ME(i)} - P_{PTO(i)})$
SFC_{ME} in g/kWh (Fuel)	190 (HFO)	175 (FBO)	285 (FBO)
P_{AE} Formula²	$P_{AE} = 0.025 \cdot \sum_{i=1}^{nME} MCR_{ME(i)} + 250 + Capacity \cdot BOR \cdot 15$	$P_{AE} = (0.025 + 0.02) \cdot \sum_{i=1}^{nME} P_{ME(i)} + 250$	$P_{AE} = 0$
Index Formulae	$3.1144 \cdot \frac{190 \cdot \sum_{i=1}^{nME} P_{ME(i)} + 215 \cdot P_{AE}}{Capacity \cdot V_{ref}}$	$2.75 \cdot \frac{175 \cdot \sum_{i=1}^{nME} P_{ME(i)} + 175 \cdot P_{AE}}{Capacity \cdot V_{ref}}$	$2.75 \cdot \frac{285 \cdot \sum_{i=1}^{nME} P_{ME(i)}}{Capacity \cdot V_{ref}}$

NOTES:

- ¹ MPP_(i) of DFDE is calculated as 66% of MCR of engines.
² BOR of Direct Drive Diesel is 0.15 (%/day).

ANNEX 15

AMENDMENTS TO THE UNIFIED INTERPRETATION TO MARPOL ANNEX VI (MEPC.1/CIRC.795)

Regulation 5 *Surveys*

Regulation 5.4.4 reads as follows:

- "4 For existing ships, the verification of the requirement to have a SEEMP on board according to regulation 22 shall take place at the first intermediate or renewal survey identified in paragraph 1 of this regulation, whichever is the first, on or after 1 January 2013."

Regulation 6 *Issue or endorsement of a Certificates*

Regulation 6.4 reads as follows:

- "4 An International Energy Efficiency Certificate for the ship shall be issued after a survey in accordance with the provisions of regulation 5.4 of this Annex to any ship of 400 gross tonnage and above before that ship may engage in voyages to ports or offshore terminals under the jurisdiction of other Parties."

Regulation 22 *Ship Energy Efficiency Management Plan (SEEMP)*

Regulation 22.1 reads as follows:

- "1 Each ship shall keep on board a ship-specific Ship Energy Efficiency Management Plan (SEEMP). This may form part of the ship's Safety Management System (SMS)."

Interpretation:

- 1 The International Energy Efficiency Certificate (IEEC) shall be issued for both new and existing ships to which chapter 4 of MARPOL Annex VI applies. Ships which are not required to keep a SEEMP on board are not required to be issued with an IECC.

...

- 6 With respect to ships required to keep on board a SEEMP, such ships exclude platforms (including FPSOs and FSUs) and drilling rigs, regardless of their propulsion, and any other ship without means of propulsion.

ANNEX 16

RESOLUTION MEPC.232(65)

Adopted on 17 May 2013

**2013 INTERIM GUIDELINES FOR DETERMINING MINIMUM PROPULSION
POWER TO MAINTAIN THE MANOEUVRABILITY OF SHIPS
IN ADVERSE CONDITIONS**

THE MARINE ENVIRONMENT PROTECTION COMMITTEE,

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

RECALLING ALSO that, at its sixty-second session, the Committee adopted, by resolution MEPC.203(62), amendments to the annex of the Protocol of 1997 to amend the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto (inclusion of regulations on energy efficiency for ships in MARPOL Annex VI),

NOTING that the amendments to MARPOL Annex VI adopted at its sixty-second session by inclusion of a new chapter 4 for regulations on energy efficiency for ships, entered into force on 1 January 2013,

NOTING ALSO that regulation 21.5 of MARPOL Annex VI, as amended, requires that the installed propulsion power shall not be less than the propulsion power needed to maintain the manoeuvrability of the ship under adverse conditions as defined in the guidelines,

RECOGNIZING that the amendments to MARPOL Annex VI requires the adoption of relevant guidelines for smooth and uniform implementation of the regulations and to provide sufficient lead time for industry to prepare,

HAVING CONSIDERED, at its sixty-fifth session, the draft *2013 Interim Guidelines for determining minimum propulsion power to maintain the manoeuvrability of ships in adverse conditions*,

1. ADOPTS the *2013 Interim Guidelines for determining minimum propulsion power to maintain the manoeuvrability of ships in adverse conditions*, as set out at annex to the present resolution;
2. INVITES Administrations to take the annexed Guidelines into account when developing and enacting national laws which give force to and implement provisions set forth in regulation 20 of MARPOL Annex VI, as amended;
3. REQUESTS the Parties to MARPOL Annex VI and other Member Governments to bring the annexed Guidelines related to the Energy Efficiency Design Index (EEDI) to the attention of shipowners, ship operators, shipbuilders, ship designers and any other interested groups;
4. AGREES to keep these Guidelines under review in light of the experience gained; and
5. REVOKES the Interim Guidelines circulated by MSC-MEPC.2/Circ.11, as from this date.

ANNEX

**2013 INTERIM GUIDELINES FOR DETERMINING MINIMUM PROPULSION
POWER TO MAINTAIN THE MANOEUVRABILITY OF SHIP
IN ADVERSE CONDITIONS**

0 Purpose

The purpose of these interim guidelines is to assist Administrations and recognized organizations in verifying that ships, complying with EEDI requirements set out in regulations on Energy Efficiency for Ships, have sufficient installed propulsion power to maintain the manoeuvrability in adverse conditions, as specified in regulation 21.5 in chapter 4 of MARPOL Annex VI.

1 Definition

1.1 "Adverse conditions" mean sea conditions with the following parameters:

Significant wave height h_s , m	Peak wave period T_P , s	Mean wind speed V_w , m/s
5.5	7.0 to 15.0	19.0

JONSWAP sea spectrum with the peak parameter of 3.3 is to be considered for coastal waters.

1.2 The following adverse condition should be applied to ships defined as the following threshold value of ship size.

Ship length, m	Significant wave height h_s , m	Peak wave period T_P , s	Mean wind speed V_w , m/s
Less than 200	4.0	7.0 to 15.0	15.7
$200 \leq L_{pp} \leq 250$	Parameters linearly interpolated depending on ship's length		
More than $L_{pp} = 250$	Refer to paragraph 1.1		

2 Applicability*

2.1 These guidelines should be applied in the case of all new ships of types as listed in table 1 of appendix required to comply with regulations on Energy Efficiency for Ships according to regulation 21 of MARPOL Annex VI.

2.2 Notwithstanding the above, these guidelines should not be applied to the ships with un-conventional propulsion system such as pod propulsion.

2.3 These guidelines are intended for ships in unrestricted navigation; for other cases, the Administration should determine appropriate guidelines, taking the operational area and relevant restrictions into account.

* These Interim Guidelines are applied to ships required to comply with regulations on Energy Efficiency for Ships according to regulation 21 of MARPOL Annex VI during Phase 0 (i.e. for those ship types as in table 1 of appendix with the size of equal or more than 20,000 DWT).

3 Assessment procedure

3.1 The assessment can be carried out at two different levels as listed below:

- .1 Minimum power lines assessment; and
- .2 Simplified assessment.

3.2 The ship should be considered to have sufficient power to maintain the manoeuvrability in adverse conditions if it fulfils one of these assessment levels.

4 Assessment level 1 – minimum power lines assessment

4.1 If the ship under consideration has installed power not less than the power defined by the minimum power line for the specific ship type, the ship should be considered to have sufficient power to maintain the manoeuvrability in adverse conditions.

4.2 The minimum power lines for the different types of ships are provided in the appendix.

5 Assessment level 2 – simplified assessment

5.1 The methodology for the simplified assessment is provided in the appendix.

5.2 If the ship under consideration fulfils the requirements as defined in the simplified assessment, the ship should be considered to have sufficient power to maintain the manoeuvrability in adverse conditions.

6 Documentation

6.1 Test documentation should include at least, but not be limited to, a:

- .1 description of the ship's main particulars;
- .2 description of the ship's relevant manoeuvring and propulsion systems;
- .3 description of the assessment level used and results; and
- .4 description of the test method(s) used with references, if applicable.

* * *

Appendix

ASSESSMENT PROCEDURES TO MAINTAIN THE MANOEUVRABILITY UNDER ADVERSE CONDITIONS, APPLICABLE DURING PHASE 0 OF THE EEDI IMPLEMENTATION

1 Scope

1.1 The procedures as described below are applicable during Phase 0 of the EEDI implementation as defined in regulation 21 of MARPOL Annex VI (see also paragraph 0 – Purpose of these interim guidelines).

2 Minimum power lines

2.1 The minimum power line values of total installed MCR, in kW, for different types of ships should be calculated as follows:

$$\text{Minimum Power Line Value} = a \times (DWT) + b$$

Where:

DWT is the deadweight of the ship in metric tons; and
a and *b* are the parameters given in table 1 for tankers, bulk carriers and combination carriers.

Table 1: Parameters *a* and *b* for determination of the minimum power line values for the different ship types

Ship Type	<i>a</i>	<i>b</i>
Bulk Carriers	0.0687	2924.4
Tankers	0.0689	3253.0
Combination Carriers	see tankers above	

The total installed MCR of all main propulsion engines should not be less than the minimum power line value, where MCR is the value specified on the EIAPP Certificate.

3 Simplified assessment

3.1 The simplified assessment procedure is based on the principle that, if the ship has sufficient installed power to move with a certain advance speed in head waves and wind, the ship will also be able to keep course in waves and wind from any other direction. The minimum ship speed of advance in head waves and wind is thus selected depending on ship design, in such a way that the fulfilment of the ship speed of advance requirements means fulfilment of course-keeping requirements. For example, ships with larger rudder areas will be able to keep course even if the engine is less powerful; similarly, ships with a larger lateral windage area will require more power to keep course than ships with a smaller windage area.

3.2 The simplification in this procedure is that only the equation of steady motion in longitudinal direction is considered; the requirements of course-keeping in wind and waves are taken into account indirectly, by adjusting the required ship speed of advance in head wind and waves.

- 3.3 The assessment procedure consists of two steps:
- .1 definition of the required advance speed in head wind and waves, ensuring course-keeping in all wave and wind directions; and
 - .2 assessment whether the installed power is sufficient to achieve the required advance speed in head wind and waves.

Definition of required ship speed of advance

3.4 The required ship advance speed through the water in head wind and waves, V_s , is set to the larger of:

- .1 minimum navigational speed, V_{nav} ; or
- .2 minimum course-keeping speed, V_{ck} .

3.5 The minimum navigational speed, V_{nav} , facilitates leaving coastal area within a sufficient time before the storm escalates, to reduce navigational risk and risk of excessive motions in waves due to unfavourable heading with respect to wind and waves. The minimum navigational speed is set to 4.0 knots.

3.6 The minimum course-keeping speed in the simplified assessment, V_{ck} , is selected to facilitate course-keeping of the ships in waves and wind from all directions. This speed is defined on the basis of the reference course-keeping speed $V_{ck, ref}$, related to ships with the rudder area A_R equal to 0.9 per cent of the submerged lateral area corrected for breadth effect, and an adjustment factor taking into account the actual rudder area:

$$V_{ck} = V_{ck, ref} - 10.0 \times (A_{R\%} - 0.9) \quad (1)$$

where V_{ck} in knots, is the minimum course-keeping speed, $V_{ck, ref}$ in knots, is the reference course-keeping speed, and $A_{R\%}$ is the actual rudder area, A_R , as percentage of the submerged lateral area of the ship corrected for breadth effect, $A_{LS, cor}$, calculated as $A_{R\%} = A_R/A_{LS, cor} \cdot 100\%$. The submerged lateral area corrected for breadth effect is calculated as $A_{LS, cor} = L_{pp} T_m (1.0 + 25.0(B_{wl}/L_{pp})^2)$, where L_{pp} is the length between perpendiculars in m, B_{wl} is the water line breadth in m and T_m is the draft a midship in m. In case of high-lift rudders or other alternative steering devices, the equivalent rudder area to the conventional rudder area is to be used.

3.7 The reference course-keeping speed $V_{ck, ref}$ for bulk carriers, tankers and combination carriers is defined, depending on the ratio A_{FW}/A_{LW} of the frontal windage area, A_{FW} , to the lateral windage area, A_{LW} , as follows:

- .1 9.0 knots for $A_{FW}/A_{LW} = 0.1$ and below and 4.0 knots for $A_{FW}/A_{LW} = 0.40$ and above; and
- .2 linearly interpolated between 0.1 and 0.4 for intermediate values of A_{FW}/A_{LW} .

Procedure of assessment of installed power

3.8 The assessment is to be performed in maximum draught conditions at the required ship speed of advance, V_s , defined above. The principle of the assessment is that the required propeller thrust, T in N, defined from the sum of bare hull resistance in calm water

R_{cw} , resistance due to appendages R_{app} , aerodynamic resistance R_{air} , and added resistance in waves R_{aw} , can be provided by the ship's propulsion system, taking into account the thrust deduction factor t :

$$T = (R_{cw} + R_{air} + R_{aw} + R_{app}) / (1 - t) \quad (2)$$

3.9 The calm-water resistance for bulk carriers, tankers and combination carriers can be calculated neglecting the wave-making resistance as $R_{cw} = (1 + k)C_F \frac{1}{2} \rho S V_s^2$, where k is the form factor, $C_F = \frac{0.075}{(\log_{10} Re - 2)^2}$ is the frictional resistance coefficient, $Re = V_s L_{pp} / \nu$ is the Reynolds number, ρ is water density in kg/m^3 , S is the wetted area of the bare hull in m^2 , V_s is the ship advance speed in m/s , and ν is the kinematic viscosity of water in m^2/s .

3.10 The form factor k should be obtained from model tests. Where model tests are not available the empirical formula below may be used:

$$k = -0.095 + 25.6 \frac{C_B}{(L_{pp}/B_{wl})^2 \sqrt{B_{wl}/T_m}} \quad (3)$$

where C_B is the block coefficient based on L_{pp} .

3.11 Aerodynamic resistance can be calculated as $R_{air} = C_{air} \frac{1}{2} \rho_a A_F V_{w,rel}^2$, where C_{air} is the aerodynamic resistance coefficient, ρ_a is the density of air in kg/m^3 , A_F is the frontal windage area of the hull and superstructure in m^2 , and $V_{w,rel}$ is the relative wind speed in m/s , defined by the adverse conditions in paragraph 1.1 of the interim guidelines, V_w , added to the ship advance speed, V_s . The coefficient C_{air} can be obtained from model tests or empirical data. If none of the above is available, the value 1.0 is to be assumed.

3.12 The added resistance in waves, R_{aw} , defined by the adverse conditions and wave spectrum in paragraph 1 of the interim guidelines, is calculated as:

$$R_{aw} = 2 \int_0^{\infty} \frac{R_{aw}(V_s, \omega)}{\zeta_a^2} S_{\zeta\zeta}(\omega) d\omega \quad (4)$$

where $R_{aw}(V_s, \omega) / \zeta_a^2$ is the quadratic transfer function of the added resistance, depending on the advance speed V_s in m/s , wave frequency ω in rad/s , the wave amplitude, ζ_a in m and the wave spectrum, $S_{\zeta\zeta}$ in m^2s . The quadratic transfer function of the added resistance can be obtained from the added resistance test in regular waves at the required ship advance speed V_s as per ITTC procedures 7.5-02 07-02.1 and 7.5-02 07-02.2, or from equivalent method verified by the Administration.

3.13 The thrust deduction factor t can be obtained either from model tests or empirical formula. Default conservative estimate is $t=0.7w$, where w is the wake fraction. Wake fraction w can be obtained from model tests or empirical formula; default conservative estimates are given in table 2.

Table 2: Recommended values for wake fraction w

Block coefficient	One propeller	Two propellers
0.5	0.14	0.15
0.6	0.23	0.17
0.7	0.29	0.19
0.8 and above	0.35	0.23

3.14 The required advance coefficient of the propeller is found from the equation:

$$T = \rho u_a^2 D_p^2 K_T(J) / J^2 \quad (5)$$

where D_p is the propeller diameter, $K_T(J)$ is the open water propeller thrust coefficient, $J = u_a / n D_p$, and $u_a = V_s(1 - w)$. J can be found from the curve of $K_T(J)/J^2$.

3.15 The required rotation rate of the propeller, n , in revolutions per second, is found from the relation:

$$n = u_a / (J D_p) \quad (6)$$

3.16 The required delivered power to the propeller at this rotation rate n , P_D in watts, is then defined from the relation:

$$P_D = 2\pi\rho n^3 D_p^5 K_Q(J) \quad (7)$$

where $K_Q(J)$ is the open water propeller torque coefficient curve. Relative rotative efficiency is assumed to be close to 1.0.

3.17 For diesel engines, the available power is limited because of the torque-speed limitation of the engine, $Q \leq Q_{\max}(n)$, where $Q_{\max}(n)$ is the maximum torque that the engine can deliver at the given propeller rotation rate n . Therefore, the required minimum installed MCR is calculated taking into account:

- .1 torque-speed limitation curve of the engine which is specified by the engine manufacturer; and
- .2 transmission efficiency η_s which is to be assumed 0.98 for aft engine and 0.97 for midship engine, unless exact measurements are available.

ANNEX 17

RESOLUTION MEPC.233(65)

Adopted on 17 May 2013

**2013 GUIDELINES FOR CALCULATION OF REFERENCE LINES FOR USE
WITH THE ENERGY EFFICIENCY DESIGN INDEX (EEDI)
FOR CRUISE PASSENGER SHIPS HAVING
NON-CONVENTIONAL PROPULSION**

THE MARINE ENVIRONMENT PROTECTION COMMITTEE,

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

RECALLING ALSO that, at its sixty-second session, the Committee adopted, by resolution MEPC.203(62), amendments to the Annex of the Protocol of 1997 to amend the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto (inclusion of regulations on energy efficiency for ships in MARPOL Annex VI),

NOTING that regulation 21 (required EEDI) of MARPOL Annex VI, as amended, requires reference lines to be established for each ship type to which regulation 21 is applicable,

HAVING CONSIDERED, at its sixty-fifth session, the draft 2013 Guidelines for calculation of reference lines for use with the Energy Efficiency Design Index (EEDI) for cruise passenger ships having non-conventional propulsion for extension of the application of the EEDI to these ship type,

1. ADOPTS the 2013 Guidelines for calculation of reference lines for use with the Energy Efficiency Design Index (EEDI) for cruise passenger ships having non-conventional propulsion, as set out at annex to the present resolution; and
2. AGREES to keep these Guidelines under review in light of the experience gained.

**2013 GUIDELINES FOR CALCULATION OF REFERENCE LINES FOR USE
WITH THE ENERGY EFFICIENCY DESIGN INDEX (EEDI)
FOR CRUISE PASSENGER SHIPS HAVING
NON-CONVENTIONAL PROPULSION**

Introduction

1 Reference lines are established for each ship type to which regulation 21 (required EEDI) of MARPOL Annex VI is applicable.

2 A reference line is defined as a curve representing an average index value fitted on a set of individual index values for a defined group of ships. One reference line will be developed for each ship type to which regulation 21 of MARPOL Annex VI is applicable, ensuring that only data from comparable ships are included in the calculation of each reference line.

3 The purpose of the EEDI is to provide a fair basis for comparison, to stimulate development of more efficient ships in general and to establish the minimum efficiency of new ships depending on ship type and size. Hence, the reference lines for each ship type must be calculated in a transparent and robust manner.

4 Ship types are defined in regulation 2 of MARPOL Annex VI. The reference line for each ship type is used for calculation of the required EEDI as defined in regulation 21 of MARPOL Annex VI.

Applicability

5 These guidelines apply to cruise passenger ships having non-conventional propulsion, including diesel-electric propulsion, turbine propulsion, and hybrid propulsion systems.

6 For other ship types, refer to the *Guidelines for calculation of reference lines for use with the Energy Efficiency Design Index (EEDI)* in resolution MEPC.215(63).

Reference line value

7 The reference line value for cruise passenger ships having non-conventional propulsion is formulated as

$$\text{Reference line value} = 170.84 \cdot b^{-0.214}$$

where b is the gross tonnage of the ship.

Calculating the reference line

8 To calculate the reference line, an index value for each cruise passenger ship having non-conventional propulsion is calculated using the following assumption:

- .1 The carbon emission factor is constant for all engines, including engines for diesel-electric and hybrid propulsion cruise passenger ships, i.e. $C_{F,ME} = C_{F,AE} = C_F = 3.1144 \text{ g CO}_2/\text{g fuel}$.

The carbon factor for hybrid propulsion ships equipped with gas turbines $C_{F,AE}$ is calculated as an average of the carbon factors of auxiliary engines (i.e. 3.1144 g CO₂/g fuel) and the carbon factor of gas turbines (i.e. 3.206 g CO₂/g fuel) weighted with their installed rated power.

- .2 $P_{ME(i)}$ is reflected as 75 % of the rated installed main power ($MCR_{ME(i)}$). Where a ship only has electric propulsion $P_{ME(i)}$ is zero (0).
- .3 The specific fuel consumption for all ship types, including diesel-electric and hybrid propulsion cruise passenger ships, is constant for all auxiliary engines, i.e. $SFC_{AE}=215\text{g/kWh}$.

The specific fuel consumption for hybrid propulsion cruise passenger ships equipped with gas turbines SFC_{AE} is calculated as an average of the specific fuel oil consumption of the auxiliary engines (i.e. 215 g/kWh) and the specific fuel oil consumption of the gas turbines (i.e. 250 g/kWh) weighted according to their installed rated power.

- .4 P_{AE} is calculated according to paragraph 2.5.6.3 of the 2012 *Guidelines on the Method of Calculation of the Attained Energy Efficiency Design Index (EEDI) for new ships* (resolution MEPC.212(63)) considering a given average efficiency of generator(s) weighted by power of 0.95.
- .5 Innovative mechanical energy efficiency technology, shaft generators and other innovative energy efficient technologies are all excluded from the reference line calculation, i.e. $P_{AE,eff} = 0$ and $P_{eff} = 0$.
- .6 $P_{PTI(i)}$ is 75% of the rated power consumption of each shaft motor divided by a given efficiency of generators of 0.95 and divided by a given propulsion chain efficiency of 0.92.

9 The equation for calculating the index value for cruise passenger ships having non-conventional propulsion is as follows:

$$\text{Estimated Index Value} = \frac{3.1144 \cdot 190 \cdot \sum_{i=1}^{n_{ME}} P_{ME(i)} + C_{F,AE} \cdot SFC_{AE} \cdot (P_{AE} + \sum_{i=1}^{n_{PTI}} P_{PTI(i)})}{\text{Gross tonnage} \cdot V_{ref}}$$

ANNEX 18

RESOLUTION MEPC.234(65)

Adopted on 17 May 2013

**AMENDMENTS TO THE 2012 GUIDELINES ON SURVEY AND CERTIFICATION
OF THE ENERGY EFFICIENCY DESIGN INDEX (EEDI)
(RESOLUTION MEPC.214(63)), AS AMENDED**

THE MARINE ENVIRONMENT PROTECTION COMMITTEE,

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

RECALLING ALSO that, at its sixty-second session, the Committee adopted, by resolution MEPC.203(62), amendments to the Annex of the Protocol of 1997 to amend the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto (inclusion of regulations on energy efficiency for ships in MARPOL Annex VI),

NOTING the amendments to MARPOL Annex VI adopted at its sixty-second session by inclusion of a new chapter 4 for regulations on energy efficiency for ships entered into force on 1 January 2013,

NOTING ALSO that regulation 5 (Surveys) of MARPOL Annex VI, as amended, requires ships to which chapter 4 applies shall also be subject to survey and certification taking into account guidelines developed by the Organization,

NOTING FURTHER that the *2012 Guidelines on survey and certification of the Energy Efficiency Design Index (EEDI)* were adopted at its sixty-third session,

RECOGNIZING that the amendments to MARPOL Annex VI requires the adoption of relevant guidelines for smooth and uniform implementation of the regulations and to provide sufficient lead time for industry to prepare,

HAVING CONSIDERED, at its sixty-fifth session, draft amendments to the *2012 Guidelines on survey and certification of the Energy Efficiency Design Index (EEDI)*,

1. ADOPTS the amendments to the *2012 Guidelines on survey and certification of the Energy Efficiency Design Index (EEDI)*, as set out in the annex to the present resolution;
2. INVITES Administrations to take the annexed Guidelines into account when developing and enacting national laws which give force to and implement provisions set forth in regulation 5 of MARPOL Annex VI, as amended;
3. REQUESTS the Parties to MARPOL Annex VI and other Member Governments to bring the annexed *Guidelines on survey and certification of the Energy Efficiency Design Index (EEDI)* to the attention of masters, seafarers, shipowners, ship operators and any other interested groups;
4. AGREES to keep these Guidelines under review in light of the experience gained.

**AMENDMENTS TO GUIDELINES ON SURVEY AND CERTIFICATION OF
THE ENERGY EFFICIENCY DESIGN INDEX (EEDI)
(RESOLUTION MEPC.214(63)), AS AMENDED**

Paragraphs 4.3.5, 4.3.6 and 4.3.8 are amended as follows:

"4.3.5 Sea conditions should be measured in accordance with ITTC Recommended Procedure 7.5-04-01-01.1 Speed and Power Trials, part 1; 2012 revision 1 or ISO 15016:2002*.

4.3.6 Ship speed should be measured in accordance with ITTC Recommended Procedure 7.5-04-01-01 Speed and Power Trials, part 1; 2012 revision 1 or ISO 15016:2002*, and at more than two points of which range includes the power of the main engine as specified in paragraph 2.5 of the EEDI Calculation Guidelines.

4.3.8 The submitter should develop power curves based on the measured ship speed and the measured output of the main engine at sea trial. For the development of the power curves, the submitter should calibrate the measured ship speed, if necessary, by taking into account the effects of wind, tide, waves, shallow water and displacement in accordance with ITTC Recommended Procedure 7.5-04-01-01.2 Speed and Power Trials, part 2; 2012 revision 1 or ISO 15016:2002*. Upon agreement with the shipowner, the submitter should submit a report on the speed trials including details of the power curve development to the verifier for verification."

(Annexes 19 to 48 are contained in documents MEPC 65/22/Add.1 and Add.2)

* ITTC Recommended Procedure 7.5-04-01-01 is considered as preferable standard available from URL at ITTC.SNAME.ORG. Revised version of ISO 15016 should be available by early 2014.