



SUB-COMMITTEE ON BULK LIQUIDS
AND GASES
11th session
Agenda item 16

BLG 11/16
11 May 2007
Original: ENGLISH

**REPORT TO THE MARITIME SAFETY COMMITTEE
AND THE MARINE ENVIRONMENT PROTECTION COMMITTEE**

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1 GENERAL

1.1 The Sub-Committee on Bulk Liquids and Gases held its eleventh session from 16 to 20 April 2007 under the chairmanship of Mr. Z. Alam (Singapore). The Vice-Chairman, Mr. S. Oftedal (Norway), was also present.

1.2 The session was attended by delegations from the following Member Governments:

ALGERIA	LIBERIA
ANGOLA	MALAYSIA
ARGENTINA	MALTA
AUSTRALIA	MARSHALL ISLANDS
BAHAMAS	MEXICO
BELGIUM	MOROCCO
BOLIVIA	NETHERLANDS
BRAZIL	NEW ZEALAND
CANADA	NIGERIA
CHILE	NORWAY
CHINA	PANAMA
COLOMBIA	PAPUA NEW GUINEA
CUBA	PERU
CYPRUS	POLAND
DENMARK	PORTUGAL
DOMINICAN REPUBLIC	REPUBLIC OF KOREA
ECUADOR	ROMANIA
EGYPT	RUSSIAN FEDERATION
ESTONIA	SAUDI ARABIA
FINLAND	SINGAPORE
FRANCE	SLOVENIA
GERMANY	SPAIN
GREECE	SWEDEN
INDONESIA	SYRIAN ARAB REPUBLIC
IRAN (ISLAMIC REPUBLIC OF)	TURKEY
IRELAND	TUVALU
ISRAEL	UNITED KINGDOM
ITALY	UNITED STATES
JAPAN	URUGUAY
LATVIA	VANUATU
LEBANON	VENEZUELA

the following Associate Member of IMO:

HONG KONG, CHINA

and the following State not Member of IMO:

COOK ISLANDS

by observers from the following intergovernmental organizations:

EUROPEAN COMMISSION (EC)
INTERNATIONAL COUNCIL FOR THE EXPLORATION OF THE SEA (ICES)

and observers from the following non-governmental organizations:

INTERNATIONAL CHAMBER OF SHIPPING (ICS)
INTERNATIONAL UNION OF MARINE INSURANCE (IUMI)
INTERNATIONAL CONFEDERATION OF FREE TRADE UNIONS (ICFTU)
INTERNATIONAL ASSOCIATION OF PORTS AND HARBORS (IAPH)
BIMCO
INTERNATIONAL ASSOCIATION OF CLASSIFICATION SOCIETIES (IACS)
EUROPEAN CHEMICAL INDUSTRY COUNCIL (CEFIC)
OIL COMPANIES INTERNATIONAL MARINE FORUM (OCIMF)
INTERNATIONAL MARITIME PILOTS' ASSOCIATION (IMPA)
FRIENDS OF THE EARTH INTERNATIONAL (FOEI)
INTERNATIONAL ASSOCIATION OF INSTITUTES OF NAVIGATION (IAIN)
INTERNATIONAL FEDERATION OF SHIPMASTERS' ASSOCIATIONS (IFSMA)
COMMUNITY OF EUROPEAN SHIPYARDS' ASSOCIATIONS (CESA)
INTERNATIONAL ASSOCIATION OF INDEPENDENT TANKER OWNERS
(INTERTANKO)
THE WORLD CONSERVATION UNION (IUCN)
SOCIETY OF INTERNATIONAL GAS TANKER AND TERMINAL OPERATORS
LIMITED (SIGTTO)
DANGEROUS GOODS ADVISORY COUNCIL (DGAC)
CRUISE LINES INTERNATIONAL ASSOCIATION (CLIA)
(Previously known as the International Council of Cruise Lines (ICCL))
INTERNATIONAL ASSOCIATION OF DRY CARGO SHIPOWNERS
(INTERCARGO)
ASSOCIATION OF EUROPEAN MANUFACTURERS OF INTERNAL
COMBUSTION ENGINES (EUROMOT)
INTERNATIONAL PETROLEUM INDUSTRY ENVIRONMENTAL
CONSERVATION ASSOCIATION (IPIECA)
THE INSTITUTE OF MARINE ENGINEERING, SCIENCE AND TECHNOLOGY
(IMarEST) (Previously known as the Institute of Marine Engineers (IME))
INTERNATIONAL PARCEL TANKERS ASSOCIATION (IPTA)
THE INTERNATIONAL MARINE CONTRACTORS ASSOCIATION (IMCA)
INTERNATIONAL BUNKER INDUSTRY ASSOCIATION (IBIA)

Opening address

1.3 In welcoming the participants, the Secretary-General emphasized that holding this session of the Sub-Committee at the Royal Horticultural Halls was, indeed, a challenge while the Headquarters building was undergoing refurbishment and, having appreciated the understanding, co-operation and efforts of IMO staff and having assured the Sub-Committee that the Secretariat would do its best in providing all services needed, wished the meeting to be both successful and enjoyable.

Referring to this year's theme for World Maritime Day: "IMO's response to current environmental challenges", the Secretary-General pointed out that this theme provided an

opportunity to show that the maritime sector did care about the environment and was, indeed, at the forefront of this challenge. In this context, he emphasized that IMO had adopted a wide range of measures to prevent and control any pollution caused by ships which were all positive proof of the firm determination of Governments and the industry to reduce to the barest minimum the impact that shipping might have on the fragile environment.

Among the many important issues before the Sub-Committee during BLG 11, the Secretary-General singled out the review of MARPOL Annex VI and the NO_x Technical Code, which presented an excellent opportunity both for IMO and the maritime community as a whole to show that they take the prevention and minimization of air pollution from ships very seriously and are doing so responsibly and in full knowledge of its impact on the environment. However, having acknowledged that sea transport is one of the most energy-efficient ways to move cargo in quantities by far surpassing those of any other means of transportation, he could not, at the same time, disregard that, as estimated, shipping releases nitrogen and sulphur emissions from petroleum burning at quantities higher than was previously thought; and also that such emissions may have travelled further inland than had so far been realized. To the credit of the parties concerned, land-based sources of air pollution had, through extensive regulation, been satisfactorily tackled and the Secretary-General believed that shipping, should not be left behind. Member States should, therefore, redouble their efforts to stem the effects of ship emissions on air quality anywhere in the world, as well as the adverse impact of particulate matter on human health.

He emphasized that in order to avoid unilateral or regional action, and to maintain, even enhance, the globally-acknowledged status of MARPOL and the primacy of IMO as shipping's global regulator and the custodian of the Convention, the Organization should, through the revision of Annex VI, pursue a long-term strategy on the prevention and minimization of harmful emissions from ships in a comprehensive manner, involving Governments, the shipping industry, environmental interests, engine manufacturers, oil producers, scientists and all other relevant interests, so that all of the parameters of the issue would be taken into account when decisions were made and implemented at the appropriate time and all stakeholders were afforded the needed predictability and adequate time to adapt.

Referring to the Sub-Committee's work on application of requirements for the carriage of biofuels and biofuel blends, the Secretary-General observed that, as these products are shipped in increasing quantities worldwide, it was, therefore, essential that clear and comprehensive guidance was prepared, as soon as possible, on the requirements pertaining to their carriage in bulk by sea.

While noting the progress in the development of guidelines for the uniform implementation of the 2004 Ballast Water Management Convention, the Secretary-General urged the Member States once again, to exert whatever influence they could back home to have the BWM Convention ratified without further delay.

He also noted with satisfaction the progress made on the development of draft Interim Guidelines on safety for gas-fuelled engine installations in ships and understood that, once finalized, the Guidelines would serve as a basis for the development of an International Code for Gas-fuelled Engine Installations in Ships. Noting that, as the use of gas-fuelled engines could lead to reduced emissions of harmful gases into the atmosphere, he was of the view that the Sub-Committee's work to advance the issue would certainly reflect positively on the Organization's undeniable commitment to a cleaner environment.

In concluding, the Secretary-General, on the issue of security, stressed that there should be no complacency about security at any of the various venues where IMO meetings were scheduled to be held during the refurbishment period and appealed to all to abide by the security rules in place and, in particular, circular letter No.2692 and any other *ad hoc* measures that may be necessary; and, with regard to the implementation of the Voluntary IMO Member State Audit Scheme in accordance with resolution A.974(24), updated the Sub-Committee on the audits conducted so far, and requested the support and co-operation of all Member States to the wide and effective implementation of the Scheme.

Chairman's remarks

1.4 The Chairman, in thanking the Secretary-General, stated that his words and advice would be given every consideration in the deliberation of the Sub-Committee and its working groups.

Adoption of the agenda

1.5 The Sub-Committee adopted the agenda (BLG 11/1/Rev.1) and agreed, in general, to be guided in its work by the annotations contained in document BLG 11/1/1, also taking into account document BLG 11/1/2 concerning the arrangements for the session. The agenda, as adopted, together with the list of documents considered under each agenda item, is set out in document BLG 11/INF.6.

Capsizing of the anchor handling vessel "Bourbon Dolphin"

1.6 The delegation of Norway informed the Sub-Committee that the capsizing of the Norwegian anchor handling vessel **Bourbon Dolphin** on Thursday, 12 April 2007, resulted in the loss of eight lives and had caused great grief to the people of Norway. The delegation invited the Sub-Committee to note that the Director General of the Norwegian Maritime Administration had requested for an investigation to be carried out to find out the reason for the tragedy which included a study of the construction and certification process during the course of building the ship, and that the results of that study would be submitted to the Organization in due course. The delegation thanked the rescue team from the United Kingdom for the quick response which resulted in the saving of a number of lives.

1.7 The Sub-Committee expressed its sympathy on the loss of lives as a result of the capsizing of handling vessel **Bourbon Dolphin** and requested the delegation of Norway to convey them to the families, friends and colleagues of those who lost their lives in the accident.

2 DECISIONS OF OTHER IMO BODIES

2.1 The Sub-Committee noted the decisions taken by MSC 81, MEPC 55, MSC 82, FSI 14 and DSC 11 (BLG 11/2, BLG 11/2/1, BLG 11/2/2 and BLG 11/2/3) and other sub-committees relevant to the work of the Sub-Committee and took them into account in its deliberations when dealing with relevant agenda items.

3 EVALUATION OF SAFETY AND POLLUTION HAZARDS OF CHEMICALS AND PREPARATIONS OF CONSEQUENTIAL AMENDMENTS

3.1 The Sub-Committee recalled that this part of the agenda traditionally contains routine classification tasks which are normally put directly to the ESPH Working Group prior to further consideration by the Sub-Committee. Notwithstanding this observation, it was recognized that

the Sub-Committee always considers the report of the intersessional meeting of the ESPH Working Group and any documents containing matters of principle for which discussions in plenary are necessary.

3.2 The Sub-Committee thanked the ESPH Working Group and its Chairman, Mrs. M.C. Tiemens-Idzinga (Netherlands), for the considerable amount of work that had been carried out at its last intersessional meeting (ESPH 12).

Action taken by the Sub-Committee

3.3 In considering the report of the twelfth intersessional meeting of the ESPH Working Group (BLG 11/3), the Sub-Committee approved the report in general and took action as indicated hereunder:

- .1 noted the results of the work on the evaluation of cleaning additives and, in particular, that forty-four cleaning additives had been evaluated, twenty-seven of which were approved for inclusion in the list of cleaning additives meeting the requirements of paragraph 1.8.2 of the Procedures and Arrangements Standards;
- .2 agreed that where specific entries for products exist in the IBC Code, these should be used in preference to generic entries when appropriate. While recognizing that action item 3 in document BLG 11/3 had been developed with vegetable oil fatty acids in mind, the Sub-Committee further agreed that such a decision should apply to all products in the IBC Code. In this context, the Sub-Committee tasked the ESPH Working Group to develop a BLG circular drawing the attention of all users of the Code to this decision.
- .3 agreed not to introduce CAS numbers against the entries in chapter 19 of the IBC Code, noting that the GESAMP/EHS Working Group had begun registering such numbers in the Composite List of GESAMP/EHS Hazard Profiles of substances it evaluates;
- .4 agreed with the proposed administrative procedures to follow for the submission of data to the GESAMP/EHS and BLG/ESPH Working Groups, which was in line with the principles laid down in MEPC.1/Circ.512 (section 8) for submission of data to IMO and the GESAMP/EHS Working Group;
- .5 endorsed the view of the Group that there is a compelling need to carry out a re-evaluation of the cleaning additives currently in the MEPC.2/Circular despite earlier decisions not to do so;
- .6 recalled that MSC 81 had approved the holding of the twelfth session of the ESPH Working Group (ESPH 12) in September 2006 and had concurred with BLG 10's proposal regarding the items which needed to be directly reported to MEPC 55 and MSC 82 by ESPH 12, so that they could be taken into account for the adoption of the revised IBC Code. In this regard, the Sub-Committee noted the action taken on these items by both Committees, as indicated in paragraph 10.85 and paragraph 9.13 of documents MEPC 55/23 and MSC 82/9/2 respectively.

In this context, following the clarification of the Netherlands of its intervention at MSC 82, given under agenda item 2, the Sub-Committee instructed the Working

Group to review chapter 19 for editorial changes with a view that it is in good order to be adopted by MEPC 56 along with chapters 17 and 18 of the IBC Code.

IACS pointed out certain anomalies that may exist between the classification of products in chapters 17 and 18 in the hard copy 2007 edition of the IBC Code and the classifications contained in the relevant resolutions and circulars, and the possibility that a ship is given a deficiency or a detention by port State control for having an incorrect certificate and therefore non-compliance with the Code, should anomalies exist.

Whilst thanking IACS for bringing this matter to its attention, the Sub-Committee noted that dealing with anomalies in the adopted text of the amended IBC Code was a matter for consideration by the parent Committees and that IACS' presentation to the Committees should follow the guidelines and work methodology of the Organization. However, the Sub-Committee recognized that if anomalies exist between the published text and the adopted text, it would be appropriate for interested delegations to make a proposal incorporating all identified anomalies and the proposed corrections for consideration by the ESPH Working Group in order that corrigenda could be prepared for approval by the Sub-Committee and subsequent publication by the Secretariat. The Secretariat clarified that in the event of a discrepancy between the authentic text of an instrument and the published version of it, the provisions in the authentic text prevailed.

- .7 approved the future work programme of the ESPH Working Group, noting the additional tasks given to the Group during discussion of items relevant to the work of the Group.

Publishing of Tripartite Agreements

3.4 The Sub-Committee considered the proposal by IPTA (BLG 11/3/3) that a list of provisional tripartite agreements should be posted on the IMO website prior to issuance of the updated MEPC.2/Circular, noting that this proposal was also supported by INTERTANKO (BLG 11/3/8).

3.5 The Sub-Committee agreed, in principle, that this would be a simple way of keeping stakeholders updated on products awaiting inclusion in the MEPC.2/Circ. and instructed the Working Group to consider the practical implications associated with the proposal and report back to the Sub-Committee with a detailed proposal. One delegation highlighted that, before a decision is taken to put the list on either IMO's public domain website or to use the GISIS platform, it might be useful to have a consequence analysis of the two options.

Interpretation of ratings of the revised GESAMP Hazard Profiles

3.6 The Sub-Committee noted the information provided in document BLG 11/3/2 regarding decisions taken on interpretation of the ratings of the revised GESAMP Hazard Profiles and other related decisions taken on the categorization and classification of products and agreed that this information should be made available when necessary in the future to assist the Working Group in their deliberations. In this regard, the Sub-Committee instructed the Working Group to review the information set out at annex to document BLG 11/3/2 and complete this information as necessary.

Funding Arrangements for the GESAMP/EHS Working Group

3.7 The Sub-Committee recalled that MEPC 54 had considered the issue of finding a long-term funding solution to support the work of the GESAMP/EHS Working Group and it had suggested that any solution should involve those cargo interests, namely manufacturers of the chemical products which directly benefit from the work carried out by the GESAMP/EHS Working Group on the basis of the “owner pays principle”.

3.8 The Sub-Committee also recalled that MEPC 55 had instructed the Secretariat to develop draft proposals for review and finalization by BLG 11 for consideration by MEPC 56.

3.9 In considering document BLG 11/3/1, the Sub-Committee reiterated that the work that these specialists carry out is extremely valuable and fundamental to the assignment of Pollution Category, Ship Type and carriage requirements under MARPOL Annex II and the IBC Code.

3.10 The Sub-Committee noted that the GESAMP/EHS Working Group had not only been established for the purpose of hazard evaluation but also to carry out scientific work on behalf of the Organization.

3.11 The Sub-Committee noted that under the current arrangement, members of the GESAMP/EHS Working Group offer their services free of charge and all other costs, including travel and accommodation expenses are borne in accordance with the UN standards by the Organization through its regular budget. In the event that this solution becomes unsustainable resulting in insufficient members with appropriate expertise to maintain the work of the Group under these conditions of engagement, the safe carriage of bulk chemicals will be put at risk.

3.12 This being the case, the Sub-Committee was of the opinion that it would seem not unreasonable to expect a contribution to be made by those who would benefit most from the service, i.e. the industry that produces the products in question and needs to have them evaluated in order to be able to ship them.

3.13 With this in mind, the Sub-Committee considered three possible scenarios:

- .1 for the Organization to continue to provide all the funding from its regular budget;
- .2 for the costs to be split between the Organization and industry; or
- .3 for industry to bear the entire cost.

3.14 The majority of delegates agreed that it was inappropriate for the Organization to continue to bear the costs of these meetings and considered that the most practical solution was for either the costs to be split between the Organization and those cargo interests submitting products for evaluation, on the basis of a cost-sharing scheme, or for a scheme to be set up whereby all costs are borne by the applicants.

3.15 The observers from CEFIC and DGAC expressed a number of concerns on the introduction of a fee-based scheme for such services, and, while recognizing some of the concerns related to self-classification, suggested that a government approved training scheme could be created to train interested parties in the classification scheme under the IBC Code with the intention of allowing self-classification for those individuals who have passed the appropriate test.

3.16 After extensive discussion, the Working Group was instructed to consider options 2 and 3, as outlined in document BLG 11/3/1, and provide feedback to the Sub-Committee on the practical implications of implementing either scheme for long-term funding of the GESAMP/EHS Working Group.

Safety Data Sheets for MARPOL Annex II Cargoes

3.17 The Sub-Committee took note of the information provided by the United Kingdom on the amendment to annex 4, guidance on the Preparation of Safety Data Sheets (SDS), of the Globally Harmonized system of Classification and Labelling of Chemicals (GHS) to enhance safety and hazard communication when transporting MARPOL Annex II cargoes (BLG 11/3/7). The Sub-Committee expressed its appreciation to the United Kingdom for taking the initiative, and requested delegations to disseminate this information to chemical companies and manufacturers to ensure that SDSs are updated to include a reference to the IBC Code listed product if it is to be carried in bulk.

Proposals for the inclusion of New Products in the IBC Code

3.18 The Sub-Committee noted the proposal by Malaysia (BLG 11/9/4) for the inclusion of Palm Kernel Fatty Acid Distillate (PKFAD) in the IBC Code as well as the proposals by Sweden for the carriage requirements in the IBC Code in respect of Tall Oil Crude (BLG 11/3/5) and Tall Oil Pitch (BLG 11/3/6) to be amended.

3.19 The Sub-Committee tasked the ESPH Working Group to carry out the evaluations since it was recognized that the evaluation of new products is a routine task of the Group which is normally put directly to the Group prior to further consideration by the Sub-Committee.

Associated Issues

3.20 The Sub-Committee agreed to consider agenda item 10 before establishing the ESPH Working Group, since this item was of interest to many members of the Working Group.

3.21 It was further agreed that the document by IACS (BLG 11/14/1), concerning the application of regulation 4.1.3 of MARPOL Annex II to ships carrying unmodified oils and fats, should also be considered prior to the establishment of the Working Group.

3.22 Whilst noting the observance by IACS members on the non-conformity, to some degree, in the application of regulation 4.1.3 of MARPOL Annex II, the Sub-Committee agreed that deliberating such an issue was not in accordance with the Committees' Guidelines. It therefore acknowledged that such issues were a matter for the MEPC and therefore encouraged one or more Parties to the Convention to submit details of such non-conformities to MEPC 56 for its consideration as appropriate.

Establishment of the Working Group

3.23 Recognizing the necessity to make progress on the above issues, the Sub-Committee established the Working Group on Evaluation of Safety and Pollution Hazards of Chemicals and instructed it, taking into account the comments and decisions made in plenary, to:

- .1 conduct an evaluation of new products;
- .2 conduct an evaluation of cleaning additives;

- .3 review MEPC.2/Circular – Provisional classification of liquid substance transported in bulk, in particular giving consideration to the proposal for provisional tripartite agreements to be posted on the IMO website as outlined in document BLG 11/3/3 and supported by document BLG 11/3/8;
- .4 consider the guidance note and reporting form on cleaning additives (MEPC/Circ.363) as a consequence of the revised MARPOL Annex II and propose an approach for the re-evaluation of cleaning guidelines in the interim period until such time that the revised guidelines are approved by MEPC;
- .5 on the basis of option 2 and option 3, as outlined in BLG 11/3/1, provide feedback to the Sub-Committee on the practical implications of implementing such a scheme for long-term funding of the GESAMP/EHS Working Group;
- .6 review and complete as necessary the information set out at annex to document BLG 11/3/2 on the interpretation of ratings of the GESAMP Hazard Profiles for classification purposes;
- .7 using document BLG 11/10 give preliminary consideration to the application of requirements for the carriage of bio-fuels and bio-fuel blends with a view to conducting in-depth discussions at ESPH 13;
- .8 review chapter 19 of the IBC Code in view of the discussion made at MSC 82;
- .9 prepare a BLG circular to reflect the decision that where specific entries for products exist in the IBC Code, these should be used in preference to generic entries where appropriate;
- .10 prepare the work programme and agenda for ESPH 13; and
- .11 submit a report to plenary on Thursday, 19 April 2007.

Report of the Working Group

3.24 Having received and considered the report of the Working Group (BLG 11/WP.3), the Sub-Committee approved the report in general and took action as indicated hereunder:

- .1 agreed to the classification and carriage requirements of the three new products submitted;
- .2 concurred with the view of the Group not to include the amended classifications for the entries, Tall Oil, Crude and Tall Oil Pitch in List 1 of the MEPC.2/Circular but to keep the results of the re-classification in abeyance until the next package of amendments are adopted;
- .3 agreed to defer the evaluation of cleaning additives submitted at this session to the intersessional meeting of the ESPH Working Group later this year;
- .4 agreed that for the time being, the information on provisional assessments should be made available on the IMO's public domain website and agree to request

- MEPC to consider adding a new module to the GISIS database for tripartite agreements;
- .5 concurred with observation of the Group that provisional assessments on the basis of simplified tripartite agreements do not need to be reconfirmed by other Parties involved;
 - .6 agreed to the draft revised guidance note and reporting form on cleaning additives for approval at MEPC 56 set out at annex 1;
 - .7 concurred with the view of the Group, that cleaning additives submitted at the intersessional meeting of the ESPH Working Group later this year and those submitted for BLG 11 should be re-submitted based on the revised guidelines finalized at this session;
 - .8 agreed to add the re-evaluation of the cleaning additives as a new future programme item for the ESPH Working Group and in this context, further agree that the current information in annex 10 of the MEPC.2/Circular will cease to be valid 3 years after the date of adoption of the revised guidelines, i.e. 2010;
 - .9 agreed with the observations made by the Group regarding long-term funding for the work of the GESAMP/EHS Working Group which may implicitly eliminate Option 3. A number of delegations could not agree with the report of the Group and supported Option 3 on the basis that the applicant should pay and there be no cost to the Organization. The delegation of the United States pointed out that discussions on fees being charged to cargo interests when considering the long-term funding of the GESAMP/EHS Working Group could be considered as a tax on United States persons. A provision of the United States law mandates the withholding of voluntary contributions to the United Nations in the event that the United Nations imposes a tax on United States persons;
 - .10 endorsed the view of the Group that a renewable subscription fee would have an optimum period of 5 years for entries in List 2;
 - .11 concurred with the view of the Group that no work was needed on the deletion of specific synonyms in chapter 19;
 - .12 agreed that the in-depth review of the anomalies in chapter 19 needs specialized expertise;
 - .13 agreed to place the revision of chapter 19 on the work programme of the ESPH Working Group with a target completion date of 2009 and to urge delegations to make available the necessary expertise;
 - .14 approved the future work programme for the intersessional meeting in October 2007; and
 - .15 agreed to request MSC 83 and MEPC 56 for an intersessional meeting of the ESPH Working Group in 2008.

4 DEVELOPMENT OF GUIDELINES FOR UNIFORM IMPLEMENTATION OF THE 2004 BWM CONVENTION

4.1 The Sub-Committee recalled that since 31 May 2005 the International Convention for the Control and Management of Ships' Ballast Water and Sediments (Ballast Water Management Convention) had been open for accession by any State. Two more States (Kiribati and Norway) have ratified the Convention since the last BLG session, which brought the number of Contracting Governments to seven representing 3.21% of the world merchant fleet tonnage.

4.2 The Sub-Committee noted that MEPC 55 had adopted five Guidelines relating to ballast water management (i.e., Guidelines for sediment reception facilities (G1), Guidelines for ballast water reception facilities (G5), Guidelines for ballast water exchange design and construction standards (G11), Guidelines on design and construction to facilitate sediment control on ships (G12), and Guidelines on designation of areas for ballast water exchange (G14)). The Sub-Committee also noted that in accordance with the updated programme for the development of the ballast water management guidelines approved by MEPC 53, 11 sets of Guidelines had been developed and adopted.

4.3 The Sub-Committee agreed that documents related to the development of Guidelines for uniform implementation of the BWM Convention and those forwarded from MEPC 55 which will be referred to the Ballast Water Working Group for consideration did not need to be introduced in the plenary.

Availability of ballast water treatment technology and relevant information

4.4 The Sub-Committee recalled that MEPC 55 established a Review Group to determine whether appropriate technologies were available to achieve the ballast water performance standard required under regulation D-2 of the BWM Convention. MEPC 55 noted the conclusions of the Ballast Water Review Group, that type approved ballast water management systems would probably be available for installation prior to the first application date of the BWM Convention. MEPC 55 noted, however, that the installation of type approved ballast water management systems on ships already contracted to be constructed in or after 2009 may not be feasible or only possible at excessive cost and/or delay in delivery. MEPC 55 noted further that to address the concerns related to the availability of appropriate technologies by the first application date of the D-2 standard, the Ballast Water Review Group considered two options: (1) to expedite the process of amending the BWM Convention in order to delay the first date for the application of regulation D-2 by using a procedure similar to the one used to amend MARPOL Annex IV; and (2) to develop an exemption procedure for the first set of vessels applying the Convention.

4.5 The Sub-Committee recalled further that MEPC 55 requested the Legal Office of the Organization to provide legal opinions on the two options identified by the Ballast Water Review Group to minimize the negative consequences caused by the possible delay in the development of type approved ballast water management systems and advise of other possible options to address the concerns of the Group. MEPC 55 agreed to request BLG 11 to consider the legal opinions and subsequently report to MEPC 56.

4.6 The Sub-Committee considered the documents BLG 11/4/3 (Secretariat) on legal opinion on certain issues concerning the BWM Convention and BLG 11/4/14 (ICS) suggesting the adoption of an MEPC resolution calling on States not to enforce the first application date of D-2 standard for a limited period of time.

4.7 The Sub-Committee noted that the Legal Office had reviewed the two options identified by the Ballast Water Review Group and concluded that they were not viable for a number of reasons as illustrated in paragraphs 6 to 13 of document BLG 11/4/3. The Sub-Committee also noted that, in the view of the Legal Office, the preferred and most appropriate option to address the situation created by the uncertain availability of ballast water treatment technologies by first application date of the D-2 standard is the adoption of a Protocol to BWM Convention. The Sub-Committee further noted that the Legal Office was of the view that if Members are not supportive of such a Protocol, which implies a second diplomatic Conference and which should only be considered as a last resort, the following options might be available to address the concern expressed at MEPC 55:

- .1 common interpretation and uniform guidance on the linkage between the D-5 review and the application of the D-2 standard;
- .2 common reservation or declaration by States which ratify the Convention; or
- .3 an MEPC resolution calling on States not to enforce the first compliance date.

4.8 The Sub-Committee noted with appreciation the information provided in document BLG 11/4/6 (IACS) on the estimate number of ships in the first category to which the BWM Convention may apply and document BLG 11/4/8 (Republic of Korea) on the description of the testing facility used by the country and on the availability of testing slots. The Sub-Committee encouraged Member States to provide relevant information on their testing facilities or other related aspects to MEPC 56 and, having noted that certain parts of the proposal by IACS (BLG 11/4/6) had merit, invited MEPC 56 to take them into account when considering issues relevant to this agenda item.

4.9 Norway, supported by a large number of countries, expressed the view that an MEPC resolution as described in option 3 of the Legal Office could address the concern regarding the delay in the development of type approved ballast water management system and most of the delegation spoke in favour of urgent action to avoid further delay which could lead to unilateral regulations. Some delegations expressed their view in favour of a protocol.

4.10 The Head of the Legal Office of IMO referred to the different features involved in the adoption of a resolution. In response to questions from delegations, he noted as follows:

- an MEPC resolution would not contravene the Vienna Convention on the Law of the Treaties; the implementation of a resolution would be effective provided there was consensus regarding its application among IMO Member States; and
- the adoption of a resolution would affect the legal status of those countries who have already become Contracting States.

Once in force the BWM Convention should not be applied retroactively; Member States could always adopt under their national law measures implementing the Convention, provided that the interests of other States were not affected.

4.11 Noting the support for an MEPC resolution on this matter and being aware that the MEPC will consider further proposals for approval of ballast water management systems at its next session, the Sub-Committee agreed to invite MEPC 56 to consider the text proposed by ICS as a

basis for further development of such a resolution should the availability of technologies still be a matter of concern by that time.

4.12 With regard to the non-retroactivity of the BWM Convention, the Sub-Committee noted the view of the Secretariat that, if the conditions for entry into force are not met by the end of this year, the Convention would only enter into force after 1 January 2009, which in turn, would shift the first application date of D-2 standard to the date of entry into force of the Convention and that, consequently, in view of the Secretariat, ships constructed between 1 January 2009 and the date of entry into force would not be required to meet the regulation D-2 standard until 2014 or 2016 according to their ballast water capacity (see paragraph 4.36).

4.13 The delegation of Norway expressed disagreement with the statement, reflected in paragraph 4.12 above, that ships constructed between 1 January 2009 and the date of entry into force of the BWM Convention would not be required to meet the regulation D-2 standard until 2014 or 2016, according to their ballast water capacity. The delegation suggested that it would be beneficial if this aspect could be further examined by the MEPC and welcomed further advice from the Legal Office of the Organization at MEPC 56. The delegations of Germany, United States and Japan associated themselves with the intervention by Norway.

Further development of Guidelines for ballast water sampling (G2), Guidelines for risk assessment under regulation A-4 (G7), and Guidelines for additional measures regarding ballast water management including emergency situation (G13)

4.14 The Sub-Committee recalled that the Ballast Water Working Group established during BLG 10 was not able to finalize the texts of Guidelines for ballast water sampling (G2) and Guidelines for risk assessment under regulation A-4 (G7). Consequently, the Sub-Committee instructed the Secretariat to submit an updated version of these draft Guidelines for further consideration by BLG 11 and invited Members and observers to submit their contributions for further development and possible completion of these documents.

4.15 The Sub-Committee noted that the updated version of these two Guidelines had been submitted by the Secretariat in documents BLG 11/4 and BLG 11/4/1, respectively, and documents BLG 11/4/5 (Brazil), BLG 11/4/10 (United Kingdom), BLG 11/4/4 (Australia and New Zealand) and BLG 11/4/13 (United States) had comments and proposals on the draft Guidelines (G7) and/or (G2).

4.16 After some discussion, the Sub-Committee agreed to refer the above-mentioned documents to the Ballast Water Working Group for detailed consideration and, instructed the Working Group to use the text provided in document BLG 11/4/14 (Australia and New Zealand) as a basis for further development of Guidelines (G7), taking into account the documents mentioned in paragraph 4.14 above and the comments made in plenary.

4.17 The Sub-Committee recalled that MEPC 55 had instructed BLG 11 to further consider the alternative text for section 2.3 of the Guidelines for additional measures regarding ballast water management including emergency situation (G13) proposed by Norway in document MEPC 55/2/22. MEPC 55 also instructed BLG 11 to limit its consideration of the proposed section 2.3 to procedures related to the situation when IMO approval is necessary and to related consequential amendments. BLG 11 was further instructed to submit the final draft of Guidelines (G13) to MEPC 56 for adoption.

4.18 After the introduction of document BLG 11/4/12 (United States) and BLG 11/4/16 (Singapore), which commented on the changes to section 2.3 of Guidelines proposed by Norway and a preliminary discussion, the Sub-Committee noted the overwhelming support for document BLG 11/4/16 (Singapore). It also noted some support for the suggestion by Japan regarding the deletion of the reference to the territorial sea in paragraph 2.3.1.2.3 of the submission by Singapore and the support for the flowchart included in document MEPC 55/2/22 and agreed to refer these documents to the Working Group for detailed consideration.

Draft Guidelines for ballast water exchange in the Antarctic Treaty area

4.19 The Sub-Committee recalled that MEPC 54 supported the development of specific guidelines for ballast water exchange in Antarctic waters and invited Members and observers to enhance regional co-operation and communicate relevant information in pursuance of Articles 13 and 14 of the BWM Convention.

4.20 Having considered document BLG 11/4/9 (United Kingdom) the Sub-Committee noted that a set of Guidelines for ballast water exchange in the Antarctic Treaty area had been adopted by an Antarctic Treaty Consultative Meeting resolution and agreed to invite the MEPC to consider the adoption of these draft Guidelines by an MEPC resolution. In response to a question by Argentina, the United Kingdom confirmed that its submission was at the request of the Antarctic Treaty Consultative Meeting. The draft Guidelines and the resolution on their adoption are set out in annex 2.

Methodology for information gathering and the conduct of work of GESAMP-Ballast Water Working Group and related issues

4.21 The Sub-Committee recalled that MEPC 55 had considered the report of the second meeting of the GESAMP-BWWG (MEPC 55/2/16) and, in respect of the action items related to the Methodology for information gathering and conduct of work (the Methodology), instructed BLG 11 to consider the outcome of the third meeting of the Group and report to MEPC 56.

4.22 The Sub-Committee noted that the GESAMP-BWWG had met from 19-24 February 2007 and further developed the Methodology in light of the comments provided at MEPC 55. The Group made recommendation regarding document MEPC 55/2/29(Norway), suggested what could be considered as a basis for defining the storage requirements of chemical used for the treatment of ballast water on board ships and offered comments on the development of an Emission Scenario Document (ESD).

4.23 The Sub-Committee concurred with the view of the GESAMP-BWWG that the Methodology remains a living document, which will need to be changed in the light of experience gained during the evaluation process, and agreed to refer documents BLG 11/WP.5 and BLG 11/WP.5/Add.1 to the Ballast Water Working Group for detailed consideration and subsequent reporting to MEPC 56.

4.24 Having considered document BLG 11/4/7 introduced by the Republic of Korea on reasons why short-lived radicals generated during treatment in certain ballast water management systems cannot be considered as Active Substances and the relevant section of document BLG 11/WP.5 (Secretariat), the Sub-Committee agreed to refer this mater to the Ballast Water Working Group for detailed consideration.

4.25 The Sub-Committee recalled that MEPC 55 had agreed that a suitable Emission Scenario Document should be produced and used by applicants and the GESAMP-BWWG for the risk assessment of Active Substances associated with ballast water treatment, particularly with regard to calculating the Predicted Environmental Concentration (PEC), and invited Governments to come forward with suitable proposals for such a document.

4.26 Having considered document BLG 11/4/11 (United Kingdom) on the development of an ESD and document BLG 11/4/15 (CEFIC) commenting on it, together with the section related to ESD in document BLG 11/WP.5, the Sub-Committee concurred with the view of GESAMP-BWWG that a detailed comparison of potentially useful models available should be made to see if they are suitable or could be adapted for ballast water discharges. Recognizing the difficulties in developing a full ESD for Active Substances used in ballast water management systems at the present time, the Sub-Committee agreed that a specific Emission Scenario tailored to a specific treatment, as proposed by the United Kingdom in document BLG 11/4/11, could be used in the process of Final Approval.

Establishment of the Ballast Water Working Group

4.27 The Sub-Committee re-established the Ballast Water Working Group under the chairmanship of Mr. Brian Elliott (United Kingdom) and instructed the Group to take into account the comments made in plenary and to:

- .1 consider the issue of short-lived and naturally occurring by-products created during the ballast water treatment in the light of documents MEPC 55/2/29 (Norway), BLG 11/WP.5 (Secretariat) and BLG 11/4/7 (Republic of Korea) and prepare recommendations to MEPC 56 as appropriate;
- .2 consider the proposals for further development of the Methodology for information gathering and conduct of work of GESAMP-BWWG contained in documents BLG 11/WP.5 and BLG 11/WP.5/Add.1 (Secretariat) and prepare recommendations to MEPC 56 as appropriate;
- .3 consider the alternative text for section 2.3 of the Guidelines for additional measures regarding ballast water management including emergency situations (G13) contained in document MEPC 55/2/22 (Norway) together with documents BLG 11/4/12 (United States) and BLG 11/4/16 (Singapore) commenting on it, using the latter as a basis for discussion. The Group was further instructed to limit the discussions to procedures related to the situation when IMO approval is necessary and finalize the work on these Guidelines with the view to recommending their adoption by MEPC 56;
- .4 further consider the draft Guidelines for risk assessment under regulation A.4 (G7) based on the updated version provided in document BLG 11/4/4 (Australia and New Zealand) taking into account relevant comments in documents BLG 11/4/5 (Brazil) and BLG 11/4/13 (United States) with a view to finalizing the work on these Guidelines;
- .5 consider documents MEPC 55/2/14 (India) and MEPC 55/2/28 (ICS) and assess the possible benefits derived from using an e-Ballast Water Reporting Form and make recommendations to MEPC 56 as appropriate;

- .6 consider document MEPC 55/2/20 (Brazil) and make recommendations regarding the long-term effects, maintenance and reliability of Ballast Water Management Systems as appropriate;
- .7 further develop the Guidelines for ballast water sampling (G2) based on the updated version provided in document BLG 11/4/1 (Secretariat), taking into account relevant comments made in documents BLG 11/4/5 (Brazil) and BLG 11/4/10 (United Kingdom);
- .8 develop a “guidance document” on arrangements for responding to emergency situations involving ballast water operations, using document MEPC 55/2/19 (Brazil) as a basis for the development of a circular on this matter, if time permits; and
- .9 submit a written report on the work carried out by the Group, including recommendations to MEPC 56, on Friday, 20 April 2007, in the morning.

Report of the Working Group

4.28 The Chairman of the Ballast Water Working Group introduced the report (BLG 11/WP.2) and informed the Sub-Committee that the Group finalized the Guidelines for additional measures regarding ballast water management including emergency situations (G13) and the Guidelines for risk assessment under regulation A-4 (G7), which could be forwarded to MEPC 56 for consideration and adoption.

4.29 The Chairman also informed that the Group had agreed that a distinction needs to be made between those systems that used physical methods to achieve the D-2 standard and those that used chemical methods. As such, the Group agreed that any system which makes use of, or generates, Active Substances or free radicals during the treatment process to eliminate organisms in order to comply with the Convention should be evaluated by the GESAMP-BWWG and advise the MEPC accordingly. The Group agreed further that systems not falling under Procedure (G9) and the interpretation on Active Substances and free radicals above could also produce chemicals and by-products that could harm human health and the environment, and affect the safety of the ship and its crew. However, the Group was of the view that this impact could be evaluated under the provisions of paragraph 1.6 of the Guidelines (G8) and, therefore, would not have to go through Procedure (G9). The Group agreed that the evaluation of eco-toxicological effects under the Guidelines (G8) may need to be re-evaluated to better identify these concerns.

4.30 The Sub-Committee noted the concern of the delegations of the Netherlands, Germany and ICS that paragraph 4.29 above makes a specific reference to Guidelines (G8) with respect to possible eco-toxicological effects whilst the Guidelines do not contain any such procedure. Until such time as the recommended re-evaluation of Guidelines (G8) applies, several delegations believed that such systems should be evaluated under Procedure (G9) as recommended in paragraph 3.3.5 of the BLG 11/WP.5.

4.31 The Sub-Committee also noted the suggestion by Germany, supported by the Netherlands, and ICS, that a guidance document to supplement Guidelines (G8) should be developed as soon as possible. The Sub-Committee noted further the support of Marshall Islands, Greece, Italy, Sweden and Ireland for the concern expressed by Germany and others in paragraph 4.29 above.

4.32 The delegation of Marshall Islands was of the view that it was unfortunate the Working Group could not address Guidelines (G2) for ballast water sampling as there seemed to be still considerable disagreement with regard to the issue of ballast water management systems sampling for port State control – averaging versus instantaneous sampling. The delegation of Marshall Islands informed the Sub-Committee about its intention to make a submission to MEPC 56 to discuss the possibility of periodic re-certification of such systems rather than sampling for port State control purposes.

4.33 The delegation of Brazil expressed its concern regarding the postponement of the three items that could not be considered by the Ballast Water Working Group at this session (i.e. Guidelines (G2) as well as documents MEPC 55/2/19 and MEPC 55/2/20 submitted by Brazil) and recommended the re-establishment of the BWWG at BLG 12 to complete these items.

4.34 On the same matter, the delegation of Canada informed about the need to complete the Guidelines (G2) as a pre-requisite for the ratification of the BWM Convention and invited the Sub-Committee to explore all the possibilities to finalize these Guidelines as soon as possible.

4.35 In his summing up the Chairman invited Members and observers to contribute to the completion of Guidelines (G2) and to make every effort to finalize the work at BLG 12.

4.36 The delegation of the United States requested the Secretariat to make the necessary editorial changes to align the text in paragraph 19.2 of the Working Group's report with the provisions of paragraph 6.7.6 of the Guidelines (G7).

Action taken by the Sub-Committee on the report of the Working Group

4.37 Having considered the report of the Working Group (BLG 11/WP.2), the Sub-Committee approved it in general and took action as indicated below:

- .1 agreed to recommend to the MEPC that any system which makes use of, or generates, Active Substances or free radicals during the treatment process to eliminate organisms in order to comply with the Convention should be evaluated by the GESAMP-BWWG;
- .2 agreed to invite MEPC 56 to allocate time for a thorough consideration of the GESAMP-BWWG Methodology within the framework of the Ballast Water Review Group to be established at that session with the view to advising the GESAMP-BWWG before its next meeting tentatively scheduled for October 2007;
- .3 agreed to invite MEPC 56 to consider the adoption of the Guidelines for additional measures regarding ballast water management including emergency situations (G13) by an MEPC resolution as set out in annex 3 to this report;
- .4 agreed to invite MEPC 56 to consider the adoption of the Guidelines for risk assessment under regulation A-4 (G7) as set out in annex 4 to this report and instructed the Secretariat to prepare a draft MEPC resolution on their adoption to be submitted to MEPC 56;
- .5 agreed to recommend to the MEPC that the use of e-Ballast Water Reporting Forms, currently in use in different countries, should not be promoted and the

decision to use such reporting forms should be left to each Member State if they deem appropriate; and

- .6 agreed to request the MEPC to extend the target completion date for the remaining items to year 2008 (see paragraph 13.2) and explore the opportunities to complete the remaining items, in particular the Guidelines for ballast water sampling (G2), as soon as possible.

5 REVIEW OF MARPOL ANNEX VI AND THE NO_x TECHNICAL CODE

5.1 The Sub-Committee noted that the Protocol of 1997 to MARPOL 73/78 which contains MARPOL Annex VI “Regulations for the Prevention of Air Pollution from Ships”, as at 1 April 2007, had 41 Parties, representing approximately 72.31% of the gross tonnage of the world’s merchant shipping. The Chairman thanked Cook Islands and Kiribati for the latest ratifications and encouraged other IMO Member States, not yet parties to the 1997 Protocol to the MARPOL Convention, to ratify it as a matter of urgency.

5.2 The Sub-Committee also noted that the contribution of ship emissions to air quality problems in many parts of the world was growing, as land-based industry and road transport were reducing their emissions and global trade and shipping were growing in scale and volume, ship emissions was becoming more prominent. Many Governments and local politicians were now considering effective ways of addressing ship emissions at the local, national and international levels to protect human health and the environment within their jurisdiction.

5.3 The Sub-Committee agreed that IMO should maintain the primary position as the global regulator of international shipping and avoid proliferation of unilateral regulation by significantly tightening the emission limits of Annex VI and putting in place a long term strategy for the prevention of air pollution from ships engaged in international trade.

5.4 The Sub-Committee recalled that MEPC 53 agreed that there was a need to revise MARPOL Annex VI and the NO_x Technical Code and approved the Terms of Reference for the revision work with a target completion date in 2007 (MEPC 53/24, annex 14). The Sub-Committee further recalled that the work started at the last session of the Sub-Committee where the Working Group on Air Pollution was established under the chairmanship of Mr. Bryan Wood-Thomas (USA) and very good progress was made during that first technical meeting.

5.5 The Sub-Committee also recalled that MEPC 54 had instructed BLG 10 to make arrangements for an intersessional working group meeting to be held before the end of 2006 and that Norway offered to host such a meeting. The intersessional meeting of the working group (BLG-WGAP 1) was held in Oslo, Norway from 13 to 17 November 2006 with more than 100 representatives.

Order of discussion

5.6 The Sub-Committee agreed to consider the agenda item and the submitted documents in the following order:

- .1 outcome of the intersessional meeting of the working group;
- .2 sulphur and particulate matter (PM) issues including the different fuel alternatives;

- .3 NO_x approach for new engines agreed by the working group;
- .4 possible regulation of NO_x emissions from existing engines;
- .5 future VOC regulations;
- .6 definition of tonnage to be used in the amended Annex VI;
- .7 proposal on a record book for ozone depleting substances; and
- .8 introduction of economic instruments to reduce emissions.

5.7 The Sub-Committee agreed that the detailed technical documents under the agenda item should not be introduced or discussed in plenary but be forwarded directly to the Working Group on Air Pollution for consideration; and that only documents which required decisions to be taken by the Sub-Committee should be introduced and debated in Plenary.

5.8 The Sub-Committee considered and approved the last part of the report of the BLG 10 Working Group on Air Pollution that was submitted directly to the intersessional meeting in the form of a Chairman's report as document BLG-WGAP 1/2 and therefore had not yet been presented to or considered by the Sub-Committee.

5.9 The Sub-Committee recalled that BLG 10 established two correspondence groups:

Correspondence Group A: on amendments to the regulations under MARPOL Annex VI under the co-ordination of United States (Mr. Wayne Lundy).

Correspondence Group B: on amendments to the NO_x Technical Code, VOCs and issues related to improved implementation of MARPOL Annex VI under the co-ordination of Norway (Dr. Oyvind Buhaug).

5.10 The Sub-Committee noted that in accordance with the terms of reference for the two groups contained in BLG 10/19, annexes 11 and 12, the reports (Correspondence Group A, document BLG-WGAP 1/2/1, Correspondence Group B, documents BLG-WGAP 1/2/2 and BLG-WGAP 1/2/2/Add.1) were submitted to and considered by the intersessional working group meeting and the outcome is covered in the report from that meeting in document BLG 11/5.

Outcome of the intersessional meeting of the Working Group

5.11 In considering document BLG 11/5 (Secretariat), the Sub-Committee noted that good progress had been made on a range of issues, including implementation matters, and approved the report in general. The Sub-Committee expressed appreciation to Norway for hosting the intersessional meeting and to Member States and observer organizations for submitting documents and sending their experts to attend the meeting and thereby securing a very productive outcome.

Sulphur and Particulate Matter discussion

5.12 The Sub-Committee noted the working group's consideration at BLG-WGAP 1 related to future sulphur limits and the three primary options for future regulation. The Sub-Committee considered parts of the following documents which were relevant to the sulphur and

PM discussion: BLG 11/5 (Secretariat), BLG 11/5/Add.1 (Secretariat), BLG 11/5/1 (Secretariat), BLG 11/5/5 (FOEI), BLG 11/5/6 (FOEI), BLG 11/5/8 (ICS), BLG 11/5/9 (OCIMF), BLG 11/5/14 (IPIECA), BLG 11/5/15 (United States), BLG 11/5/16 (FOEI), BLG 11/5/18 (Republic of Korea), BLG 11/5/19 (Sweden), BLG 11/5/24 (Norway), BLG 11/5/25 (BIMCO) and BLG 11/5/27 (United States).

5.13 A considerable debate followed with numerous delegations commenting on the pros and cons of the respective proposals. Several delegations expressed concern over the ability of the petroleum industry to provide the necessary supply of distillate fuels by the dates proposed. Some delegations questioned the merit of changing to distillate fuels whilst others noted that the proposal was of considerable interest since it would offer multiple benefits and had the advantage of offering a simple and uniform global approach to marine fuels.

5.14 A number of delegations expressed the view that reduction of air pollution from ships should be addressed through establishment of goal-based performance standards and that further consideration needs to be given to a number of issues that will affect what decision will be most appropriate on this important issue. Some delegations maintained the view that a fuel specification was needed while a number of other delegations supported the view that IMO should regulate what comes out of the funnel and not what goes into the engine. A large number of delegations stressed the need for a comprehensive study that would examine the ability of refineries to meet the demands associated with a global distillate standard as well as the environmental and market effects associated with such changes in the petroleum markets. Still others noted that the information was already adequate and that prompt action was needed for the reduction of air pollution from ships. The Secretariat informed the Sub-Committee that the Secretary-General would address the meeting on the issue at a later stage during the session.

5.15 The Sub-Committee noted the diversity of views on this issue and agreed that it was the Sub-Committee's obligation to give full consideration to all the various proposals. This was especially true given the important environmental, human health, and economic implications associated with the scope of the different proposals. The Sub-Committee further agreed that this session should strive to reduce the number of options to those options that represent the main conceptual proposals for future regulation of sulphur and PM.

5.16 The Sub-Committee agreed to instruct the working group to reduce the number of options currently before the Sub-Committee to those options that best represent the principal conceptual approaches to be presented to the MEPC.

Future NO_x regulation on new engines

5.17 The Sub-Committee considered parts of the following documents relevant for the debate on future NO_x regulation for new engines: BLG 11/5 (Secretariat), BLG 11/5/5 (FOEI), BLG 11/5/6 (FOEI), BLG 11/5/8 (ICS), BLG 11/5/9 (OCIMF), BLG 11/5/12 (Japan), BLG 11/5/13 (Japan), BLG 11/5/15 (United States) and BLG 11/5/23 (Norway).

5.18 The Sub-Committee agreed in principle to a "Three Tier Approach" for reduction of NO_x emission from new engines where Tier I is considered as the current limit found in MARPOL Annex VI for engines installed on or after 1 January 2000. The Sub-Committee also agreed that establishing Tier II and Tier III NO_x emission limits applicable to new engines represented an efficient mechanism for reducing emissions consistent with the time frame necessary for the development and production of more advanced emission reduction technologies and agreed to instruct the working group accordingly. The Sub-Committee generally agreed that Tier II limits

should reflect the application of in-engine measures with potential reductions as indicated in annexes 5, 6 and 7 to document BLG 11/5.

NO_x emissions from existing engines

5.19 The Sub-Committee noted that existing engines were not covered by the current regulations in MARPOL Annex VI. Existing engines are those engines produced and installed prior to January 2000 that do not meet the provisions of regulation 13 of MARPOL Annex VI and are not certified in accordance with the provisions of the NO_x Technical Code.

5.20 The Sub-Committee also noted that due to the long life of vessels with marine diesel engines, the emission benefits associated with new engine standards would take a very long time to achieve their full effect. The Sub-Committee further noted that leading manufacturers had revealed that significant emission improvements could be achieved in many engines made before January 2000 through valve upgrades and other procedures that are feasible through routine maintenance of the engines.

5.21 Having noted the intersessional working group's view related to existing engines that more detailed proposals were needed and further noting that such detailed proposals had been submitted to this session, the Sub-Committee considered parts of the following documents relevant to the debate on possible NO_x regulations for existing engines: BLG 11/5/6 (FOEI), BLG 11/5/8 (ICS), BLG 11/5/9 (OCIMF), BLG 11/5/12 (Japan), BLG 11/5/15 (United States), BLG 11/5/22 (Norway) and BLG 11/5/26 (Denmark).

5.22 In considering establishing NO_x emission requirements for existing engines, a number of delegations expressed the view that the focus should be on 2-stroke slow speed engines because of their higher NO_x emission and technical feasibility for emission reduction compared to high and medium speed 4-stroke engines. The Sub-Committee agreed that any new standards should be applied in a way that the newest engines are brought in compliance first, while more time should be given to the older engines to be brought in compliance.

5.23 Consistent with discussions held at BLG 10, the Sub-Committee agreed that any standard applicable to existing engines would necessitate significant changes to the certification requirements and the NO_x Technical Code that would apply in such circumstances.

5.24 Some delegations expressed the need to establish NO_x standards for pre-2000 engines due to the magnitude of emissions associated with these engines, while others expressed objections to the idea of establishing retrospective standards for pre-2000 engines. A number of delegations also noted that more specific information was needed to determine the feasibility and practicality of applying such a standard to existing engines, and that the first task for the Sub-Committee should be to examine the feasibility and not to develop draft proposals for amendments, and that this approach was in line with the terms of reference for the revision work as approved by MEPC 53.

5.25 The Sub-Committee noted that there appeared to be a growing recognition that substantial benefits could be achieved through adoption of a reasonable standard applicable to existing engines, and agreed to direct the working group to examine the feasibility of introducing a standard for existing (pre-2000) engines and further, to develop a draft proposal for possible regulations applicable to pre-2000 engines and to consider how such a standard should be articulated, what engines should be subject to such a standard, and what changes to the existing certification procedures would be appropriate.

Future VOC regulations

5.26 The Sub-Committee noted that in the current MARPOL Annex VI regulations there is no general requirement for ships or terminals to reduce or prevent the emissions of VOCs. However, there was a requirement that if ports and terminals, under the jurisdiction of a Party to the 1997 Protocol, choose to require vapour recovery systems on tankers calling at a given port, the Party must notify the Organization, as specified in regulation 15.

5.27 The Sub-Committee noted the working group's debate related to reduction of VOC emissions from tankers through the introduction of vessel-specific operational procedures approved by the flag Administration and considered parts of the following documents relevant to the discussion on possible future VOC regulations: BLG 11/5/8 (ICS), BLG 11/5/9 (OCIMF) and BLG 11/5/11 (Norway).

5.28 The Sub-Committee agreed that oil tankers should be required to develop VOC management plans and agreed to instruct the Working Group to use BLG 11/5/11 as the basic document for its consideration.

Tonnage to be used in MARPOL Annex VI

5.29 The Sub-Committee noted that the International Convention on Tonnage Measurement of Ships, 1969 (1969 Tonnage Convention) also applied to existing ships as from 1994, and further noted that existing ships to which the 1969 Tonnage Convention applied shall retain their previously calculated tonnage for the purpose of the application of relevant requirements under other existing international conventions. The nineteenth session of the Assembly had realized that tonnages determined under the 1969 Tonnage Convention may differ from those determined under the old national tonnage regulations and may, therefore, induce confusion in connection with the application of different IMO Conventions.

5.30 The Sub-Committee considered document BLG 11/5/3 (IACS) and agreed to instruct the Working Group to consider the definition of tonnage to be used in the amended MARPOL Annex VI and to recommend draft text to be included, and if there was a need, recommend updating or amending relevant resolutions or circulars.

Proposal on a record book for ozone depleting substances

5.31 The Sub-Committee noted that ozone depleting substances were regulated by regulation 12 of MARPOL Annex VI and that the provisions of the regulation were in line with the Montreal Protocol. Regulation 12 introduced a ban on Ozone Depleting Substances, however, with some exceptions on installation and a ban of deliberate emissions of any ozone depleting substance.

5.32 The Sub-Committee also noted that regulation 12 on Ozone Depleting Substances was not covered explicitly by the Terms of Reference for the revision of MARPOL Annex VI but that the Sub-Committee had also been given the task to review the text in general and recommend to MEPC any amendments deemed necessary, to improve implementation of MARPOL Annex VI.

5.33 The Sub-Committee considered document BLG 11/5/10 (the Netherlands and Norway) to introduce a record keeping requirement for ozone depleting substances. A number of delegations expressed support for recording onboard handling of ozone depleting substances

(non-cargo ozone depleting substance). The Sub-Committee noted that the requirement should only be applicable for ships with such substances onboard and not for all ships in general. After discussion, the Sub-Committee agreed that the recording should be included in existing recording systems and not be introduced as a new logbook placing additional burden on seafarers and ship operators.

5.34 The Sub-Committee agreed to consider further the proposal for recording the handling of ozone depleting substances in existing record systems and propose a draft text to be included in MARPOL Annex VI.

Introduction of economic instruments to reduce emissions

5.35 The Sub-Committee noted that the current text of MARPOL Annex VI set emission limits for individual ships and did not allow the use of economic instruments to meet the limits, but as such instruments had proved effective in reducing air pollution from land-based sources, it had also been proposed to introduce such mechanisms for international shipping.

5.36 The Sub-Committee also noted that the working group at BLG-WGAP 1 agreed in principle to amend regulation 4 to allow coastal States and Administrations to conduct trials for economic instruments such as differentiated fairway dues, emission trading or any other similar schemes, on the basis that such schemes were on a voluntary basis and within the Exclusive Economic Zone of the State or States involved.

5.37 The Sub-Committee considered document BLG 11/5/17 (United Kingdom) and agreed to give further consideration to the proposal outlined in BLG 11/5/17 and instructed the Working Group accordingly.

Re-establishment of the Working Group on Air pollution

5.38 The Sub-Committee re-established the Working Group on Air Pollution at this session under the chairmanship of Mr. Bryan Wood-Thomas (United States) and instructed it, taking into account submissions to BLG 11, and comments made in plenary, to:

- .1 follow the Terms of Reference on the revision of MARPOL Annex VI and the NO_x Technical Code as agreed by MEPC 53 (set out in BLG 11/5, paragraph 3.1);
- .2 further develop the principal options for future sulphur and PM regulations as identified in BLG 11/5, annex 8 and in submissions to this session, and as possible, reduce the number of options to those that best represent the principal conceptual approaches to be presented to the MEPC. If appropriate, use the format given in the annex to BLG 11/5/1 to delineate the options;
- .3 finalize a draft proposal for “Tier II” and “Tier III” NO_x regulations for new engines with possible entry into force dates and corresponding emission limits in square brackets ([]);
- .4 examine the feasibility and develop a draft proposal for possible NO_x regulations for existing engines, and identify the work needed on a simplified certification scheme for such engines;

- .5 further develop the draft proposal for introduction of operational measures to prevent VOC emissions, using the annex to document BLG 11/5/11 as the base document;
- .6 consider the definition of tonnage to be used in MARPOL Annex VI and recommend draft text to be included, and if there is a need, recommend updating or amendments to relevant resolutions or circulars;
- .7 consider the proposal for recording the handling of ozone depleting substances in existing record systems and propose a draft text to be included in MARPOL Annex VI;
- .8 consider the introduction of economic instruments to reduce emissions and recommend a draft text to be included in MARPOL Annex VI;
- .9 take resolution A.500(12), resolution A.777(18), resolution A.900(21), MSC-MEPC.1/Circ.1 into account, as appropriate, when considering reducing NO_x and PM limits for existing engines;
- .10 consider the possibility of meeting the target completion date of 2007, and if not, consider the needed extension and the need for intersessional work prior to BLG 12, and develop draft Terms of Reference for such work; and
- .11 report the progress of the work and include a draft work plan for the revision process to Plenary in a written report by Thursday, 19 April 2007.

Announcement by the Secretary-General

5.39 Following completion of the Working Group's deliberations, the Secretary-General, having followed closely developments on the Review of MARPOL Annex VI and the NO_x Technical Code, addressed the Sub-Committee to, first of all, congratulate it, the Working Group and their respective Chairmen for their painstaking efforts to respond to the mandate set by the MEPC, and to share his thoughts with the Sub-Committee on the important issue of how best to revise MARPOL Annex VI, so as to end up with an instrument that would not only address its objective efficiently and effectively, but also one that, while demonstrating the true and genuine concern of shipping about the atmospheric environment, would contribute substantively to the overall efforts of mankind to minimize air pollution from all possible marine sources and would also address climate change issues. In the Organization's endeavours to achieve this, it was important not only to remain focused on the desired goal but also to ensure that improvements in one area were not compromised by negative impacts in others.

5.40 In echoing his opening address to the Sub-Committee's Intersessional Working Group in Oslo last year, in which he had noted that it would make sense to pursue the matter in hand in a holistic manner, by involving all interested parties, including oil producers and engine manufacturers, the Secretary-General suggested that, by adopting an inclusive approach, engaging governments, industry and the scientific community, it would be possible to move quickly to understand the "big picture" and to propose to the MEPC amendments that were both workable and capable of achieving the agreed objectives. With this in mind, it was his intention to propose the setting up of a cross government/industry scientific group to evaluate the effects of the various amendments being tabled, the findings of which would enable the MEPC to make learned and sound decisions at the appropriate time.

5.41 The Secretary-General considered that, because of the many voices expressing a variety of positions coming from so many directions, such an approach would provide the Committee with the advice it needed to make balanced decisions, based on sound criteria and practicable, achievable and affordable solutions. He, therefore, intended to propose, to the forthcoming fifty-sixth session of the Committee, scheduled for July 2007, the commissioning of a comprehensive study, with specific terms of reference, to address as many of the issues in hand as possible.

5.42 The Secretary-General expressed the hope that his proposal would be received and interpreted as a contribution to a debate, the outcome of which would not only mean a lot to shipping but would also clearly demonstrate an environmentally-friendly and responsible industry – which shipping certainly was – and IMO as the Organization that could produce well worked out and timely results, when needed.

5.43 In informing the Sub-Committee of his intention, the Secretary-General invited it to continue unabated its commendable efforts to put together, for the MEPC to approve and adopt within the agreed timetable, a robust set of amendments to MARPOL Annex VI and the NO_x Technical Code.

5.44 The Sub-Committee noted with appreciation the announcement by the Secretary-General that he would propose to MEPC 56 the setting up of a cross government/industry scientific group to do a Study to help the MEPC to make informed and workable decisions.

Report of the Working Group

5.45 Considerable discussion followed on the report of the Working Group (BLG 11/WP.4 and BLG 11/WP.4/Add.1). A summary of the debate, together with comments of some of the delegations, is shown in the ensuing paragraphs.

Statement by Friends of the Earth International (FOEI)

5.46 The FOEI observer delegation stated that it represented millions of people around the globe and that many of these suffer day to day from pollutants in the atmosphere. Shipping is one of these sources, and the combined emissions from the world fleet will increase over the next decade. Only if substantial measures are taken can such emissions be reduced. Although some delegations have been asking for more information, and not take hasty decisions, FOEI believed that the evidence is clear enough. Shipping, like any other source of pollution, should take ambitious steps to clear the air for all those people suffering from exhaust emissions. The revised time schedule means delay, so FOEI requested IMO to consider avoiding any additional delay.

Future VOC regulations

5.47 In considering the draft amendment to regulation 15 of MARPOL Annex VI on introduction of operational measures to prevent VOC emissions from tankers, as developed by the working group, several suggestions for further amendments were put forward, both to the draft amended text of regulation 15 and the related draft guidelines. Some delegations expressed the view that the requirements should be applicable to every tanker “certified to carry crude oil”, while others preferred the current draft – “every tanker carrying crude oil”. The delegation of Bahamas reasoned that a VOC emission assessment should be carried out and the result submitted to the flag State together with the draft VOC management plan to facilitate the concerned administration in the approval of the plan.

NO_x standards for new engines

5.48 EUROMOT stated that the proposed NO_x reduction in “Tier II” of 3.5 grams/kilowatt-hour was not consistent with the discussions and outcome of BLG 10 and BLG-WGAP 1 and could hardly be reached by available in-engine technology without compromising engine reliability and increasing fuel consumption. In its view, a longer lead time was needed if reduction of more than 3 grams/kilowatt-hour would be introduced and the tentative entry into force date of 1 January 2011 should be revisited. Finland, and China supported the view expressed by EUROMOT that a reduction on 3.5 grams/kilowatt-hour would require new technology to be developed, which may not be available by 2011. ICS expressed concerns over a proposed emission reduction that could entail reduced engine reliability and increased fuel consumption and urged the Sub-Committee to be realistic and not to compromise safety in its efforts to reduce air emissions.

5.49 The delegation of Japan expressed its view that the table on “Tier III” NO_x proposals was an excellent mechanism for consideration of the current “Tier III” proposals, but since some of the technologies involve uncertainties, the table should be regarded as indicative and should be updated at the intersessional meeting and at BLG 12 to reflect the latest information. The delegation of Norway explained that the 2 to 3.5 grams per kilowatt hour reduction in the working group’s report is the result of converting percent reduction proposals to the gram per kilowatt hour metric. It further noted that the 3.5 grams per kilowatt hour figure, in their judgement, represents a 20% reduction for slow-speed engines and a 25% reduction from “Tier I” for medium-speed engines.

NO_x standards for existing engines

5.50 FOEI expressed concerns over a complete exemption for existing (pre-2000) engines and stressed that anticipated growth in shipping emissions would outpace fleet-wide reductions. In its view, emission reductions limited to new ships would not be sufficient to produce needed reductions on a fleet-wide basis and that reductions from existing engines should also be required, and that prompt and steep emission reductions from the entire global shipping fleet were necessary to prevent a continued rise in such emissions over the next several decades.

Options for addressing sulphur and particulate matter (PM)

5.51 The delegation of the Bahamas supported by a number of delegations, stated that a goal-based approach should be pursued and that document BLG 11/5/8 (ICS) should be forwarded to the MEPC for further consideration since certain elements of the document remained to be fully considered.

Proposed intersessional meeting of the Working Group on Air Pollution

5.52 A large number of delegations expressed the view that intersessional work was needed and supported the request to MEPC 56 for an intersessional meeting of the working group. Debate followed on the formalities surrounding the holding of intersessional meetings. The Sub-Committee noted that, in accordance with paragraph 3.46 of the Committees’ Guidelines, no arrangements should be made with respect to intersessional meetings of working groups until such meetings have been approved by the Committee(s).

5.53 The Sub-Committee noted with appreciation that, pending approval by MEPC 56, Germany offered to host an Intersessional Working Group meeting (BLG-WGAP 2) and that the appropriate time was late October or early November (tentative dates identified as 29 October – 2 November 2007).

5.54 The delegation of Saudi Arabia invited Germany and the Secretariat to allocate dates for the intersessional meeting that would not be in conflict with other international meetings dealing with air emissions, such as meetings under the UNFCCC.

5.55 The delegation of Panama, whilst recognizing the importance of the matter, expressed concern over the increase in the number of intersessional meetings because of the cost to Member States and the Organization alike and also because many Member States are unable to participate in such meetings where important decisions are taken.

Action taken by the Sub-Committee on the report of the Working Group

5.56 Having received and considered the first part of the report of the Working Group on Air Pollution (BLG 11/WP.4), the Sub-Committee approved the report in general and, in particular:

- .1 noted the working group's considerations on operational measures to prevent VOC emissions from tankers, considered the proposed amendments to MARPOL Annex VI, regulation 15 as set out in annex 5, and the draft guidelines for VOC management plans as set out in annex 6 and agreed to give the proposal further consideration at a future session;
- .2 noted the discussions and the draft proposal for Tier II NO_x regulations for new engines that the working group had agreed to a 1 January 2011 implementation date for Tier II with a possible reduction of 2 to 3.5 grams of NO_x per kilowatt – hour across the current NO_x curve attainable through in-engine design;
- .3 regarding the development of Tier III NO_x regulations for new engines, noted that the working group generally agreed that 2015/2016 was an appropriate timeframe for implementation of the Tier III standard, and further noted the development of a table comparing the three proposals for Tier III, as shown in annex 3 to document BLG 11/WP.4;
- .4 regarding the definition of tonnage, noted that the majority of the working group expressed the view that the tonnage measured should be in accordance with the International Convention on Tonnage Measurement of Ships, 1969; that this should be used when applying MARPOL Annex VI; and that this should be reflected in a new definition. In addition, it noted the working group's agreement that there was no need to recommend any updating or amendment to any resolutions or circulars;
- .5 noted the working group's considerations with regard to the introduction of economic instruments in MARPOL Annex VI to reduce emissions and encouraged Member States and observers to submit comments for facilitating discussions at a future session;
- .6 noted the working group's considerations with regard to NO_x emission standards for existing engines, including the need for a simplified certification scheme;

- .7 having noted the working group's consideration of options for addressing sulphur and particulate matter, invited MEPC 56 to further consider those options, as set out in annex 4 to document BLG 11/WP.4, and to forward document BLG 11/5/8 (ICS) to MEPC 56 for further consideration, as the Sub-Committee believed that certain elements of that document remain to be addressed;
- .8 noted that, due to time constraints, the Sub-Committee was unable to fully consider the proposed amendments to resolution MEPC.130(53) on Guidelines for On-board Exhaust Gas-SO_x Cleaning Systems and, having noted that the proposals set out in annex 6 to document BLG 11/WP.4 had merit, invited MEPC 56 to take them into account when considering issues relevant to washwater criteria for Exhaust Gas-SO_x Cleaning Systems; and
- .9 requested MEPC 56 for one more session of the Sub-Committee to complete the revision work of MARPOL Annex VI, including the holding of an intersessional meeting of the working group in the autumn of 2007, and approved the draft revised timetable in this regard, as set out at annex 7.

5.57 With regard to the second part of the report of the working group (BLG 11/WP.4/Add.1), the Sub-Committee approved the report in general and, in particular:

- .1 noted that the working group was unable to reach agreement on a number issues related to achieving conformity of the NO_x Technical Code with ISO 8178 and agreed to forward them to a future session for further consideration;
- .2 noted the working group's considerations on harmonizing a record book of engine parameters and that the group agreed to revisit the matter at a future session;
- .3 agreed to the draft text, as amended by the Sub-Committee, to be included in MARPOL Annex VI introducing a requirement for recording of onboard handling on non-cargo ozone depleting substances, set out at annex 8;
- .4 noted the working group's considerations regarding smoke and Particulate Matter (PM) emission characteristics;
- .5 concurred with the working groups decision that certification of engines installed in mobile machinery carried by a ship, installed in water borne, or other craft, carried by a ship (other than those installed in lifeboats) or engines which are temporarily installed on board a ship should be left to the discretion of the relevant (flag State) Administration;
- .6 noted the working group's consideration on clarification of definitions for rigs and platforms, and if drill ships are included in the scope of the regulation, and that the matter should be revisited at a future session; and
- .7 noted the working group's consideration related to incinerators and amendments to regulation 16 of MARPOL Annex VI, and that the matter should be revisited at a future session.

6 DEVELOPMENT OF PROVISIONS FOR GAS-FUELLED SHIPS

6.1 The Sub-Committee recalled that BLG 10 had agreed on a long-term action plan for the further work on the provisions for gas-fuelled ships as follows:

- .1 establishment of a correspondence group at BLG 10;
- .2 preparation of the draft Interim Guidelines at BLG 11 for dissemination to the DE, FP and STW Sub-Committees, for consideration of matters under their purview;
- .3 establishment of a correspondence group at BLG 11, if necessary;
- .4 finalization of the draft Interim Guidelines on safety for gas-fuelled engine installation in ships at BLG 12 (2008), taking into account the input of the DE, FP and STW Sub-Committees, for submission to MSC 84 for approval; and
- .5 beginning of the development of the draft International Code of Safety for Gas-fuelled Engine Installations in Ships (IGF Code), using the Interim Guidelines as a basis.

6.2 Consequently, BLG 10 had established a correspondence group under the co-ordination of Norway and instructed it to further develop the draft Interim Guidelines on safety for gas-fuelled engine installation in ships; to commence work on identification of hazard scenarios, safety analysis and collection and consideration of safety analyses already performed for natural gas; and to prepare a detailed action plan for the work to be carried out by other sub-committees and revise the long term action plan (see paragraph 6.1).

6.3 The Sub-Committee noted that MSC 82, following a relevant request of BLG 10, had assigned the role of co-ordinator for the item (previously the DE Sub-Committee) to this Sub-Committee.

6.4 The Sub-Committee noted that FP 51, having noted the relevant outcomes of DE 49 and BLG 10 (FP 51/19, section 7) in particular that the draft Interim Guidelines would be prepared at BLG 11 for referral to DE 51, FP 52 and STW 39 for consideration of matters under their purview, decided to delay the work on this item until the aforementioned draft Interim Guidelines are available and invited the MSC to extend the target completion date to 2009.

6.5 The Sub-Committee noted further that DE 50 had agreed to consider at DE 51 any requests by the BLG Sub-Committee for review of the draft Interim Guidelines as prepared by BLG 11 from the DE Sub-Committee's point of view.

6.6 The Sub-Committee had for its consideration the report of the correspondence group (BLG 11/6, submitted by Norway), containing the draft Interim Guidelines on safety for gas-fuelled engine installations in ships.

6.7 The Sub-Committee acknowledged that, due to time constraints, the correspondence group had been unable to consider in-depth identification of the hazard scenarios, safety analysis and collection and consideration of safety analysis already performed for natural gas. The Sub-Committee noted that, also due to time constraints, the correspondence group had not been able to prepare the detailed action plan for the work to be carried out by other Sub-Committees, or revise the long-term action plan.

6.8 The delegation of Australia made several comments on the draft Interim Guidelines about strengthening the provisions for gas safe or emergency shutdown arrangements and harmonization of survey requirements.

Establishment of a drafting group

6.9 In order to progress the work on the draft Interim Guidelines, the Sub-Committee established a drafting group and instructed the group, taking into account the comments and decisions made in plenary and the report of the correspondence group (BLG 11/6), to:

- .1 conduct an editorial and technical review of the draft Interim guidelines on safety for gas-fuelled engine installations in ships as prepared by the correspondence group (BLG 11/6);
- .2 prepare a detailed action plan for further work to be carried out by other Sub-Committees and revise the long-term action plan;
- .3 consider whether there is a need to establish the correspondence group and, if so, prepare the terms of reference for consideration by the Sub-Committee; and
- .4 submit a written report (part 1) on progress made by Thursday, 19 April 2007, and continue working through the week and submit a further report (part 2) to BLG 12 as soon as possible after the session, so that it may be taken into account by the correspondence group, if established.

Report of the drafting group

6.10 Having considered the report of the drafting group (part 1) (BLG 11/WP.7), the Sub-Committee approved it in general and took action as indicated in the following paragraphs.

General

6.11 The Sub-Committee noted that the group commenced its work with items 2, 3 and 4 of its terms of reference, and that part 2 of the group's report, containing the results of the editorial and technical review of the draft Interim guidelines on safety for gas-fuelled engine installations in ships, would be submitted to BLG 12 by the Chairman of the group as soon as possible after the meeting, so that it may be taken into account by the correspondence group.

Work to be carried out by other Sub-Committees

6.12 The Sub-Committee, noting that FP 52 is expected to meet prior to BLG 12, agreed to forward those sections of the draft Interim guidelines (BLG 11/6, annex 1) referred to in BLG 11/WP.7, paragraph 7, that were unlikely to be amended by the BLG Sub-Committee, as they fall under the purview of the FP Sub-Committee, to FP 52, so that it may consider them in advance of receiving the draft Interim guidelines to be prepared by BLG 12.

6.13 The Sub-Committee, noting also that the DE and STW Sub-Committees are expected to meet very shortly after BLG 12, and would therefore only have a short time to consider the outcome of BLG 12, agreed to forward to those Sub-Committees those sections of the draft Interim guidelines (BLG 11/6, annex 1), referred to in BLG 11/WP.7, paragraph 7, falling under

their purview, that could require consideration, so that they may consider them in advance of receiving the draft Interim guidelines from BLG 12.

Long-term action plan

6.14 The Sub-Committee noted that the group had considered the various options for finalizing the draft Interim guidelines and commencing the work on the development of the IGF Code and had identified the following outstanding issues particularly requiring further consideration:

- .1 Preamble;
- .2 section 1.4 – Survey requirements;
- .3 paragraph 2.1.1 – The text contained in square brackets, regarding the application of the risk management process;
- .4 chapter VI – Compressors and gas engines; and
- .5 editorial amendments, including changing the text to reflect the non-mandatory status of the guidelines.

6.15 The Sub-Committee agreed that:

- .1 the possible need for Certification or Document of Compliance provisions should further be considered by the correspondence group;
- .2 as section 1.5 of the guidelines originated from the expectation that the text would be developed into a Code and is therefore not appropriate for the Interim guidelines, to delete it; and
- .3 the text of chapter III is complete, in respect of the BLG Sub-Committee, and that the square brackets should be deleted.

Safety analysis

6.16 The Sub-Committee noted that the correspondence group had received only one safety analysis performed on natural gas and that therefore, due to insufficient information and time constraints, the correspondence group had been unable to consider their term of reference on it. Therefore, the Sub-Committee urged interested Member Governments to submit safety analyses to the correspondence group to facilitate its future work on the development of the IGF Code.

Revised long-term action plan

6.17 As proposed by the drafting group, the Sub-Committee agreed to the revised plan as follows:

- .1 establish a correspondence group at this session to:
 - .1 progress work on the development of the Interim guidelines on safety for gas-fuelled engine installations in ships; and

- .2 collect safety analysis performed for natural gas for consideration by the correspondence group;
- .2 prepare the draft Interim guidelines at BLG 12 pending input from the FP, STW and DE Sub-Committees;
- .3 establish a correspondence group at BLG 12 to:
 - .1 consider the outcome of the FP, STW and DE Sub-Committees, when available, and amend the draft Interim guidelines accordingly; and
 - .2 prepare a work plan, scope and framework for development of the IGF Code;
- .4 finalize the draft Interim guidelines at BLG 13 (2009), taking into account the input of the DE, FP and STW Sub-Committees;
- .5 commence development of the draft IGF Code at BLG [13] using the Interim guidelines as a basic document and taking into account the work of the correspondence group; and
- .6 finalize the draft IGF Code at BLG [15].

Re-establishment of the correspondence group

6.18 To progress the matter intersessionally, the Sub-Committee agreed to re-establish the Correspondence Group on Gas-fuelled Ships, under the co-ordination of Norway*, and instructed it to:

- .1 progress the work on the development of the draft Interim guidelines, based on the outcomes of BLG 11 and using the annex to part two of the report of the drafting group at BLG 11 as the basis;
- .2 collect safety analysis performed for natural gas for consideration by the correspondence group; and
- .3 submit a written report to BLG 12.

6.19 The Sub-Committee, taking into account the target completion date of this agenda item (2007), the anticipated date of BLG 12, and the fact that the draft Interim guidelines had not been finalized at this session, recognized that the FP, DE and STW Sub-Committees will, therefore, not be able to consider the finalized draft guidelines at their next sessions, and invited

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MSC 83 to extend the target completion date to 2009 to enable the BLG Sub-Committee to fully consider the outcomes of the FP, DE and STW Sub-Committees on this agenda item.

7 AMENDMENTS TO MARPOL ANNEX I FOR THE PREVENTION OF MARINE POLLUTION DURING OIL TRANSFER OPERATIONS BETWEEN SHIPS AT SEA

Background

7.1 The Sub-Committee recalled that MEPC 53 had agreed to include in the work programme of the BLG Sub-Committee a high-priority item on “Amendments to MARPOL Annex I for the Prevention of marine pollution during oil transfer operations between ships at sea”, with a target completion date of 2007 (MEPC 53/24, paragraph 20.6).

7.2 The Sub-Committee noted that MEPC 53, in reaching this decision, recognized that the technical and operational issues pertaining to the potential risk of pollution during ship to ship transfer of oil cargoes at sea should be considered by the BLG Sub-Committee taking into account the principle of international maritime law, for example, UNCLOS, and, during consideration by the BLG Sub-Committee, the rights and obligations of coastal and flag States should be the guiding principles.

7.3 The Sub-Committee recalled that BLG 10 had agreed that the proposed regulations should apply not only in the territorial sea, but also in the Exclusive Economic Zone or in the high seas, as appropriate, taking into account the provisions of UNCLOS (BLG 10/19, paragraph 15.16). The delegation of the United Kingdom stated, in this respect, that the proposed regulations should apply beyond the boundary of the territorial sea only.

7.4 The Sub-Committee also recalled that BLG 10 had established a Correspondence Group which was asked to: develop a draft new Chapter 8 for MARPOL Annex I; explore any necessary additional generic requirements for special areas and for PSSAs while noting that a total ban in such areas was considered inappropriate; consider whether different requirements should apply to STS bunkering operations; and consider advantages and disadvantages of including FPSOs and FSUs in the scope of the new regulations.

7.5 Furthermore, BLG 10 had agreed to invite MEPC to consider: whether STS transfers of Noxious Liquid Substances should be subject to the proposed regulations for STS operations at sea; and also whether the proposed amendments should be referred to the Legal Committee for ensuring consistency with international law. The Sub-Committee recalled that MEPC 55 had agreed that at this stage there was no justification to expand the scope of this work to include Noxious Liquid Substances and also had agreed with the opinion that the Legal Committee should not be treated as a dumping ground but instead when proposed new legislation is to be discussed, delegations to MEPC should include the necessary legal expertise.

Outcome of correspondence group

7.6 The Sub-Committee noted that four documents had been submitted under this agenda item: BLG 11/7 (Spain as co-ordinator of the correspondence group) with the report of the correspondence group; BLG 11/7/1 (ICS, IADC, BIMCO, INTERTANKO, IPTA and OCIMF), BLG 11/7/2 (Australia) and BLG 11/7/3 (Belgium) with comments on the outcome of the correspondence group.

7.7 Spain briefly introduced document BLG 11/7 noting that the correspondence group comprised of 21 Member States and five observer delegations. Annex 1 to the report contained the proposed draft new Chapter 8 to MARPOL Annex I. Paragraph 42 of the report listed 12 action points awaiting the Sub-Committee's decision. Most of these items related to matters which the correspondence group was unable to resolve and which had led to text within square brackets. It was noted that a majority of the group had agreed that the requirements for STS bunkering operations had certain peculiarities, and therefore some sections of the chapter were adjusted to make it applicable also to bunkering operations. Furthermore, while a majority of delegations had agreed on the need to regulate oil transfer operations involving FPSOs and FSUs, several delegations could not agree, and therefore this aspect had been placed between square brackets for the Sub-Committee to resolve.

7.8 ICS, on behalf of the industry co-sponsors, briefly introduced document BLG 11/7/1. ICS and the co-sponsors were of the view that the comments submitted by ICS and OCIMF had not been sufficiently reflected in the report of the correspondence group. There was concern that the draft regulations unnecessarily complicated practical operational requirements and set unacceptable legal precedents without any compelling need for the proposed actions. The industry maintained that ship-to-ship transfers have demonstrated in practice a good safety record and that the existing IMO guidelines ("Manual on Oil Pollution, Section I – Prevention", currently under review), together with the industry's guidelines on best practice, adequately addressed the subject. The industry also stated that it could not support the inclusion of bunkering operations and of operations involving FPSOs and FSUs in the new chapter. The industry then proposed an alternative set of four regulations to replace those in the report of the correspondence group.

7.9 Australia, while introducing document BLG 11/7/2, considered that a number of fundamental issues still needed to be decided and it may have therefore been premature to convene a drafting group at this session of the Sub-Committee for finalizing the text of the regulations. Australia discussed the powers of coastal and flag States and proposed an additional regulation for ship-to-ship oil transfer operations on the high seas (outside the EEZ), requiring notification to the flag State and consultation with any coastal States whose Exclusive Economic Zones are within a certain distance of the proposed location of the transfer. Australia proposed that a coastal State may exempt certain operations on the basis of vessel size, oil type, oil quantity or a combination of these, if that State was satisfied that the operations were being conducted routinely to high safety and environmental standards. Australia also expressed its preference for the industry's existing checklist as compared to the draft checklist contained in the report of the correspondence group (draft appendix IV).

7.10 Belgium introduced document BLG 11/7/3 which provided clarifications to some of the points it had contributed in the report of the correspondence group. Belgium underlined the importance of the subject and stated that it was vital that the rules which advocate best practice were consistent with UNCLOS. Belgium also made the point that ship-to-ship oil transfers and bunkering at sea had routinely and safely taken place in the last 20 years in compliance with the IMO guidelines "Manual on Oil Pollution, Section I – Prevention" and the industry best practice guidelines "Ship to Ship Transfer Guide – Petroleum". Belgium also stressed that, should new regulations emerge, or should the wish for new regulations be confirmed, these should aim to close existing loopholes, if any, and not to jeopardize best practices.

Discussion

7.11 A general discussion then took place on the report of the correspondence group by Spain and on the papers by ICS *et al*, Australia and Belgium commenting on the outcome of the correspondence group. During the discussion all delegations who took the floor thanked Spain, the co-ordinator, and the participants of the correspondence group for all their work on what was a particularly difficult issue because of the very divergent views on the application and on the nature of regulations to be devised.

7.12 In the ensuing discussion many delegations concurred that whereas the best practices established by the standards contained in IMO's "Manual on Oil Pollution – Section I Prevention", as amended, and the ICS and OCIMF "Ship to Ship Transfer Guide, Petroleum" were recognized as having been responsible for the good record of oil transfer operations between ships at sea, on the other hand the delegations did not consider that self-regulation should continue to apply. Instead, they felt that the same best practice standards should be mandated through the proposed new chapter 8 to Annex I of MARPOL.

7.13 The delegations of Panama, Greece and the Cook Islands, on the other hand, stressed that: no compelling need had been established for the introduction of the proposed new regulations; no information had been provided following the request of the twenty-fourth session of the Assembly for data on incidents from ship-to-ship transfer operations; and furthermore, chapter 7 of the ISM Code already mandates the establishment of procedures for the preparation of plans and instructions, including checklists as appropriate, for key shipboard operations concerning the safety of the ship and the prevention of pollution.

7.14 Several delegations noted that the proposed draft regulations were unclear as to their scope of application, and in particular as to the meaning of the term "at sea" used in draft regulation 40 in document BLG 11/7. It was recognized that unless there was clarity in the proposed regulations, legal difficulties could arise and furthermore there was concern that some provisions in the proposed regulations may not be in line with UNCLOS. Whereas it was proposed by the delegation of Argentina that the issues should be addressed by the Legal Committee, the Sub-Committee recalled the Committee's decision (MEPC 55/23, paragraphs 10.78 and 10.79) not to treat the Legal Committee as a "dumping ground", but instead when proposed new legislation is to be discussed under the MEPC's remit, delegations to the MEPC should include the necessary legal expertise. The delegation of the Bahamas suggested that legal questions could instead be addressed to the IMO's Legal Office for advice.

7.15 A number of delegations supported the position that the proposed new regulations should not apply to bunkering and that in fact most bunkering operations, including those taking place inside port areas, involve a ship-to-ship transfer. The inclusion of bunkering operations under the proposed regulations would thus be unduly burdensome. The delegation of Sweden, however, noted that although bunkering spills tend to involve small quantities of pollution, nevertheless their accumulated effect can be serious and for that reason in the Baltic ships are required to be anchored when carrying ship-to-ship operations.

7.16 ICFTU noted that paragraph 11 of document BLG 11/7/2 by Australia recognized that FPSOs and FSUs are included in the definition of "ship" in Article 2 of the MARPOL Convention. ICFTU stated its concerns over such vessels operating in Australia which are able to ignore the provisions of SOLAS, STCW and ISM when moored. In this way the operating companies are able to reduce maritime crews onboard these ships, with the consequence being

that these vessels are not kept in a fully operational condition to function safely on release in an emergency situation.

7.17 The delegation of Australia thanked ICFTU for their comments but pointed out that document BLG 11/7/2 had not proposed an exemption for FPSOs and FSUs. Instead, the proposal was to allow a coastal State to exempt particular vessels and/or operations on the basis of vessel size, oil type, quantity of oil for transfer, or a combination of these. The agenda item here was about amendments to MARPOL while the application to FPSOs and FSUs is set out in resolution MEPC.139(53), and this resolution may need to be looked at during the work on ship-to-ship transfers. Australia suggested that the issue raised by ICFTU may be more appropriately addressed at MSC in relation to SOLAS and STCW.

7.18 The delegation of Norway suggested that instead of introducing some detailed regulations in Annex I, the Sub-Committee should consider introducing a generic regulation which would simply state that ships involved in ship-to-ship transfers shall have developed a plan based on guidelines developed by the Organization. Furthermore, whilst this regulation was through the amendment process, the Organization would have ample time to complete the revision of its own “Manual on Oil Pollution – Section I, Prevention”.

7.19 In the ensuing discussion most delegations pointed out that the draft chapter 8 proposed by the correspondence group was in need of substantive revision, which was not work for a drafting group. The Sub-Committee agreed to Norway’s suggestion for simplified regulations which would make reference to best practice standards as defined in IMO’s “Manual on Oil Pollution – Section I Prevention” and in ICS and OCIMF’s “Ship-to-Ship Transfer Guide, Petroleum”.

7.20 The delegation of Spain, as co-ordinator of the intersessional correspondence group, expressed disappointment that the debate on the outcome of the work of the group (BLG 11/7) had been carried out on the basis of general comments without actually coming down to the action points that the group had invited the Sub-Committee to consider.

7.21 The delegation of Spain, as co-ordinator of the correspondence group, expressed the view that the correspondence group had been established by BLG 10 with the clear and duly approved mandate to develop draft amendments for Annex I of the MARPOL Convention on the basis of the document submitted by Spain and Mexico and documents submitted by other Member States and non-governmental organizations; it was those documents that had provided the basis for the group’s work.

With respect to certain interventions, the delegation of Spain pointed out that the understanding that the draft amendments to MARPOL Annex I prepared by the correspondence group contained no reference to UNCLOS did not have merit as UNCLOS had been cited on several occasions during the months spent in preparing the final document. Concerning one delegation’s statement about a supposed lack of statistical information to justify the need for amendments to MARPOL Annex I, the Spanish delegation wished to make clear that the matter had already been resolved by MEPC 55, when its Chairman was of the view that the information being requested was already provided in the information that Spain had submitted on spills sustained. As to the comments of another delegation that no new regulations were needed since a chapter of the ISM Code already dealt with this matter, the delegation of Spain stated that the ISM Code is simply a code, and that there was nothing to prevent IMO from developing regulations on any subject, even if the Code addresses it. The regulations were in fact intended for use in those cases where use of the Code was insufficient. Finally, the delegation of Spain said it was regrettable that all

the work done by the group over a period of months had not once been discussed in plenary by the Sub-Committee, even if only to see which aspects could be developed further.

7.22 Following extensive consideration of the issue, the Sub-Committee invited the MEPC to extend the target completion date of the item to 2008 and established a correspondence group on Amendments to MARPOL Annex I for prevention of marine pollution during oil transfer operations between ships at sea, under the co-ordination of Denmark*, with the following terms of reference:

- .1 develop draft mandatory regulations for the prevention of marine pollution during oil transfer operations between ships at sea as a new chapter 8 in MARPOL Annex I by using document BLG 11/7/1 as base document. In doing so, the correspondence group should:
 - .1 take into account annex 1 to document BLG 11/7 and other relevant submissions to BLG 11;
 - .2 have regard to an essential element of the regulations being compliance with a plan to govern ship to ship transfers, and consider whether a plan should be approved by the Administration; and
 - .3 ensure that such a plan should be at least as stringent as the standards contained in IMO's "Manual on Oil Pollution – Section I Prevention"¹, as amended and the ICS and OCIMF "Ship-to-Ship Transfer Guide, Petroleum";
- .2 identify some key prescriptive requirements in the regulations but limited to those items which are essential;
- .3 solicit, collect and compile opinions and comments from participants on the following significant legal and policy issues:
 - .1 geographic area of application of the regulations;
 - .2 application of the regulations to bunkering;

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¹ The "Manual on Oil Pollution – Section I Prevention" is currently being revised by MEPC's OPRC-HNS Technical Group. The Secretariat will provide a usable text of the parts referring to ship-to-ship transfer, as soon as it has been cleared for use by the sixth session of the OPRC-HNS Technical Group, noting that the definitive text would not have been approved yet by the MEPC.

- .3 application of the regulations to FPSOs and FSUs; and
- .4 any other issues identified by the correspondence group;
- .4 formulate any legal questions for the Organization's Legal Office to provide advice to BLG 12, as appropriate; and
- .5 submit a report to BLG 12.

8 OIL TAGGING SYSTEMS

8.1 The Sub-Committee recalled its earlier decision at BLG 8, when the item had been on the agenda but no documents had been submitted, that it should deal with the issue at a future session and had retained it in the work programme. The Sub-Committee, having further recalled that BLG 10 had included the item in the provisional agenda for BLG 11 in the understanding that, if again, no document would be submitted on the issue, then the item should be deleted from the work programme.

8.2 Having noted that no document had been submitted on the item at this session of the Sub-Committee, and that paragraph 3.15 of the Committees' Guidelines which states that when considering the work programme the Sub-Committee should seek the Committee's advice in case of items for which no submissions have been received for two consecutive sessions, the Sub-Committee invited the Committee to delete the item from the Sub-Committee's work programme.

9 GUIDELINES ON OTHER TECHNOLOGICAL METHODS VERIFIABLE AND ENFORCEABLE TO LIMIT SO_x EMISSION

9.1 The Sub-Committee recalled that the MEPC had agreed to retain the item on its work programme as a low-priority item during the revision process of MARPOL Annex VI.

9.2 The Sub-Committee noted the view that it would be convenient to review the issue at future sessions, and agreed to retain the item on its work programme for further consideration at the appropriate time.

10 APPLICATION OF REQUIREMENTS FOR THE CARRIAGE OF BIO-FUELS AND BIO-FUEL BLENDS

Method for establishing carriage requirements for bio-fuel blends

10.1 The Sub-Committee recalled that this is a new agenda item that was added to the work programme as a high priority item as a result of discussions at MEPC 55, with a target completion date for this item of 2008.

10.2 The Sub-Committee noted that bio-fuels are being shipped in increasing quantities worldwide and that these products are often carried blended with mineral fuel. In such cases, the question arises whether the blended product should be carried under MARPOL Annex I or Annex II.

10.3 The Sub-Committee considered document BLG 11/10 (United Kingdom, Sweden and IPTA), concerning a proposed method for dealing with such blends which followed up on document BLG 10/3/9 which proposed interim guidance to assist in the shipment of these products. With regard to the latter, one delegation, based on experience and use of blended bio-ethanol by industry, proposed that a maximum limit of 25% bio-ethanol be considered as a cut-off for the transportation of the product under MARPOL Annex I.

10.4 As the Working Group did not have time to consider the issue of bio-fuels and bio-fuel mixtures at this session, the Sub-Committee noted the decision taken at BLG 10 (BLG 10/19, paragraphs 3.5 and 3.7) regarding the carriage of bio-fuels and its mixtures, which permits as an interim measure, the carriage of bio-fuels until such time that the method for establishing the carriage requirements for bio-fuels outlined in document BLG 11/10 can be finalized.

10.5 The majority of delegations agreed that the proposal outlined in document BLG 11/10 can serve as a basis for further development of clear guidelines with regard to the transport of such products. In this regard, it was noted that the proposal falls within the scope of MARPOL Annex II.

10.6 It was further noted that the proposal uses the revised Guidelines for the Provisional assessment of liquid substances transported in bulk, reflected in MEPC.1/Circ.512, as a basis which Administrations and industry are familiar with.

10.7 One delegation could not support the proposal as it sets higher requirements for bio-fuel blends to be carried under MARPOL Annex I which was inconsistent with the guidance previously considered at BLG 10. These higher limits could lead to an increased safety and pollution risk.

10.8 The Sub-Committee tasked the ESPH Working Group to review the proposal and, based on the progress made, to consider whether to hold further discussions at its intersessional meeting later this year, if appropriate.

Renewable diesel oil

10.9 The Sub-Committee considered document BLG 11/10/1 (Finland), proposing that “renewable diesel oil”, derived from the conversion of vegetable oils and animal fats through a “Biomass-to-liquid” process with the aid of hydrogen should be carried as a MARPOL Annex I product, since the product is comparable to mineral based diesel oil rather than biodiesel. Consequently, it was proposed to add renewable diesel oil to the List of Oils in Appendix 1 of MARPOL Annex I and to add a definition of renewable diesel oil to regulation 1 of MARPOL Annex I.

10.10 A few delegations expressed the view that the matter was of a political nature and, hence, the Sub-Committee was not the appropriate body to deal with such an issue.

10.11 After extensive deliberation by the Sub-Committee, the following points were made:

- .1 the data submitted are not sufficient to make an informed decision and recommendation to MEPC on whether the product should be carried under MARPOL Annex I or II;

- .2 a solution to this issue is not found through an amendment to the definition of oil in MARPOL Annex I;
- .3 although the product in question is referred to as renewable diesel, it is in fact made up of products that have been evaluated under MARPOL Annex II and have long been carried under the provisions of Annex II. To suggest that individual products could be picked at random out of Annex II and transferred to Annex I is a radical departure from the procedures for evaluation developed under MARPOL Annex II and hence which put into question the very basis of Annex II; and
- .4 if carrying renewable diesel oil under MARPOL Annex I was to ensure sufficient tanker capacities, no data have been presented to illustrate that sufficient Annex I tanker capacity exists. Or, conversely, whether there is or would be insufficient Annex II tonnage.

10.12 The Sub-Committee, noting that the above views were shared by the majority of delegations, agreed to recommend that in the first instance data sheets for renewable diesel oil covering a range of compositions should be submitted to the GESAMP/EHS Working Group so that an evaluation can be carried out following which an informed technical decision can be made. This would be analogous to the approach taken with pyrolysis gasoline which is also composed of a complex hydrocarbon mixture.

10.13 One delegation noted that document BLG 11/10/1 also raised the question of the possible need to review MARPOL Annex I and Annex II for harmonization purposes in order to facilitate the assignment of the appropriate conditions of transport for new developed products. However, it was pointed out that such a review is outside the remit of the Sub-Committee and would entail a request for the establishment of a new programme item by the parent Committee.

11 CONSIDERATION OF IACS UNIFIED INTERPRETATIONS

Location of paint lockers within the cargo block

11.1 The Sub-Committee noted that FP 51 had considered IACS unified interpretation SC 201 on Location of paint lockers within the cargo block (FP 51/9), in which IACS revised the unified interpretation SC 201 after having considered the views expressed at FP 50 on its submission (FP 50/11/2), in particular, that there was no justification for the interpretation since the SOLAS requirements were clear on this issue, and noted that IACS had decided to withdraw the first revision of SC 201 since there was no consensus on the matter and prepared a revised text to ensure a harmonized application of both the relevant SOLAS and IBC Code regulations.

11.2 The Sub-Committee also noted that FP 51, having considered document FP 51/9 and the views expressed on the matter, had prepared an appropriate unified interpretation and the associated MSC circular, as set out in document FP 51/19, annex 9, whereby paint lockers, regardless of their use, should not be located above the tanks and spaces, defined in SOLAS regulation II-2/4.5.1.2, in case of oil tankers and the cargo area, in case of chemical tankers, for submission to MSC 83 for approval.

Admissible distances for entrances, air inlets and openings in the superstructures of tankers

11.3 The Sub-Committee noted that FP 51 had considered documents FP 51/9/4 and FP 51/9/7 (IACS), addressing acceptance criteria for the location of access doors to spaces facing the cargo

area, and had agreed that a single comprehensive approach should be taken to harmonize the admissible distances required in the 1974 SOLAS Convention and the IBC and IGC Codes for entrances, air inlets and openings in the superstructures of tankers, taking into account publication IEC 60092-502, the unified interpretations contained in MSC/Circ.474, MSC/Circ.1120 and MSC/Circ.1203 and document FP 51/9/4. Having decided that a new item should be established in the FP Sub-Committee's work programme to consider this matter in detail, FP 51 agreed to a justification for a proposal for the new work programme item, as set out in document FP 51/19, annex 6, for consideration by MSC 83.

11.4 Having noted that, as per the justification prepared by FP 51, the work should be able to be accomplished by the FP Sub-Committee and the BLG Sub-Committee, if requested by the FP Sub-Committee, the Sub-Committee invited delegations to follow the relevant developments at the FP Sub-Committee and to provide contribution to the consideration of the agenda item as and when deemed appropriate.

Pump-rooms intended solely for ballast transfer or fuel oil transfer

11.5 The Sub-Committee recalled that BLG 10, having considered document BLG 10/9/1 (IACS), concerning an interpretation of SOLAS regulation II-2/4.5.1.1 with regard to pump-rooms intended solely for ballast transfer or fuel oil transfer, had agreed to a draft MSC circular on Interpretation of SOLAS regulation II-2/4.5.1.1 (BLG 10/19, annex 9), for submission to MSC 82 for approval, which agreed to refer it to FP 51 for consideration and subsequent submission to MSC 83 for approval (MSC 82/24, paragraph 9.10).

11.6 The Sub-Committee noted that FP 51, having considered the above interpretation prepared by the Sub-Committee, decided to refer the matter to the FP Sub-Committee Correspondence Group on Measures to Prevent Fire in Engine-Rooms and Cargo Pump-Rooms for detailed consideration and invited the MSC to note the aforementioned decision.

11.7 Having noted the above mentioned developments, the Sub-Committee invited interested delegations to contribute to the work of the correspondence group in the context of matters falling under the purview of the Sub-Committee.

IACS interpretation GC 11 on loading of Cargo C tanks

11.8 The Sub-Committee considered document BLG 11/11 (IACS) provided IACS Unified Interpretation GC 11 regarding loading of type 'C' cargo tanks whereby, regardless of the date of construction of the ship, type C cargo tanks can be loaded in accordance with the provisions of paragraph 15.1.5 or, alternatively, to the provisions of paragraph 15.1.2 or, if allowed by the administration, to the provisions of paragraph 15.1.15 of the IGC Code and agreed with it as set out in annex 9.

12 CASUALTY ANALYSIS

Casualty-related data

12.1 The Sub-Committee noted that MSC 82, in order to assist the Organization in receiving the information needed on casualties and noting MEPC 55's concurrent decision, had reminded Member States to:

- .1 ensure that the information on reports on marine casualties and incidents are provided to the Secretariat in accordance with the reporting requirements and the revised format annexed to MSC-MEPC.3/Circ.1, bearing in mind that information can now be directly reported by Member States on GISIS, including the facility to attach the electronic version of full investigation reports;
- .2 provide information on whether human element was an underlying cause of a casualty or injury;
- .3 provide the Secretariat with information on the number of fishing vessels, fishermen, total losses and lives lost, so that updated information on the matter can be incorporated in the relevant circulars;
- .4 provide the Secretariat with preliminary information on casualties derived from RCCs, according to MSC/Circ.802 – MEPC/Circ.332, to enable the Organization to provide its Member States with timely and accurate information on casualties;
- .5 indicate in the reports of investigations into casualties whether fraudulent certificates have been involved; and
- .6 use the available direct reporting facilities of the IMO Global Integrated Shipping Information System (GISIS) module on casualty.

Measures to prevent explosions on oil and chemical tankers transporting low flash point cargoes

12.2 The Sub-Committee recalled that BLG 10, having noted document BLG 10/10 (CEFIC, IACS, IAPH, ICS, INTERTANKO, IPTA and OCIMF), informing it that, during the deliberations of the Inter-Industry Working Group (IIWG), it was agreed that, in view of the complexity of the casualties and the time taken to complete the investigations, it would be premature to make interim recommendations to the relevant Sub-Committees. BLG 10 had noted information by ICS that, in the meantime, the IIWG had completed its report, which had been submitted to MSC 81 for appropriate action (MSC 81/8/1 and MSC 81/INF.8). In view of the above, BLG 10 agreed that no action on the subject was necessary at that point in time.

12.3 The Sub-Committee noted that MSC 81 considered documents MSC 81/8/1 and MSC 81/INF.8 (ICS, IAPH, IACS, CEFIC, OCIMF, INTERTANKO and IPTA) containing the report of the IIWG, established to study the reported incidents of explosions on chemical and product carriers, which could not be finalized in time for prior consideration by FP 50, STW 37, DE 49 and BLG 10.

12.4 The Sub-Committee also noted that, in introducing the document, the representative of OCIMF, on behalf of the co-sponsors, indicated that the IIWG had concluded that the failure to follow procedures was the primary cause of the incidents in question and that the IIWG had established a Human Factors Task Group which is looking into ways of addressing this issue in the context of tankers. He further informed MSC 81 that the IIWG recommended that, as an additional safety measure, the MSC give consideration to amending SOLAS to provide for the application of inert gas to new chemical tankers and new product tankers of less than 20,000 dwt. With regard to the issue of inert gas systems to be fitted on board existing tankers (MSC 81/8/1, paragraph 14), MSC 81 noted the view that the recommended formal safety assessment (FSA) study and cost/benefit analysis should be carried out before decisions are made. Having debated

the issues, MSC 81, based on the recommendations listed in paragraphs 13 to 17 of document MSC 81/8/1, in conjunction with the corresponding paragraphs in document MSC 81/INF.8, took the decision to refer both documents to the joint MSC/MEPC Working Group on Human Element and to BLG 11, DE 50, FP 51, FSI 14 and STW 38 for review.

12.5 The Sub-Committee considered document MSC 81/8/1 which summarized the activities and conclusions of the IIWG formed to investigate fires and explosions on chemical and product tankers and intended to prevent recurrences of such incidents being taken by the industry and proposed measures for consideration by the MSC.

12.6 The Sub-Committee noted document MSC 81/INF.8 which provided information regarding the analysis of 35 incidents conducted by the IIWG and concluded that the most significant contributory factor to the incident causes was a failure to follow or understand cargo operation guidelines and procedures (at both shipboard and ship management level).

12.7 In the ensuing consideration of the issue, the Sub-Committee took into account that the Joint MSC/MEPC Working Group on Human Element, convened at MSC 82, had also considered the report of the IIWG and concluded that:

- .1 it was difficult to draw conclusive analysis from existing casualty reports due to the lack of human element considerations during these investigations, i.e. investigators asking the relevant questions to determine if the human element was a contributing factor in the casualty;
- .2 the industry's review of its procedures and guidelines was a very positive step towards resolving the issue;
- .3 there was a need to review and strengthen requirements leading to Dangerous Cargo Endorsements (DCEs); and
- .4 Member States should provide reports of casualty investigations to the FSI Sub-Committee expeditiously with a view to arriving to constant and consistent analysis to ensure that such accidents and incidents do not recur.

12.8 While deliberating the issue, the Sub-Committee noted that FP 51, in considering the aforementioned report of IIWG (MSC 81/8/1 and MSC 81/INF.8), which recommended that the MSC give consideration to amending SOLAS chapter II-2 to provide for the application of inert gas systems to new oil tankers of less than 20,000 dwt and new chemical tankers, had noted the views of several delegations and observers that the inert gas systems would reduce the risk of explosion and, therefore, should be required, while also noting the view that the value of operational measures should not be underestimated, taking into account that the most significant contributory factor to the casualties studied by the IIWG was a failure to follow or understand cargo operation guidelines and procedures (at both the shipboard and ship management level). In that context, FP 51 considered document MSC 82/21/15 (Norway) proposing to develop more user-friendly regulations for inerting of tanks for new and existing tankers when handling and transporting low flash point chemicals and petroleum products. FP 51 also noted the comments by Singapore (MSC 82/21/20), and in particular, its support for a new work programme item for the BLG Sub-Committee, and the views of several delegations and observers that any solution should be holistic in nature and take into account the costs associated with the full range of damage to both the ship and the environment.

12.9 The Sub-Committee also took into account that FP 51 had noted that during the discussion, the results for the preliminary FSA study carried out by Japan (FP 51/10/1) on the application of requirements of inert gas systems to tankers of less than 20,000 dwt, which was based on casualty data and ship type data for the period of 1978 to 2005, as supplied by Lloyd's Register Fairplay, that the study concluded that the installation of inert gas systems on tankers of less than 20,000 dwt has not been justified by the analysis. Several delegations had pointed out that the preliminary study only calculated the gross costs for averting a fatality versus the net costs, which include damage to the surrounding area and the environment.

12.10 The Sub-Committee noted that, following the consideration of the proposals and recommendations contained in the above documents, FP 51 had discussed at length how to proceed with the matter and, having recognized that it would require detailed consideration, taking into account the complexity of the matter, including the disadvantages (i.e. affixation) and potential benefits (i.e. reducing the risk of explosion) of application of inert gas systems and the practical safety-related implications to the operation of chemical tankers and product tankers of less than 20,000 dwt, had agreed to recommend to the MSC to include, in the FP Sub-Committee's work programme, a new item on "Measures to prevent explosions on oil and chemical tankers transporting low-flash point cargoes", with two sessions needed to complete this item, in co-operation with the BLG and DE Sub-Committees. FP 51 had agreed that under the proposed work programme item, the FP Sub-Committee should first consider measures for new ships; and agreed that, depending on the outcome of the consideration of the aforementioned measures, the FP Sub-Committee could consider the appropriate measures for existing oil and chemical tankers transporting low-flash point cargoes.

12.11 The Sub-Committee particularly noted that, at DE 50, in the course of discussion, several delegations, noting that the prime cause of the incidents was failure to follow established operational procedures, stressed the importance of addressing the human element in the context of the issue, and that this would merit special consideration.

12.12 Having recalled the background information, documents MSC 81/8/1 and MSC 81/INF.8 and the outcomes of Joint MSC/MEPC Working Group on Human Element, FP 51 and DE 50, the Sub-Committee noted the deliberation on the study on incidents of explosions on chemical and product tankers; concurred with the outcome of the Joint MSC/MEPC Working Group on Human Element; expressed concern at the apparent failure to follow or understand cargo operation guidelines and procedures (at both shipboard and ship management level) as the most significant contributory factor to the incident causes; and agreed that, before a definitive version of the view of the Sub-Committee could be provided, it would be appropriate to await the outcome of the relevant casualty report, report of the IIWG Human Factors Task Group which was looking into ways of addressing the primary cause of the incidents that is failure to follow procedures, and that of the FP Sub-Committee.

12.13 The Sub-Committee noted, on the basis of the information provided by the observer of ICS, that the IIWG in its study was taking into account the outcome of the casualty report and also noted the concern expressed by some delegations on a number of similar accidents that had taken place in the past on chemical and product tankers of less than 20,000 dwt which might be due to the fact that such tankers are not subject to the mandatory requirement of installation of inert gas systems. While on the subject, the Sub-Committee urged Member States to submit the casualty reports on accidents as soon as possible to the Organization so that these may be evaluated to establish the cause of accidents and lessons to be learnt from them. In that context, the Sub-Committee also expressed the view that casualty reports need to be analysed as early as possible.

Requirements for hydrocarbon gas detection systems on double-hull oil tankers

12.14 The Sub-Committee noted that, following consideration of document MSC 82/21/12 (Austria *et al*) MSC 82 decided to include a new item on “Fixed hydrocarbon gas detection systems on double hull oil tankers” in the FP Sub-Committee’s work programme, and had agreed that the BLG Sub-Committee should co-operate on the above issue, as necessary and when requested by the FP Sub-Committee.

12.15 The Sub-Committee also noted that FP 51 had instructed the correspondence group it had established to give preliminary consideration to the proposal contained in document MSC 82/21/12 and to submit the results under the relevant agenda item to FP 52. In this context, FP 51 also invited Member Governments and international organization to submit comments and proposals to FP 52.

12.16 Having taken into consideration the relevant decisions of MSC 82 and FP 51, the Sub-Committee requested Member Governments and international organizations to follow the developments which would take place in the future sessions of the FP Sub-Committee and, when requested by that Sub-Committee, to consider submitting proposals to the BLG Sub-Committee on matters falling under its purview.

13 WORK PROGRAMME AND AGENDA FOR BLG 12

Work programme of the Sub-Committee and provisional agenda for BLG 12

13.1 Taking into account the progress made during the session and the provisions of the agenda management procedure, the Sub-Committee reviewed its work programme and the draft agenda for the next session (BLG 11/WP.8) and prepared a draft revised work programme and draft provisional agenda for BLG 12. While doing so, the Sub-Committee agreed to invite the MSC and the MEPC, as appropriate, to:

- .1 delete the work programme item H.2 – Oil tagging systems, as no document had been submitted to the Sub-Committee for two consecutive sessions;
- .2 extend the target completion date of the following work programme items:
 - .2.1 H.3 – Development of provisions for gas-fuelled ships, to 2009;
 - .2.2 H.4 – Development of guidelines for uniform application of the BWM Convention, to 2008;
 - .2.3 H.6 – Amendments to MARPOL Annex I for the prevention of marine pollution during oil transfer operations between ships at sea, to 2008; and
 - .2.4 H.6 – Review of MARPOL Annex VI and the NO_x Technical Code, to 2008;
- .3 amend the priority of the work programme item H.5 – Guidelines and other technological methods verifiable or enforceable to limit SO_x emissions, to L.1, replace the number of sessions needed for completion of the item to two sessions and delete it from the provisional agenda for BLG 12;

- .4 renumber the work programme items accordingly.

13.2 The MSC and the MEPC were invited to approve the draft revised work programme and the draft provisional agenda for BLG 12, as set out in annex 10.

Arrangements for the next session

13.3 The Sub-Committee agreed to establish at its next session working/drafting groups on the following subjects:

- .1 Evaluation of safety and pollution hazards of chemicals and preparation of consequential amendments;
- .2 Development of guidelines for uniform implementation of the 2004 BWM Convention;
- .3 Review of MARPOL Annex VI and the NO_x Technical Code;
- .4 Development of provisions for gas-fuelled ships; and
- .5 Amendments to MARPOL Annex I for the prevention of marine pollution during oil transfer operations between ships at sea,

and agreed that information on the arrangements for BLG 12, concerning the allocation of working and drafting groups, would be issued by the Chairman after MEPC 56 and MSC 83.

13.4 The Sub-Committee established correspondence groups on the following subjects, due to report to BLG 12:

- .1 Development of provisions for gas-fuelled ships; and
- .2 Amendments to MARPOL Annex I for the prevention of marine pollution during oil transfer operations between ships at sea.

Intersessional meetings

13.5 The Sub-Committee noted that MSC 82 had approved the intersessional meeting of the Working Group on Evaluation of Safety and Pollution Hazards of Chemicals (ESPH Working Group) in 2007, as decided in principle by MEPC 55 and to be confirmed by MEPC 56.

13.6 The Sub-Committee, having recalled its respective decision under agenda item 3 (see paragraph 3.23.15), invited MSC 83 and MEPC 56 to approve the holding of the intersessional meeting of the ESPH Working Group in 2008.

Date of the next session

13.7 The Sub-Committee noted that its twelfth session had been tentatively scheduled to take place from 4 to 8 February 2008 at a venue to be announced in due course.

14 ANY OTHER BUSINESS

Device to prevent passage of flame into cargo tanks

14.1 The Sub-Committee considered the proposal by Denmark (BLG 11/14) which provided information on discrepancies between approved cargo lists and service restrictions of devices to prevent the passage of flame and expressed concern that the requirements in MSC/Circ.677 on Revised standards for the design, testing and locating of devices to prevent the passage of flame into cargo tanks in tankers, paragraph 1.2.3, are neglected to an unknown extent at survey and certification of chemical tankers constructed and certified to carry flammable chemicals with a flashpoint of less than 60°C when equipped with devices to prevent the passage of flame into cargo tanks. The Danish Maritime Authority, during their review of the cargo lists for specific Certificates of Fitness for Carriage of Dangerous Chemicals in Bulk, observed, in particular, that some of the listed products had a Maximum Experimental Safe Gap (MESG) of less than 0.9 mm and that the ship devices to prevent entry of flame into the cargo tanks were only tested and certified for products with an MESG of not less than 0.9 mm.

14.2 In the ensuing discussion, the Sub-Committee took into account that FP 51, having considered the proposals in documents FP 51/18 (Denmark) and FP 51/18/1 (IACS) regarding matters related to a device to prevent passage of flame into cargo tanks, had considered that the Revised standards (MSC/Circ.677) adequately addressed this matter.

14.3 The delegation of Denmark pointed out that during port State controls, the Danish Administration had ascertained that ships may hold an International Pollution Prevention Certificate for the carriage of noxious liquid substances in bulk, containing products for which the safety equipment of the vessel was not constructed. They quoted examples whereby, the devices fitted to prevent the passage of flame into the cargo tanks, were not designed to operate within the prescribed limits of all the products on the list. In other words, these ships had certificates that gave the impression that they were capable of transporting products, which in reality would require modifications to the vessel beforehand. They expressed concern that when such certificates are issued, they may lead to misunderstandings and perhaps even accidents. In their opinion it was also in contradiction with the preconditions for issuing such international certificates and may jeopardise their mutual recognition.

14.4 The Sub-Committee noted that IACS, when applying the provisions of paragraph 1.2.3 of MSC/Circ.677 to chemical carriers regarding Devices used for chemical carriers dedicated to the carriage of products with MESG less than 0.9mm should be tested with appropriate media applied the literal meaning of this phrase on the following four points:

- .1 the use of dedicated trade, dedicated ships and dedicated tanks in the IBC Code and MARPOL Annexes I and II,
- .2 the discussions of the group of BCH and FP experts which developed MSC/Circ.677 in 1985. As recorded in BCH 15/WP.7, "Some Members strongly reaffirmed the dangers presented by blockage of devices to prevent the passage of flame when used in conjunction with products which would solidify or polymerize",
- .3 the discussions recorded in BCH 16/WP.9 (May 1986), where there were mixed views on the media to be used for testing of devices on chemical tanker or specific tanks of a chemical tanker dedicated to the carriage of a specific substance,

- .4 the discussions recorded in FP 32/WP.8 (Jan 1987) whereby it was agreed that special testing was not necessary except for those substances carried on dedicated ships.

Accordingly, for chemical carriers which load non-dedicated cargoes, the devices were tested and accepted by IACS with an MESH as determined per paragraph 3.1.3 of MSC/Circ.677 to take into account the risks identified by the BCH and FP Sub-Committees; that is to avoid clogging and passage of flame.

The observer of IACS highlighted that this literal meaning of paragraph 1.2.3 of MSC/Circ.677 by IACS was different from how FP 51 has interpreted its application such that regardless of whether the chemical carrier is dedicated, or not, to the carriage of substances with a MESH less than 0.9, the MESH of the device must correspond to the lowest MESH of the substances loaded.

In the above context, the Sub-Committee agreed that IACS may continue to apply its interpretation till such time the Sub-Committee was instructed to revisit the issue.

Natural gas hydrate pellet (NGHP) carriers

14.5 The Sub-Committee considered a proposal by Japan (BLG 11/14/2) which, expressing its concern on global warming and the understanding that the use of LNG is environmentally friendly, provided information on the new seaborne transportation system, that is natural gas hydrate pellet (NGHP) carriers, which would be cost effective and contribute towards a safer carriage of NGHPs.

14.6 In that context, the Sub-Committee noted that Japan had submitted a proposal (MSC 82/23/3) on the subject, informing MSC 82 of a national project by Japan concerning the production, transportation and re-gasification of NGHP and proposed that appropriate safety requirements for NGHP carriers should be developed by the Organization.

14.7 The Sub-Committee also noted that the above proposal by Japan was generally supported by MSC 82 (MSC 82/24, paragraph 23.8) and that the Committee had invited Japan to submit a proposal for new work programme item in accordance with the Guidelines on the organization and methods of work to MSC 83.

14.8 Having considered the information provided by Japan and the decisions of MSC 82, the Sub-Committee thanked Japan for the information provided and the effort put in in conducting the research and producing the report; expressed the Sub-Committee's support for the proposal and invited the delegation of Japan to submit a definitive version of the proposal, including a detailed plan of action on the work to be undertaken by this Sub-Committee (as co-ordinator), in co-operation with other Sub-Committees, including the DSC Sub-Committee, subject to the relevant decisions of MSC 83 (see paragraph 14.7).

Material Safety Data Sheets and requirements for protection of personnel involved in the transport of Annex I cargoes and marine bunker fuels containing toxic substances in all types of tankers

14.9 The Sub-Committee recalled that BLG 10, having considered issues relevant to the requirements for protection of personnel involved in the transport of Annex I cargoes and marine bunker fuels containing toxic substances in all type of tankers, in particular the reporting of Hydrogen Sulphide (H₂S) content and inhalation/dermal information, had decided not to amend

the Recommendation for material safety data sheets for MARPOL Annex I cargoes and marine fuel oils (resolution MSC.150(77)), since it adequately addressed the issues raised and was consistent with the GHS criteria, and agreed to proceed with the Material Safety Data Sheets (MSDS) mandatory for the transport of MARPOL Annex I cargoes and marine fuel oils. In that context, BLG 10 had agreed to the draft new SOLAS regulation VI/5-1 for submission to MSC 82 for approval with a view to a subsequent adoption.

14.10 The Sub-Committee noted that MSC 82 had approved draft new SOLAS regulation VI/5-1 (Material safety data sheets), set out in the annex of document BLG 11/14/6 on making the carriage of Material Safety Data Sheets (MSDS) mandatory for the transport of MARPOL Annex I cargoes and marine fuel oils, and had requested the Secretary-General to circulate the draft new regulation, in accordance with SOLAS article VIII, for consideration at MSC 83 with a view to adoption. In that context, MSC 82 had considered document MSC 82/9/1 (IBIA), expressing concern regarding some examples of ambiguity or inappropriate requirements for authoring of MSDS and, therefore, requesting a review of the aforementioned Recommendation to ensure a common understanding for an unambiguous implementation.

14.11 The Sub-Committee further noted that, having considered the issue, MSC 82 agreed to refer document MSC 82/9/1 (IBIA) to BLG 11, for consideration in conjunction with the draft SOLAS regulation VI/5-1 and advise MSC 83, as appropriate, for the Committee to take the advice into account when adopting the draft SOLAS regulation VI/5-1.

14.12 IBIA (BLG 11/14/4) recommended that draft SOLAS regulation VI/5-1 should be amended to require preparation of material safety data sheets (MSDS) in accordance with the current edition of ISO 11014 – Safety data sheet for chemical products, in place of IMO recommendations contained in resolution MSC.150(77) as the MSC resolution would require specialized MSDSs that are considered impractical by the bunker industry manufacturers and shippers.

14.13 INTERANKO (BLG 11/14/5), having considered the proposals by IBIA in their documents MSC 82/9/1 and BLG 11/14/1, was of the view that the concerns raised by IBIA were not new and were already discussed by BLG 10 and not accepted and as such, was of the view that BLG 11 should concur with the same conclusion taken at BLG 10 and recommended that MSC 83 should adopt SOLAS regulation VI/5-1 and the MSDS standard format as given in resolution MSC.150(77).

14.14 Following an extensive discussion on the item, the Sub-Committee decided to recommend to MSC 83 to adopt SOLAS regulation VI/5-1. However, the Sub-Committee was of the view that in the light of the developments taking place at the UN Sub-Committee of experts on the globally harmonized system of classification and labelling of chemicals, taking into account the provisions of ISO 11014, and other relevant developments and views, it would be appropriate to review the resolution on Recommendation for material safety data sheets for MARPOL Annex I cargoes and marine fuels (resolution MSC.150(77)) and as such, prepared a justification for a new work programme item on the review of the aforementioned resolution for consideration by MSC 83, set out in annex 11.

14.15 INTERTANKO, supported by Norway, indicated that, in their opinion, there was no need to conduct a review of resolution MSC.150(77) at this time as it adequately addresses best practices of health, safety and environmental protection and provides indeed a standard format while seeking a limited but essential number of data.

Use of heavy grade oil (HGO) on ships in the Antarctic area

14.16 The Sub-Committee recalled that MEPC 54 had considered a proposal by Norway to amend regulation 15 of MARPOL Annex I to prohibit the use and carriage of HGO in the Antarctic Sea. The MEPC agreed with the thrust of the proposal to give the Antarctic Sea extra protection from the risk of HGO discharges and spillages and invited Norway to submit a revised proposal to a future session of the BLG Sub-Committee, taking account of comments made at MEPC 54 (MEPC 54/21, paragraphs 6.1 to 6.3).

14.17 The Sub-Committee recalled also that the comments made at MEPC 54 related, *inter alia*, to the suggested inapplication of the HGO ban to search and rescue vessels and fishing fleet, and to the referral of HGO definition in the proposal to regulation 21 of Annex I which applies to cargo oil only thus leaving bunkers oil out of its scope.

14.18 In introducing document BLG 11/14/3, Norway indicated that in the the revised proposal it had taken into account those comments in respect of an exemption for search and rescue vessels and the definition for HGO; and adequate language had been included in the proposed amendments to regulation 15 of MARPOL Annex I accordingly. However, in its view, there was no adequate justification for allowing the use of HGO on board fishing vessels, or indeed on any other type of vessel operating in the Antarctic area.

14.19 The Sub-Committee held a debate in depth on the proposal by Norway. While many delegations supported the proposed amendments, others expressed concern on the following grounds:

- .1 the proposed definition for HGO, by being identical to that in regulation 21 of MARPOL Annex I after its recent amendment, would not allow the use of lubricating oil on board ships in the Antarctic Sea as lubricating oil is defined as a HGO for the purpose of that regulation;
- .2 if the risks to be avoided were those of collision or grounding, then the protected location of fuel tanks, rather than a total ban, would also achieve good results as regards the protection of the marine environment;
- .3 a total ban would bring practical difficulties for commercial shipping operating in the Antarctic area which had not been properly evaluated; and
- .4 the placing of the proposed amendment under regulation 15 of MARPOL Annex I on "Control of operational discharge of oil" was also questioned by some delegations, although it was recognized that it would not be easy to find its appropriate place in the regulations.

14.20 It was clarified that, given the clear and unambiguous language of article 3 of the 1973 MARPOL Convention, the proposed amendments, if eventually adopted, would not apply to warships, naval auxiliaries or other ships owned or operated by a State.

14.21 On the issue of protective location for the HGO tanks as an alternative to a total ban, as put forward by some delegations, the point was made that a single sinking in the Antarctic Sea of a ship with a significant amount of HGO on board, even protected by a double hull, would mean a catastrophe for the delicate balance of the marine environment in the area for many years to come.

14.22 Several delegations who expressed support for the proposal also called the attention of the Sub-Committee to the convenience of extending the same degree of protection to the Arctic waters.

14.23 The Sub-Committee agreed that the proposed amendments should not bring any consequential modification to the definition of HGO as presently worded in regulation 21 of MARPOL Annex I.

14.24 In concluding the debate, the Sub-Committee recognized that it could not solve the many issues associated with this proposal in the short time available for discussion given the fact that, despite majority support shown, there remained important issues that raised serious concerns for several delegations and industry observers.

14.25 The Sub-Committee agreed to inform the MEPC accordingly, seeking its guidance as to how to pursue this matter further.

Application of MARPOL Annex II regulation 4.1.3 to ships carrying unmodified oil and fats

14.26 The Sub-Committee noticed that it had dealt with this issue under agenda item 3 (see paragraphs 3.20 and 3.21).

Fire outbreak on ice-breaker “Almirante” Irizar

14.27 The delegation from Argentina brought to the attention of the Sub-Committee a serious fire outbreak incident suffered on Tuesday, 17 April 2007, by the Argentine ice-breaker **Almirante Irizar**, approximately 150 miles from the coast, while returning from Antarctica. On board training and the prompt response of ships in the vicinity to help those in distress were defining factors in avoiding any casualties. The delegation expressed its appreciation and gratitude to the masters and crews of the Uruguayan vessel **Magritte** and Panamanian flagged oil tanker **Scarlet bis** for their solidarity, professionalism and devotion to their duty and praised the master of the **Almirante Irizar** for ensuring the safety of everyone on board and the extinguishing of the fire before leaving the ship. They concluded that conclusions have not been drawn at this stage as the causes and consequences of the casualty have not been determined.

Reducing the Organization’s carbon footprint

14.28 The Director, Marine Environment Division, recalled that the Secretary-General, in his opening speech on Monday, had referred to the chosen theme for World Maritime Day 2007 as “IMO’s response to current environmental challenges” and that, as a first reaction, the Secretariat had put together a comprehensive environmental action plan which would be implemented throughout the year. In line with the current urgent need to address global warming through all available means, one of the initiatives under the plan consisted in exploring ways of reducing the Organization’s carbon footprint, by identifying the main carbon sources that feed into IMO (e.g., heating, electricity and travel) and determining possible reduction measures. Thus, the Secretariat would be considering the relative benefits of switching to bio-oil as heating fuel and of reducing consumption through energy efficiency programmes and heat recovery systems. In order to reduce electricity consumption, the use of energy-efficient light bulbs and management of lighting and equipment switch-off timing, together with the possible installation of solar panels and/or other renewable energy devices, would also be considered. In addressing air travel of IMO staff, the Secretariat would analyse the relative merits of using trains instead for short

displacements; trying to hold some of the meetings remotely through tele-conferencing facilities; and choosing airlines with the best environmental credentials. In addition to the above initiatives, the IMO Secretariat would continue seeking other ways of reducing its carbon footprint and remained ready and willing to consult with Member Governments and international organizations in order to share any successful experiences that might contribute to achieving that objective.

Expressions of appreciation

14.29 The Sub-Committee expressed appreciation to the following delegates and member of secretariat, who had recently relinquished their duties, retired or were transferred to other duties or were about to, for their invaluable contribution to its work and wished them a long and happy retirement or, as the case might be, every success in their new duties:

- Captain Carlos Salgado (Chile) (on return home);
- Dr. Jerzy Vonau (Poland) (on retirement);
- Mr. Gérard Gasc (France) (on transfer);
- Mr. Esteban Pacha (Spain) (on transfer);
- Mr. Fikret Hakgüden (Turkey) (on transfer);
- Captain Carlos Ormaechea (Uruguay) (on transfer); and
- Mr. Jean-Claude Sainlos (Secretariat) (on retirement).

Expressions of condolences

14.30 The Sub-Committee noted with deep shock, distress and sadness the untimely death, in October 2006, of the Maritime Safety Committee's Chairman, Mr. Igor Ponomarev, the Permanent Representative of the Russian Federation who had actively and tirelessly contributed to the work of the Organization for over 13 years. His short but vibrant life was dedicated to the objectives of the Organization on safe, secure and efficient shipping, which he served well with zeal, zest and enthusiasm. The Sub-Committee requested the delegation of the Russian Federation to convey the Sub-Committee's sincerest condolences and sympathy to the family, friends and colleagues of Igor Ponomarev.

14.31 With equal sadness, the Sub-Committee also learnt of the recent death of Captain Hans-Jurgen Roos of Germany, former Chairman of the SPI Working Group and delegate to many other IMO bodies, whose commitment to shipping was matched by his dedication to IMO's noble ideas. The Sub-Committee requested the delegation of Germany to convey the Sub-Committee's sincerest condolences and sympathy to the family, friends and colleagues of Captain Hans-Jurgen Roos.

15 ELECTION OF CHAIRMAN AND VICE-CHAIRMAN FOR 2008

15.1 The Sub-Committee, in accordance with the Rules of Procedure of the Maritime Safety Committee and the Marine Environment Protection Committee, unanimously re-elected Mr. Z. Alam (Singapore) as Chairman and Mr. S. Oftedal (Norway) as Vice-Chairman, both for 2008.

16 REPORT TO THE COMMITTEES

16.1 The Maritime Safety Committee is invited to:

- .1 note the progress made on the development of provisions for gas-fuelled ships, concur with the revised long-term action plan and, as the draft Interim guidelines on safety for gas-fuelled engine installations in ships have not been finalized at the session, extend the target completion date for the item to 2009 (paragraphs 6.17 and 6.19);
- .2 endorse the decision of the Sub-Committee regarding IACS Unified Interpretation GC 11 concerning loading of type 'C' cargo tanks (paragraph 11.8 and annex 9);
- .3 note the outcome of the Sub-Committee's deliberations on the study on incidents of explosions on chemical and product tankers, in particular the Sub-Committee's decision that it would be appropriate to await the outcome of the relevant casualty report, report of the IIWG Human Factors Task Group and that of the FP Sub-Committee (paragraph 12.12);
- .4 approve, subject to MEPC 56's concurrent decision, the proposed revised work programme of the Sub-Committee and the provisional agenda for BLG 12 (paragraphs 13.1 and 13.2 and annex 10);
- .5 approve, subject to MEPC 56's concurrent decision, the holding of an intersessional meeting of the ESPH Working Group (paragraph 13.6);
- .6 include, in the Sub-Committee's work programme, a new item on "Review of Recommendation for material safety data sheets for MARPOL Annex I cargoes and marine fuels", taking into account the justification for the proposal for the new item (paragraph 14.14 and annex 11); and
- .7 approve the report in general.

16.2 The Marine Environment Protection Committee is invited to:

- .1 endorse the Sub-Committee's agreement that issues relating to reported non-conformities with the requirements of MARPOL Annex II regulation 4.1.3, concerning carriage of unmodified oils and fats, are a matter for the MEPC and that Parties to the Convention should submit details of such non-conformities to the MEPC for its consideration as appropriate (paragraph 3.22);
- .2 endorse the Sub-Committee's agreement that, for the time being, the information on provisional assessments for tripartite agreements should be made available on the IMO public domain website by means of a new module in the GISIS application (paragraph 3.24.4);
- .3 approve the draft revised Guidance note and reporting form on cleaning additives (paragraph 3.24.6 and annex 1);
- .4 endorse the view that cleaning additives submitted at the intersessional meeting of the ESPH Working Group later this year and those submitted for BLG 11 should be re-submitted based on the revised guidelines finalized at this session (paragraph 3.24.7);

- .5 note that the Sub-Committee agreed to add the re-evaluation of the cleaning additives as a new future programme item for the ESPH Working Group and in this context, further agreed that the current information in annex 10 of the MEPC.2/Circular will cease to be valid three years after the date of adoption of the revised guidelines, i.e. 2010 (paragraph 3.24.8);
- .6 consider the views of the Sub-Committee regarding long-term funding for the work of the GESAMP/EHS Working Group, which may implicitly eliminate Option 3, and decide as appropriate (paragraphs 3.7 to 3.16 and 3.24.9);
- .7 note that an in-depth review of the anomalies in chapter 19 of the IBC Code needs specialized expertise and that the Sub-Committee invited delegations to send experts to the ESPH Working Group for the review (paragraphs 3.23.12 and .13);
- .8 approve, subject to MSC 83's concurrent decision, the holding of an intersessional meeting of the ESPH Working Group in 2008 (paragraph 3.23.15);
- .9 note that the Sub-Committee encouraged Member States to provide MEPC 56 with relevant information on their testing facilities for ballast water treatment systems which make use of Active Substances; and that it invited MEPC 56 to take into account the information provided in document BLG 11/4/6 (IACS) when considering issues related to those systems (paragraph 4.8);
- .10 consider the text proposed by ICS (BLG 11/4/14) with a draft MEPC resolution calling on States not to enforce the first application date of the D-2 standard for a limited period of time, and decide as appropriate (paragraph 4.11);
- .11 consider, with a view to adoption by an MEPC resolution, the draft Guidelines for ballast water exchange in the Antarctic Treaty area (paragraphs 4.19 and 4.20; and annex 2);
- .12 note that the Guidelines for ballast water sampling (G2) could not be finalized at the present session and that an updated text will be submitted by the Secretariat to BLG 12 for further consideration (paragraphs 4.32 to 4.35);
- .13 note the view that the statement that ships constructed between 1 January 2009 and the date of entry into force of the BWM Convention would not be required to meet the regulation D-2 standard until 2014 or 2016, according to their ballast water capacity, should be further examined by the MEPC (paragraphs 4.12 and 4.13);
- .14 consider the recommendation that any system which makes use of, or generates, Active Substances or free radicals during the treatment process to eliminate organisms in order to comply with the BWM Convention, should be evaluated by the GESAMP-BWWG, and decide as appropriate (paragraph 4.37.1);
- .15 consider the invitation to allocate time for a thorough consideration of the GESAMP-BWWG Methodology within the framework of the Ballast Water Review Group to be established at MEPC 56 with the view to advising the GESAMP-BWWG before its next meeting tentatively scheduled for October 2007, and decide as appropriate (paragraph 4.37.2);

- .16 consider, with a view to adoption by an MEPC resolution, the draft Guidelines for additional measures regarding ballast water management including emergency situations (G13) (paragraph 4.37.3 and annex 3);
- .17 consider, with a view to adoption by an MEPC resolution, the draft Guidelines for risk assessment under regulation A-4 (G7) (paragraph 4.37.4 and annex 4);
- .18 note the Sub-Committee's view that the e-Ballast Water Reporting Forms currently in use in different countries should not be promoted and the decision to use such reporting forms should be left to each country if they deem appropriate (paragraph 4.37.5);
- .19 extend the target completion date for the remaining items relating to the development of guidelines for uniform implementation of the 2004 BWM Convention to 2008 (paragraph 13.2 and annex 10);
- .20 note the progress made by the Sub-Committee on the revision of MARPOL Annex VI, including progress concerning VOC emissions (paragraph 5.56.1 and annexes 5 and 6); development of Tiers II and Tier III NO_x regulations for new engines (paragraphs 5.56.2 and .3); economic instruments to reduce emissions (paragraph 5.56.5); sulphur and particulate matter emissions (paragraph 5.56.7); and non-cargo ozone-depleting substances (paragraph 5.57.3 and annex 8);
- .21 note the announcement made by the Secretary-General of his intention to propose to MEPC 56 the commissioning of a comprehensive study by a cross government/industry scientific group that would help the MEPC make informed and workable decisions on how best to pursue the revision of MARPOL Annex VI (paragraphs 5.39 to 5.43);
- .22 note that, due to time constraints, the Sub-Committee was unable to fully consider the proposed amendments to resolution MEPC.130(53) on Guidelines for on-board exhaust gas-SO_x cleaning systems, set out in annex 6 to document BLG 11/WP.4, and consider the Sub-Committee's invitation to take them into account when considering issues relevant to washwater criteria for Exhaust gas-SO_x cleaning systems (paragraph 5.56.8);
- .23 approve the Sub-Committee's request for an extension of one session, including the holding of an intersessional meeting of the Air Pollution Working Group in the autumn of 2007, and approve the draft timetable for completing the revision of MARPOL Annex VI (paragraph 5.56.9 and annex 7);
- .24 on the issue of proposed amendments to MARPOL Annex I on ship-to-ship oil transfer operations, consider, and decide as appropriate, the request by the Sub-Committee to extend the target completion date to 2008 and endorse the establishment of a correspondence group to further progress the matter in the intersessional period (paragraph 7.22);
- .25 note the view of the Sub-Committee regarding carriage of bio-fuels and bio-fuel blends that, in the first instance, data sheets for renewable diesel oil covering a range of compositions should be submitted to the GESAMP/EHS Working

Group for evaluation upon which an informed technical decision can be made (paragraph 10.12);

- .26 approve, subject to MSC's concurrent decision, the proposed revised work programme of the Sub-Committee and the provisional agenda for BLG 12 (paragraphs 13.1 and 13.2 and annex 10);
- .27 note the discussion held by the Sub-Committee on the proposed ban on the use and carriage of heavy grade oil in the Antarctic area and provide guidance to the Sub-Committee as to how to pursue this matter further (paragraphs 14.24 and 14.25); and
- .28 approve the report in general.

ANNEX 1**DRAFT REVISED TANK CLEANING ADDITIVES GUIDANCE NOTE
AND REPORTING FORM**

1 The Marine Environment Protection Committee, at its fifty-second session, adopted the revised MARPOL Annex II by resolution MEPC.118 (52), which includes in regulation 13 “Provisions on the control of discharge of Noxious Liquid Substances” and specifically, in this context, restrictions on the cleaning additives permitted for use in tank washing operations as follows:

“13.5.2 When small amounts of cleaning additives (detergent products) are added to water in order to facilitate tank washing, no additives containing Pollution Category X components shall be used except those components that are readily biodegradable and present in a total concentration of less than 10% of the cleaning additive. No restrictions additional to those applicable to the tank due to the previous cargo shall apply.”

2 [The Marine Environment Protection Committee, at its fifty-sixth session, approved the revised guidelines, which were developed as a consequence of the revised MARPOL Annex II.]

3 Member Governments are invited to bring this information to the attention of those companies submitting data on tank cleaning additives to the BLG Sub-Committee through their Administrations in order to determine whether they meet the requirements of paragraph 13.5.2 of the revised MARPOL Annex II.

4 These guidelines supersede those contained in MEPC/Circ.363.

ANNEX

TANK CLEANING ADDITIVES GUIDANCE NOTE AND REPORTING FORM FOR THE SUBMISSION OF TANK CLEANING ADDITIVES DATA

INTRODUCTION

A cleaning additive may be used for the cleaning of cargo tanks and associated piping systems on ships certified to carry Noxious Liquid Substances in bulk. It is used by adding it to the washwater in small amounts. Such cleaning additives are listed in annex 10 of the MEPC.2/Circular.

Cleaning agents referred to in regulation 13.5.1 of MARPOL Annex II fall outside the scope of these guidelines and their data should not be submitted for evaluation.

The use of cleaning additives is recorded in the Cargo Record Book as stated in Appendix 2 to MARPOL Annex II, "List of items to be recorded".

Tank cleaning additives are evaluated by the Sub-Committee on Bulk Liquids and Gases (BLG) in order to protect the marine environment from adverse effects related to their use.

It is not the intention of the evaluation to determine the efficacy of the cleaning additives, but solely to determine their environmental acceptability by establishing whether the additives concerned meet the requirements of regulation 13.5.2 of MARPOL Annex II.

This document contains a guidance note and a form to facilitate the submission of data by manufacturers through their Governments.

GUIDANCE NOTE

1 The composition of the cleaning additive should be fully specified, so that it can be evaluated on the basis of its individual component(s).

2 The manufacturer shall provide the data for columns A1, A2 and B1 as well as available information on column D3 of the GESAMP Hazard Profile (GHP) for all individual components of the cleaning additive.

3 Components with Pollution Category X shall not exceed 10% of the total weight of the cleaning additive.

4 If a component falls within Pollution Category X, it shall be readily biodegradable (column A2=R).

5 Components considered as falling within the scope of MARPOL Annex I will be evaluated with a rating of "4" in column B1, in line with the procedure outlined in MEPC.1/Circ.512.

6 The component names used on the form shall be the correct technical names as used by GESAMP/EHS, which means that trade names are not acceptable.

- 7 The following procedure is applicable for the submission of cleaning additives:
- .1 if the components of a cleaning additive do not have the required GHP, the manufacturer submits these components to the GESAMP/EHS* [on an “owner pays principle”];
 - .2 GESAMP/EHS informs the manufacturer of the results of the evaluation of the components;
 - .3 the manufacturer submits to its Government the reporting form containing the full composition of the cleaning additive, listing all components with their associated GHP and supporting documentation, including usage instructions for NLS cargo tank cleaning;
 - .4 the Government brings the completed reporting form with supporting documentation to the attention of the BLG/ESPH Working Group;
 - .5 the BLG/ESPH Working Group evaluates the submission and, if it meets the criteria, proposes it for inclusion in the next edition of the MEPC.2/Circular;
 - .6 if the BLG/ESPH Working Group deems that the submission does not meet the criteria it is returned to the Government for onward transmission to the manufacturer.

* The completed form should be sent to:

The Technical Secretary of GESAMP/EHS Working Group
International Maritime Organization (IMO)
4 Albert Embankment
London SE1 7SR
United Kingdom

**REPORTING FORM FOR THE SUBMISSION OF DATA FOR THE EVALUATION
OF NLS TANK CLEANING ADDITIVES**

Confidential Data

Proprietary data and composition will be treated as confidential by the Government and their representatives who form the evaluating group within IMO.

Name of producing company :

Name of the cleaning additive :

as they are to appear in annex 10 of the MEPC.2/Circular.

Has this cleaning additive been submitted before? Yes No
If “yes” give details of any changes.

Component No.	Component name (as used by GESAMP/EHS)	Weight %	GESAMP Hazard Profile			
			A1	A2	B1	D3
1						
2						
3						
4						
5						
6						
7						
8						

Continuation sheets may be used when needed.

Typical rate of dilution in washwater required for proper use of the cleaning additive: %
(as stated by the manufacturer in the description of use)

ATTACH USAGE INSTRUCTIONS FOR NLS CARGO TANK CLEANING (if this information is not provided, this application will be rejected)

Date: _____
 dd/mm/yy

Signature: _____

Title: _____

ANNEX 2**DRAFT RESOLUTION MEPC.[...](56)****DRAFT GUIDELINES FOR BALLAST WATER EXCHANGE IN THE
ANTARCTIC TREATY AREA**

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 2005 adopted the International Convention for the Control and Management of Ships' Ballast Water and Sediments, 2004 (the Ballast Water Management Convention),

MINDFUL of Article 13 of the BWM Convention which provides that in order to further the objectives of the Convention, Parties with common interests to protect the environment, human health, property and resources in a given geographical area, in particular, those Parties bordering enclosed and semi-enclosed seas, shall endeavour, taking into account characteristic regional features, to enhance regional co-operation, including through the conclusion of regional agreements consistent with the BWM Convention,

BEING AWARE of the designation of Antarctica as a Special Conservation Area and of the measures adopted under the Antarctic Treaty to protect the Antarctic environment and dependent and associated ecosystems,

BEING AWARE ALSO of the requirements of Annex II to the Protocol on Environmental Protection to the Antarctic Treaty regarding conservation of Antarctic fauna and flora and in particular of the precautions taken to prevent the introduction of non-native species to the Antarctic Treaty area,

NOTING that Article 18 of the BWM Convention provides that it shall enter into force twelve months after the date on which not less than thirty States, the combined merchant fleets of which constitute not less than thirty-five percent of the gross tonnage of the world's merchant shipping, have become Parties to it in accordance with Article 17 of the Convention and noting further that the BWM Convention is yet to enter into force,

CONSCIOUS of the potential for invasive marine organisms to be transported into, or moved between biologically distinct regions within the Antarctic Treaty area by ships in their ballast water,

HAVING CONSIDERED the draft Guidelines for ballast water exchange in the Antarctic Treaty area and the recommendation made by the Sub-Committee on Bulk Liquids and Gases at its eleventh session,

1. ADOPTS the Guidelines for ballast water exchange in the Antarctic Treaty area as set out in the annex to this resolution;
2. INVITES Governments to apply the Guidelines as soon as possible, as an interim measure for all ships entering Antarctic Treaty area before the BWM Convention comes into force; and
3. AGREES to keep the Guidelines under review.

ANNEX

**GUIDELINES FOR BALLAST WATER EXCHANGE IN THE
ANTARCTIC TREATY AREA**

1 The application of these Guidelines should apply to those vessels covered by Article 3 of the International Convention for the Control and Management of Ships' Ballast Water and Sediments (the Ballast Water Management Convention), taking into account the exceptions in Regulation A-3 of the Convention. These Guidelines do not replace the requirements of the Ballast Water Management Convention, but provide an interim Ballast Water Regional Management Plan for Antarctica under Article 13(3).

2 If the safety of the ship is in any way jeopardized by a ballast exchange, it should not take place. Additionally these guidelines do not apply to the uptake or discharge of ballast water and sediments for ensuring the safety of the ship in emergency situations or saving life at sea in Antarctic waters.

3 A Ballast Water Management Plan should be prepared for each vessel with ballast tanks entering Antarctic waters, specifically taking into account the problems of ballast water exchange in cold environments and in Antarctic conditions.

4 Each vessel entering Antarctic waters should keep a record of ballast water operations.

5 For vessels needing to discharge ballast water within the Antarctic Treaty area, ballast water should first be exchanged before arrival in Antarctic waters (preferably north of either the Antarctic Polar Frontal Zone or 60°S, whichever is the furthest north) and at least 200 nautical miles from the nearest land in water at least 200 metres deep. (If this is not possible for operational reasons then such exchange should be undertaken in waters at least 50 nautical miles from the nearest land in waters of at least 200 metres depth).

6 Only those tanks that will be discharged in Antarctic waters would need to undergo ballast water exchange following the procedure in paragraph 5. Ballast water exchange of all tanks is encouraged for all vessels that have the potential/capacity to load cargo in Antarctica, as changes in routes and planned activities are frequent during Antarctic voyages due to changing meteorological and sea conditions.

7 If a vessel has taken on ballast water in Antarctic waters and is intending to discharge ballast water in Arctic, sub-Arctic, or sub-Antarctic waters, it is recommended that ballast water should be exchanged north of the Antarctic Polar Frontal Zone, and at least 200 nautical miles from the nearest land in water at least 200 metres deep. (If this is not possible for operational reasons then such exchange should be undertaken in waters at least 50 nautical miles from the nearest land in waters of at least 200 metres depth).

8 Release of sediments during the cleaning of ballast tanks should not take place in Antarctic waters.

9 For vessels that have spent significant time in the Arctic, ballast water sediment should preferably be discharged and tanks cleaned before entering Antarctic waters (south of 60°S). If this cannot be done then sediment accumulation in ballast tanks should be monitored and sediment should be disposed of in accordance with the ship's Ballast Water Management Plan. If sediments are disposed of at sea, then they should be disposed of in waters at least 200 nautical miles from the shoreline in waters at least 200 metres deep.

10 Governments are invited to exchange information on invasive marine species or anything that will change the perceived risk associated with ballast water.

ANNEX 3**DRAFT RESOLUTION MEPC.[...](56)****Adopted on ... July 2007****DRAFT GUIDELINES FOR ADDITIONAL MEASURES REGARDING BALLAST WATER MANAGEMENT INCLUDING EMERGENCY SITUATIONS (G13)**

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,

NOTING that regulation A-2 of the Ballast Water Management Convention requires that discharge of ballast water shall only be conducted through Ballast Water Management in accordance with the provisions of the Annex to the Convention,

NOTING FURTHER that Section C of the Annex to the International Convention for the Control and Management of Ships' Ballast Water and Sediments provides that, if a Party, individually or jointly with other Parties, determines that measures in addition to those in Section B of the Convention are necessary to prevent, reduce, or eliminate the transfer of harmful aquatic organisms and pathogens through ships' ballast water and sediments, such Party or Parties may, consistent with international law, require ships to meet a specified standard or requirement taking into account the Guidelines developed by the Organization,

NOTING ALSO that resolution 1 adopted by the International Conference on Ballast Water Management for Ships invited the Organization to develop these Guidelines as a matter of urgency,

HAVING CONSIDERED, at its fifty-sixth session, the draft Guidelines for additional measures regarding ballast water management including emergency situations (G13) developed by the Ballast Water Working Group,

1. ADOPTS the Guidelines for additional measures regarding ballast water management including emergency situations (G13) as set out in the annex to this resolution;
2. INVITES Governments to apply these Guidelines as soon as possible, or when the Convention becomes applicable to them; and
3. AGREES to keep these Guidelines under review.

ANNEX

DRAFT GUIDELINES FOR ADDITIONAL MEASURES REGARDING BALLAST WATER MANAGEMENT INCLUDING EMERGENCY SITUATIONS (G13)

1 INTRODUCTION

1.1 The International Convention for the Control and Management of Ships' Ballast Water and Sediments, 2004, hereafter referred to as the "Convention," regulates the transfer of harmful aquatic organisms and pathogens from ships' ballast water and sediments.

1.2 These Guidelines have been developed pursuant to regulation C-1 of the Convention. These Guidelines provide guidance under regulation C-1 for a Party or Parties to use when determining if measures in addition to those in Section B of the Convention are necessary in order to prevent, reduce or eliminate the transfer of harmful aquatic organisms and pathogens through ships' ballast water and sediments.

1.3 The Guidelines should be kept under review in order to make use of experiences gained in their application.

2 ASSESSMENT WHEN A STATE INTENDS TO INTRODUCE ADDITIONAL MEASURES

2.1 General

2.1.1 The Convention, in regulation C-1 Additional Measures, provides that a Party individually or jointly with other Parties, may introduce measures in addition to those in Section B. A Party or Parties may require ships, in accordance with international law, to meet or exceed a specified standard or requirement.

2.1.2 A Party intending to introduce additional measures should take these Guidelines into account, and endeavour to make available all appropriate services for ships to facilitate their compliance with any additional measures.

2.2 The assessment

2.2.1 Before a Party, individually or jointly with other Parties, intends to introduce additional measures in accordance with regulation C-1 of the Convention, it should assess the need for and nature of the measures, which should include:

- .1 identification of the concern, i.e., the potential harm from the introduction of Harmful Aquatic Organisms and Pathogens in the area to be covered by the additional measures;
- .2 description of the cause(s) of the identified concern;
- .3 identification of potential additional measures to be introduced; and

- .4 identification of potential effects and consequences, beneficial and detrimental, resulting from introduction of the proposed additional measure(s).

2.2.2 A Party should assess the character of the concern. Such an assessment may include a consideration of such things as:

- .1 What are the probabilities or consequences of future introductions of harmful aquatic organisms and pathogens on the environment, human health, property, or resources?
- .2 If harmful aquatic organisms or pathogens have already been introduced, what effects are they already having on the environment, human health, property or resources, and how might this be affected by future introductions?
- .3 Whether ballast water from ships is a vector for the introduction of harmful aquatic organisms and pathogens?

Identification of the additional measures to be introduced

2.2.3 The additional measure(s) to be introduced shall be in accordance with Article 7.2 and regulation C-1.3 of the Convention, and should be clearly identified in respect of:

- .1 the area(s) where the additional measure(s) is/are applicable defined by precise co-ordinates;
- .2 the operational and/or technical requirement(s) which applies to ships in the area(s), and the requirement(s) to provide documentation for compliance if needed;
- .3 the arrangements which may be provided to facilitate ships' compliance with the additional measure(s);
- .4 the effective date and duration of the measure(s); and
- .5 any other requirements and services in relation to the additional measure(s).

Effects and consequences of introduction of the proposed measure(s)

2.2.4 The economic consequences resulting from the introduction of the additional measure(s) should be taken into account. In this respect the following aspects may be relevant:

- .1 the economic benefits and possible costs, including costs to the industry, associated with the additional measure(s); and
- .2 any other effects and consequences.

2.3 Procedures to follow when establishing additional measures

2.3.1 A Party or Parties intending to introduce additional measures in accordance with regulation C-1 of the Convention should consult adjacent States and other States that may be affected before the additional measures are decided upon so that such consultations can, where appropriate, meaningfully inform decision making. The Assessment as outlined in section 2.2 of these Guidelines should be presented to affected States, and States should be invited to comment on the draft assessment, if appropriate.

- .1 In regulation C-1 of the Convention two procedures for introducing additional measures are possible – one procedure which requires IMO approval, and another procedure which only requires IMO notification.
- .2 The Party or Parties should ensure that any additional measure(s) shall not compromise the safety and security of the ship and in any circumstances not conflict with any other conventions or customary international law with which the ship must comply.
- .3 The legal determination upon which the additional measure(s) is submitted should be identified.
- .4 In introducing additional measures, the Party or Parties should, *inter alia*, provide the following information to the Organization, in particular the Marine Environment Protection Committee (hereafter known as the “MEPC”):
 - .1 the Assessment as outlined in section 2.2;
 - .2 the identification of the legal determination upon which each additional measure(s) is submitted; and
 - .3 the following additional details:
 - .1 if the additional measure(s) is already provided under an existing IMO instrument; or
 - .2 if the additional measure(s) does not yet exist but could become available through amendment of any IMO instrument or adoption of a new IMO instrument; or
 - .3 if the additional measure(s) is proposed for adoption in the territorial sea,¹ or pursuant to the United Nations Convention on the Law of the Sea where existing measures or a generally applicable measure would not adequately address the concern identified in section 2.2.

¹ This provision does not derogate from the rights and duties of coastal States in the territorial sea as provided for in the United Nations Convention on the Law of the Sea.

- .5 Where a Party or Parties may seek to introduce additional measures through the notifying procedure, the IMO should be notified at least 6 months prior to the projected date of implementation, except in emergency circumstances in accordance with regulation C-1.3.2.
- .6 In the case where a Party or Parties intend to introduce additional measure(s) that requires approval by the Organization under international law as reflected in UNCLOS (see regulation C-1.3.3 of the Convention), the Party or Parties should, in accordance with the rules adopted by the MEPC for submission of papers, submit the application to introduce additional measure(s) to the MEPC for its approval.
- .7 In considering additional measures that require the approval of the Organization, the MEPC should be expected to consider an application submitted to it by a proposing Party or Parties on a case-by-case basis. In assessing each proposal, the MEPC should be expected in particular to consider:
 - .1 whether such additional measures are in accordance with Article 7.2 and regulation C-1.3 of the Convention;
 - .2 whether the proposed additional measures are appropriate to prevent, reduce, or eliminate the identified potential harm from the introduction of harmful aquatic organisms and pathogens in the area to be covered by the additional measures;
 - .3 whether such measures might result in an increased potential for significant adverse effects by international shipping activities on the environment outside the area to be covered by the additional measures; and
 - .4 whether such measures might, *inter alia*, result in any impact on the safety and commercial aspect of international shipping activities.
- .8 In the case where an application is submitted for approval, if the MEPC approves the application, the additional measure(s) may be implemented. If the application is not approved, the additional measure(s) cannot be implemented. The proposing Party or Parties may submit a revised application to the Marine Environment Protection Committee for approval subsequently.

2.4 Communication of information

2.4.1 A Party or Parties intending to introduce additional measures should inform adjacent States and other States that may be affected, the shipping industry in general and ships entering the areas concerned as soon as possible, and in the case of those measures requiring approval of the Organization, as soon as the proposal has been so approved. The information should at least contain:

- .1 the precise co-ordinates where and applicable date when additional measure(s) is/are applicable;

- .2 the need and reasoning for the application of the additional measure(s), including, whenever possible, benefits;
- .3 a description of the additional measure(s); and
- .4 any arrangements that may be provided to facilitate ships' compliance with the additional measures.

2.4.2 Communications in accordance with regulation C-1 of the Convention shall be submitted to the Marine Environment Protection Committee. Except in emergency situations, the intention to establish such additional measures is required by regulation C-1.3 to be communicated to the Organization at least six months prior to the projected date of implementation. In emergency situations, additional measures should be communicated to the Organization as soon as possible.

2.4.3 In both cases (approval/non-approval), in due time before the introduction of the additional measure(s) a Party or Parties intending to introduce additional measures should inform affected States, the shipping industry in general and ships entering the areas concerned, the following should be communicated:

- .1 the precise co-ordinates where additional measure(s) is/are applicable;
- .2 the operational and/or technical requirement(s) which applies or apply to ships in the area(s), and the requirement(s) to provide documentation for compliance if needed;
- .3 the arrangements which may be provided to facilitate ships' compliance with the additional measure(s);
- .4 the effective date and duration of the measure(s); and
- .5 any other requirements and services in relation to the additional measure(s).

2.4.4 The Organization shall issue circulars or post relevant information on the website in accordance with the provisions of the Convention.

3 EMERGENCY OR EPIDEMIC SITUATION

3.1 A Party or Parties may adopt an additional measure(s) to address an emergency or epidemic situation.

3.2 If such a measure is adopted, a Party or Parties should, as soon as possible, notify adjacent and other States that may be affected, the shipping industry in general, and ships operating in the areas of concern. Such information should contain:

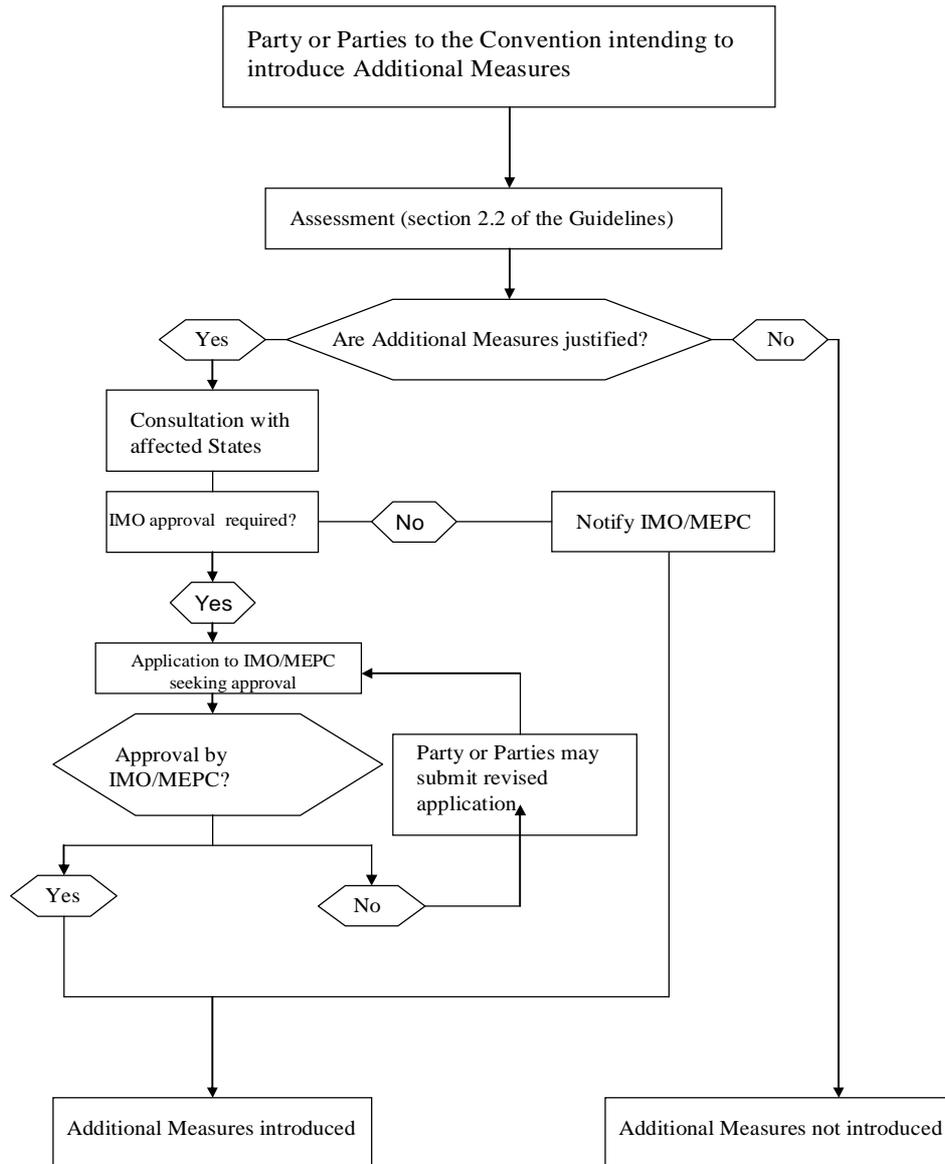
- .1 the precise co-ordinates of the area;
- .2 the need for such additional measure(s);
- .3 a description of the additional measure(s);

- .4 any arrangements that may be provided to facilitate ships' compliance with the additional measure(s); and
- .5 the effective date when the measure(s) applies and when the measure(s) is no longer in effect.

3.3 In an emergency or epidemic situation, the additional measure(s) adopted should be communicated to the Organization as soon as possible. The Organization shall post relevant information on its website and retain such information for dissemination to the Committee.

APPENDIX

FLOW CHART – PROCEDURE FOR INTRODUCING ADDITIONAL MEASURES



ANNEX 4

DRAFT RESOLUTION MEPC.[...](56)

Adopted on ... July 2007

DRAFT GUIDELINES FOR RISK ASSESSMENT UNDER REGULATION A-4 (G7)
OF THE BWM CONVENTION

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,

NOTING that regulation A-2 of the Ballast Water Management Convention requires that discharge of ballast water shall only be conducted through Ballast Water Management in accordance with the provisions of the Annex to the Convention,

NOTING FURTHER that regulation A-4 of the Convention stipulates that a Party or Parties, in waters under their jurisdiction, may grant exemptions to any requirements to apply regulation B-3 or C-1, in addition to those exemptions contained elsewhere in this Convention, but only when they are *inter alia* granted based on the Guidelines on risk assessment developed by the Organization.

NOTING ALSO that the International Conference on Ballast Water Management for Ships, in its resolution 1, invited the Organization to develop the Guidelines for uniform application of the Convention as a matter of urgency,

HAVING CONSIDERED, at its fifty-sixth session, the draft Guidelines for risk assessment under regulation A-4 (G7) of the BWM Convention developed by the Ballast Water Working Group, and the recommendation made by the Sub-Committee on Bulk Liquids and Gases at its eleventh session,

1. ADOPTS the Guidelines for risk assessment under regulation A-4 (G7) of the BWM Convention as set out in the annex to this resolution;
2. INVITES Governments to apply the Guidelines as soon as possible, or when the Convention becomes applicable to them; and
3. AGREES to keep the Guidelines under review.

ANNEX

DRAFT GUIDELINES FOR RISK ASSESSMENT UNDER REGULATION A-4 (G7)

1 PURPOSE

1.1 The purpose of these Guidelines is to assist Parties to ensure that provisions of regulation A-4 of the Convention are applied in a consistent manner, and based on scientifically robust risk assessment, which ensures that the general and specific obligations of a Party to the Convention are achieved.

1.2 An additional purpose is to provide assurance to affected States that exemptions granted by a Party meet the regulation A-4.3 obligations.

1.3 The Guidelines outline three risk assessment methods that will enable Parties to identify unacceptable high risk scenarios and acceptable low risk scenarios, and advise Parties on procedures for granting and withdrawing exemptions in accordance with regulation A-4.

2 INTRODUCTION

2.1 Regulation A-4 of the Convention states that a Party or Parties, in waters under their jurisdiction may grant exemptions to any requirements to apply regulation B-3 or C-1, in addition to those exemptions contained elsewhere in the Convention, but only when they are:

- .1 granted to a ship or ships on a voyage or voyages between specified ports or locations; or to a ship which operates exclusively between specified ports or locations;
- .2 effective for a period of no more than five years subject to intermediate review;
- .3 granted to ships that do not mix ballast water or sediments other than between the ports or locations specified in paragraph 2.1.1; and
- .4 granted based on the Guidelines that have been developed by the Organization.

2.2 These Guidelines provide advice and information regarding risk assessment principles and methods, data needs, advice on application of risk assessment methods, procedures for granting exemptions, consultation and communication processes, information for reviewing exemptions and advice regarding technical assistance, co-operation and regional co-operation.

2.3 These Guidelines also provide advice regarding the roles of the Organization, shipping industry, port States and other States that might be affected by granting an exemption in accordance with regulation A-4 of the Convention.

2.4 Scientifically robust risk assessment underpins the process of Parties granting exemptions under regulation A-4 of the Convention. The assessment must be sufficiently robust to distinguish between unacceptable high risk scenarios and acceptable low risk scenarios where the discharge of ballast water not meeting regulations B-3 and C-1 is unlikely to impair or damage

the environment, human health, property or resources of the granting Party and of adjacent or other States.

2.5 Risk assessments should be based on best available scientific information.

2.6 The Guidelines should be kept under review in order to incorporate experiences gained during their application and any new scientific and technical knowledge.

3 APPLICATION

3.1 These Guidelines apply to Parties granting exemptions to ships under regulation A-4 of the Convention.

3.2 Shipowners or operators wanting to seek an exemption under regulation A-4 should also consult these Guidelines.

4 DEFINITIONS

4.1 For the purposes of these Guidelines, the definitions in the Convention apply.

4.2 “Anadromous”: species that spawn/reproduce in freshwater environments, but spend at least part of their adult life in a marine environment.

4.3 “Biogeographic region”: a large natural region defined by physiographic and biologic characteristics within which the animal and plant species show a high degree of similarity. There are no sharp and absolute boundaries but rather more or less clearly expressed transition zones.

4.4 “Catadromous”: species that spawn/reproduce in marine environments, but spend at least part of their adult life in a freshwater environment.

4.5 “Cryptogenic”: species that are of unknown origin, i.e. species that are not demonstrably native or introduced to a region.

4.6 “Donor Port”: port or location where the ballast water is taken onboard.

4.7 “Euryhaline”: species able to tolerate a wide range of salinities.

4.8 “Eurythermal”: species able to tolerate a wide range of temperatures.

4.9 “Freshwater”: water with salinity lower than 0.5 psu (practical salinity units).

4.10 “Marine water”: Water with salinity higher than 30 psu.

4.11 “Non-indigenous species”: any species outside its native range, whether transported intentionally or accidentally by humans or transported through natural processes.

4.12 “Recipient port”: port or location where the ballast water is discharged.

4.13 “Target species”: species identified by a Party that meet specific criteria indicating that they may impair or damage the environment, human health, property or resources and are defined for a specific port, State or biogeographic region.

5 RISK ASSESSMENT PRINCIPLES

5.1 Risk assessment is a logical process for assigning the likelihood and consequences of specific events, such as the entry, establishment, or spread of harmful aquatic organisms and pathogens. Risk assessments can be qualitative or quantitative, and can be a valuable decision aid if completed in a systematic and rigorous manner.

5.2 The following key principles define the nature and performance of risk assessment:

- .1 **Effectiveness** – That risk assessments accurately measures the risks to the extent necessary to achieve an appropriate level of protection.
- .2 **Transparency** – That the reasoning and evidence supporting the action recommended by risk assessments, and areas of uncertainty (and their possible consequences to those recommendations), are clearly documented and made available to decision-makers.
- .3 **Consistency** – That risk assessments achieve a uniform high level of performance, using a common process and methodology.
- .4 **Comprehensiveness** – That the full range of values, including economic, environmental, social and cultural, are considered when assessing risks and making recommendations.
- .5 **Risk Management** – That low risk scenarios may exist, but zero risk is not obtainable, and as such risk should be managed by determining the acceptable level of risk in each instance.
- .6 **Precautionary** – That risk assessments incorporate a level of precaution when making assumptions, and making recommendations, to account for uncertainty, unreliability, and inadequacy of information. The absence of, or uncertainty in, any information should therefore be considered an indicator of potential risk.
- .7 **Science based** – That risk assessments are based on the best available information that has been collected and analyzed using scientific methods.
- .8 **Continuous improvement** – Any risk model should be periodically reviewed and updated to account for improved understanding.

5.3 In undertaking risk assessment when considering granting an exemption, the risk assessment principles should be carefully applied. The lack of full scientific certainty should be carefully considered in the decision making process. This is especially important under these Guidelines, as any decision to grant an exemption will allow for the discharge of ballast water that does not meet the standards of regulation D-1 or D-2.

6 RISK ASSESSMENT METHODS

6.1 There are three risk assessment methods outlined in these Guidelines for assessing the risks in relation to granting an exemption in accordance with regulation A-4 of the Convention:

- Environmental matching risk assessment
- Species' biogeographical risk assessment
- Species-specific risk assessment

6.2 Environmental matching risk assessment relies on comparing environmental conditions between locations, species' biogeographical risk assessment compares the overlap of native and non-indigenous species to evaluate environmental similarity and to identify high risk invaders, while species-specific risk assessment evaluates the distribution and characteristics of identified target species. Dependent on the scope of the assessment being performed, the three approaches could be used either individually or in any combination, recognizing that each approach has its limitations.

6.3 Environment matching and species' biogeographical risk assessment may be best suited to assessments between biogeographic regions. Species-specific risk assessment may be best suited to situations where the assessment can be conducted on a limited number of harmful species within a biogeographic region.

6.4 Environmental matching risk assessment

6.4.1 Environmental matching risk assessments compare environmental conditions including temperature and salinity between donor and recipient regions. The degree of similarity between the locations provides an indication of the likelihood of survival and the establishment of any species transferred between those locations.

6.4.2 Since species are widely distributed in a region, and are rarely restricted to a single port the environmental conditions of the source region should be considered.

6.4.3 These regions are typically defined as biogeographic regions. Noting that all of the existing biogeographical schemes were derived for different purposes than proposed here, it is suggested that the Large Marine Ecosystems (LME) scheme (<http://www.edc.uri.edu/lme>) be used based on best available information at this time, with local and regional adaptation as necessary. It is recognized that the suggested biogeographical scheme may not be appropriate in certain circumstances and in this case other recognized biogeographical schemes may need to be considered².

6.4.4 Environmental matching should therefore compare environmental conditions between the donor biogeographic region and the recipient port to determine the likelihood that any species found in the donor biogeographic region are able to survive in the recipient port in another biogeographic region. The environmental conditions that may be considered for environmental

² Watling and Gerkin (<http://marine.rutgers.edu/OBIS/index.html>) based on Briggs (1953) and Springer (1982); IUCN bioregion system; Briggs (1953) and Ekman (1974; 1995); Longhurst provinces.

matching include salinity, temperature or other environmental conditions, such as nutrients or oxygen.

6.4.5 The difficulty in using environmental matching risk assessments is identifying the environmental conditions that are predictive of the ability of the harmful species to successfully establish and cause harm in the new location, and in determining whether the risk of ballast water discharge is sufficiently low to be acceptable. Environmental matching risk assessments have limited value where the differences between a donor biogeographic region and a recipient port are small as high similarity is likely to indicate high likelihood of successful establishment.

6.4.6 Environmental conditions should also be compared between the donor and recipient ports. Similarity in key environmental conditions between the two ports is a stronger indication that species entrained in ballast water in the donor port could survive when released into the waters of the recipient port. The environmental conditions that may be considered for environmental matching include salinity, temperature or other environmental conditions, such as nutrients or oxygen.

6.4.7 The data necessary to enable a risk assessment using environmental matching includes, but is not limited to:

- .1 Origin of the ballast water to be discharged in recipient port.
- .2 Biogeographic region of donor and recipient port(s).
- .3 The average and range of environmental conditions, in particular salinity and temperature.

This information is used to determine the degree of environmental similarity between the donor and recipient environments. In many cases, it should be possible to use existing data for part or all of these environmental profiles.

6.4.8 The following should be considered in gathering data on the environmental conditions:

- .1 The seasonal variations in surface and bottom salinities and temperatures at the recipient port and the larger water body the port is contained within (e.g., estuary or bay). Surface and bottom values are needed to determine the full range of environmental conditions available for a potential invader (e.g., low salinity surface waters allowing the invasion of a freshwater species). Salinity and temperature depth profiles are not required if available data indicates the waters are well mixed over the entire year.
- .2 In recipient ports with strong tides or currents, the temporal variations in salinity should be determined over a tidal cycle.
- .3 In areas with seasonal or depth variations, the salinity should be determined on a seasonal and/or depth basis.
- .4 Any anthropogenic influences on freshwater flow that could temporarily or permanently alter the salinity regime of the recipient port and surrounding waters.

- .5 The seasonal temperature variation of coastal waters for the biogeographic region of the recipient port. Consideration should be given to both surface waters and to how temperature varies with depth.

6.4.9 It is recommended that the analysis of environmental conditions be followed by a consideration of the species known to be in the donor region that can tolerate extreme environmental differences. If present, a species-specific approach should be used to evaluate the risks associated with these species. Such species include:

- species that utilize both fresh and marine environments to complete their life-cycle (including anadromous (e.g., Sea Lamprey) and catadromous (e.g., Chinese Mitten crab) species);
- species with a tolerance to a wide range of temperatures (eurythermal species) or salinities (euryhaline species).

6.5 Species' biogeographical risk assessment

6.5.1 Species' biogeographical risk assessment compares the biogeographical distributions of nonindigenous, cryptogenic, and harmful native species that presently exist in the donor and recipient ports and biogeographic regions. Overlapping species in the donor and recipient ports and regions are a direct indication that environmental conditions are sufficiently similar to allow a shared fauna and flora. The biogeographical analysis could also be used to identify high risk invaders. For example, native species in the donor biogeographic region that have successfully invaded other similar biogeographic regions but that are not found in the recipient biogeographic region could be considered high risk invaders for the recipient port or location. The larger the number of biogeographic regions that such species have invaded, the greater the potential that those species would be able to become established in the recipient port or biogeographic region if introduced by ballast water not meeting regulation B-3 or C-1. Another general indicator of risk would be if the donor biogeographic region is a major source of invaders to other areas.

6.5.2 The data necessary to enable a risk assessment using a species biogeographical approach includes but may not be limited to:

- .1 records of invasion in the donor and recipient biogeographic regions and ports;
- .2 records of native or non-indigenous species that could be transferred through ballast water in the donor biogeographic region that have invaded other biogeographic regions and the number and nature of biogeographic regions invaded;
- .3 records of native species in the donor region that have the potential to affect human health or result in substantial ecological or economic impacts after introduction in the recipient region through ballast water transfer.

6.5.3 The species' biogeographical risk assessment could also be used to identify potential target species in the donor regions as indicated by native species with wide biogeographical or habitat distributions or which are known invaders in other biogeographic regions similar to that of the recipient port.

6.6 Species-specific risk assessment

6.6.1 Species-specific risk assessments use information on life history and physiological tolerances to define a species' physiological limits and thereby estimate its potential to survive or complete its life cycle in the recipient environment. That is, they compare individual species characteristics with the environmental conditions in the recipient port, to determine the likelihood of transfer and survival.

6.6.2 In order to undertake a species-specific risk assessment, species of concern that may impair or damage the environment, human health, property or resources need to be identified and selected. These are known as the target species. Target species should be selected for a specific port, State, or geographical region, and should be identified and agreed on in consultation with affected States.

6.6.3 To determine the species that are potentially harmful and invasive, parties should initially identify all species (including cryptogenic species) that are present in the donor port but not in the recipient port. Target species should then be selected based on criteria that identify the species that have the ability to invade and become harmful. The factors to consider when identifying target species include, but should not be limited to:

- evidence of prior introduction;
- demonstrated impacts on environment, economy, human health, property or resources;
- strength and type of ecological interactions, e.g. ecological engineers;
- current distribution within biogeographic region and in other biogeographic regions; and
- relationship with ballast water as a vector.

6.6.4 Species-specific risk assessments should then be conducted on a list of target species, including actual or potentially harmful non-indigenous species (including cryptogenic species). As the number of species included in the assessment increases the number of low risk scenarios decreases. This is justified if the species assessments are accurate. The difficulty arises when the assessments are conservative due to lack of data. It should be recognized however, that the fewer the number of species analyzed, the greater the uncertainty in predicting the overall risk. The uncertainty associated with limiting the analysis to a small number of species should therefore be considered in assessing the overall risk of invasion.

6.6.5 It should be noted that there are limitations involved with using a target species approach. Although some data and information can be obtained to support decision making, identifying species that may impair or damage the environment, human health, property or resources is subjective and there will be a degree of uncertainty associated with the approach. For example, it is possible that species identified as harmful in some environments may not be harmful in others and *vice versa*.

6.6.6 If species-specific risk assessments are undertaken when the donor and recipient ports are within different biogeographic regions, Parties should identify and consider any uncertainties resulting from lack of data on the presence of potentially harmful species in the donor location.

6.6.7 The data necessary to enable a risk assessment using the species-specific approach includes, but is not limited to:

- .1 biogeographic region of donor and recipient port(s);
- .2 the presence of all non-indigenous species (including cryptogenic species) and native species in the donor port(s), port region and biogeographic region, not present in the recipient port, to allow identification of target species;
- .3 the presence of all target species in the recipient port(s), port region, and biogeographic region;
- .4 the difference between target species in the donor and recipient ports, port region, and biogeographic region;
- .5 life history information on the target species and physiological tolerances, in particular salinity and temperature, of each life stage; and
- .6 habitat type required by the target species and availability of habitat type in the recipient port.

6.6.8 If a target species is already present in the recipient port, it may be reasonable to exclude that species from the overall risk assessment for that port unless that species is under active control. It is important to recognize, however, that even when a non-indigenous species or cryptogenic species has been reported from the donor and recipient ports, its continual introduction into the recipient ports could increase the probability that it will become established and/or achieve invasive population densities.

6.6.9 A risk assessment can take different forms. A simple assessment can be undertaken as outlined in paragraph 6.6.7 of whether a target species is present in the donor port but not in a recipient port and can be transported through ballast water. However, if considered appropriate, the likelihood of target species surviving each of the following stages may be assessed, including:

- .1 Uptake – probability of viable stages entering the vessel's ballast water tanks during ballast water uptake operations;
- .2 Transfer – probability of survival during the voyage;
- .3 Discharge – probability of viable stages entering the recipient port through ballast water discharge on arrival; and
- .4 Population establishment – probability of the species establishing a self-maintaining population in the recipient port.

6.6.10 To determine the likelihood of transfer and survival of a harmful species, the probability of each species surviving each of the stages contained in 6.6.9 may be assessed. To the extent possible the different life stages of the target species may also be assessed considering seasonal variations of life stage occurrence in donor port with seasonal conditions in the recipient port. The overall risk assessment for the discharge of unmanaged ballast water is therefore determined based on the assessment of all target species surviving all these stages.

6.6.11 In assessing whether a species will survive in the recipient port, physiological tolerances of all life stages need to be considered.

- .1 The ability of the adults to survive would be indicated by the physiological limits for both temperature and salinity that fall within the environmental ranges observed in the recipient port and larger water body. As a check, a comparison could be made with the native and/or introduced ranges of the species to determine if the predicted tolerances (based on lab or field studies) reflect actual distributions.
- .2 For other life stages the physiological requirements of each stage in the life cycle should be compared against the environmental conditions during the season(s) of reproduction, noting that these stage(s) may live in different habitats to complete their life cycle (e.g., coastal pelagic larvae of estuarine benthic invertebrates). Data should be collected as appropriate.
- .3 Comparisons of known physiological tolerances for other conditions should be conducted if the data are available and relevant.

6.6.12 To evaluate whether the species-specific risk assessment approach is sufficiently robust to predict invaders, the approach could be used to estimate the probabilities of invasion for a suite of existing invaders within the recipient port. Failure to accurately predict existing invaders may indicate that the model under predicts the risk.

6.7 Evaluation and decision-making

6.7.1 The port State granting exemptions shall, in both the evaluation and consultation processes, give special attention to regulation A-4.3 which states that any exemptions granted under this regulation shall not impair or damage the environment, human health, property or resources of adjacent or other States. Regulation A-4.3 also states that States that may be adversely affected shall be consulted, and Parties should refer to section 8 regarding consultation.

6.7.2 It is important for the transparency and consistency of the risk assessments to define a priori criteria to distinguish between unacceptable high risk scenarios and acceptable low risk scenarios where the risk of ballast water not meeting regulations B-3 and C-1 is unlikely to impair or damage the environment, human health, property or resources of the granting Party and of adjacent or other States. The specific criteria depend upon the risk assessment approach, as well as the uncertainty in the analysis.

6.7.3 For an environmental matching risk assessment:

- .1 A high risk scenario could be indicated if the environmental conditions of the donor ports overlap the environmental conditions of the recipient region.
- .2 A low risk scenario could be indicated if the environmental conditions of the donor port do not overlap the environmental conditions of the recipient region.

6.7.4 For the species' biogeographical risk assessment:

- .1 A high risk could be indicated if the recipient port presently contains non-indigenous species whose native range includes the donor biogeographic region.
- .2 A high risk could be indicated if the donor and recipient ports share non-indigenous species whose source is from other biogeographic regions.
- .3 A moderate to high risk could be indicated if the recipient biogeographic region presently contains non-indigenous species whose native range includes the donor biogeographic region.
- .4 A moderate to high risk could be indicated if the donor biogeographic region is a major source for invaders for other biogeographic regions.

6.7.5 For a species-specific risk assessment, an assessment could be deemed high risk if it identifies at least one target species that satisfies all of the following:

- likely to cause harm;
- present in the donor port or biogeographic region;
- likely to be transferred to the recipient port through ballast water; and
- likely to survive in the recipient port.

6.7.6 The overall probability of a successful invasion also depends in part on the number of organisms and the frequency with which they are introduced over the entire period of the exemption. Therefore, it is recommended that a risk assessment should consider estimates of at least the following four factors:

- .1 the total volume of water discharged
- .2 the volume of water discharged in any event (voyage)
- .3 the total number of discharge events
- .4 the temporal distribution of discharge events

6.7.7 In all cases, the level of uncertainty needs to be considered in evaluating the extent of risk. High levels of uncertainty in the biogeographical distributions and/or physiological tolerances of a target species may be sufficient in themselves to classify the risk as high. Additionally, the potential ecological impact of the target species should be considered in deciding the level of acceptable risk. The absence of, or uncertainty in, any information should not be considered a reason to grant an exemption to regulation B-3 or C-1.

6.7.8 Once the level of risk and the extent of uncertainty have been assessed, the result can be compared to the levels a Party(s) is willing to accept in order to determine whether an exemption can be granted.

6.7.9 Ships on a voyage(s) or route(s) that satisfy the requirements of regulation A-4.1 and that pass(es) the terms of acceptance in the risk assessment may be granted an exemption.

6.7.10 It is recommended that an independent peer review of the risk assessment method, data and assumptions be undertaken in order to ensure that a scientifically rigorous analysis has been conducted. The peer review should be undertaken by an independent third party with biological and risk assessment expertise.

7 PROCEDURES FOR GRANTING EXEMPTIONS

7.1 The purpose of this section is to provide guidance for Parties, Administrations and ships, engaged in the process of applying for, evaluating and/or granting exemptions in accordance with the provisions of regulation A-4. The appendix also identifies minimum information required for an exemption application.

7.2 Parties may undertake the risk assessment themselves in order to grant exemptions, or require the shipowner or operator to undertake the risk assessment. In any event the Party granting an exemption is responsible for evaluating the risk assessment, verifying the data and information used, and ensuring the risk assessment is conducted in a thorough and objective manner in accordance with the Guidelines. The recipient port State(s) should reject any application for exemption found not to be in accordance with these Guidelines, and should provide reasons as to why the application was not accepted.

7.3 Shipowners or operators wanting to seek an exemption should contact the relevant Parties to ascertain the risk assessment procedures to be undertaken and the information requirements of these procedures.

7.4 Where a Party has determined that the shipowner or operator should undertake the risk assessment, the Party should provide relevant information, including any application requirements, the risk assessment model to be used, any target species to be considered, data standards and any other required information. The shipowner or operator should follow these Guidelines and submit relevant information to the Party.

7.5 The port State shall ensure that, as required by regulation A-4.1.3, exemptions are only granted to ships that do not mix ballast water or sediments other than between the locations specified in the exemption. The port State should require evidence of the specific measures undertaken to ensure compliance with this regulation at the time the exemption is granted and over the duration of the exemption. Non-compliance during the period of exemption should result in prompt suspension or revocation of the exemption.

7.6 An exemption shall not be effective for more than 5 years from the date granted. The approval may contain seasonal and time-specific or other restrictions within the time of validity.

7.7 The result of the risk assessment should be stated as:

- .1 The voyage(s) or route(s) represent(s) an acceptable risk. The application for an exemption is granted.
- .2 The voyage(s) or route(s) may represent an unacceptable risk. Further consideration is required.
- .3 The voyage(s) or route(s) represent(s) an unacceptable risk. The exemption from the ballast water management requirements of regulation B-3 or C-1 of the Convention is not granted.

8 CONSULTATION

8.1 In accordance with regulation A-4.3, Parties shall consult any State that may be adversely affected from any exemptions that may be granted. This should include adjacent States and any other States that may be affected, including those located in the same biogeographic region as the recipient port(s). States should exchange information and endeavour to resolve any identified concerns. Sufficient time must be given for affected States to consider proposed exemptions carefully.

8.2 Affected States should be provided with information on: the risk assessment method applied; the quality of the information used in the assessment; uncertainties in the model, model inputs and/or risk assessments; the rationale for the proposed exemption; and any terms or conditions applicable to the exemption.

8.3 The risk assessment should document the following elements as appropriate:

- Criteria or reference for defining target species in the risk method.
- The inventories of native, non-indigenous, and cryptogenic species used in the species' biogeographical risk assessment.
- Acceptance criteria applied in each step of the analysis. The risk assessment has to be put in a relevant context to enable determination of whether the risk level is acceptable or not. The only transparent verifiable way of doing this is to compare the actual risk level with clear predefined acceptance criteria in paragraphs 6.7.2 to 6.7.8.

8.4 In addition, the criteria or scientific methods used in defining and delimiting the biogeographic regions shall be presented if a scheme other than that recommended in paragraph 6.4.3 is used.

8.5 The invitation for comments should contain one of the two following options for the affected State's response:

- .1 Supported without comments or conditions.
- .2 Supported with comments and/or conditions.

8.6 The deadline for comments from the affected State(s) should be specified in the invitation. If no response within the given time-limit is received, this may be regarded as “Accepted without comments or conditions”.

8.7 If an affected State does not support the granting of the exemption(s), the appropriate reasons should be provided. Any conditions or limitations which an affected State believes to be necessary to enable them to support an exemption should be clearly identified.

9 COMMUNICATION OF INFORMATION

9.1 Each Party to the Convention that has indicated it will grant exemptions should establish a point or points of contact for receipt of applications. Relevant contact details should be submitted to the Organization. In the absence of such information from a Party, the IMO MEPC contact point should be regarded as the contact point for the purpose of these Guidelines.

9.2 The Organization should circulate the list of contacts, and keep this list updated on a regular basis.

9.3 The decision of the recipient port State(s) shall be communicated to the shipowners or operators, the affected State(s), and the Organization as soon as possible before the effective date of the exemption. The decision should explain the basis for granting the exemption and how any comments from affected States were addressed and specify the voyage or voyages in which the exemption is granted, including the specified ports or location(s), the duration of the exemption and details of any conditions or limitations on the exemption.

9.4 Exemptions granted in accordance with regulation A-4 of the Convention, shall be effective after communication to the Organization and circulation of relevant information to Parties.

9.5 Any exemption granted shall also be recorded in the ballast water record book in accordance with regulation A-4.4.

9.6 Where exemptions have been granted for a specific voyage, any changes in voyage plans must be communicated to the Party that has granted the exemption prior to undertaking the voyage or prior to discharge of ballast water.

10 REVIEW OF RISK ASSESSMENT AND WITHDRAWAL OF EXEMPTIONS

10.1 It is recommended that information used in the risk assessment be reviewed regularly as data and assumptions used in the assessment can become outdated.

10.2 It is recommended that an intermediate review be undertaken within 12 months but in any circumstances no later than 36 months after permission is granted. A recipient port State may require several reviews to be taken during the period the exemption is granted for, but more frequent than annual reviews generally should not be required.

10.3 Renewal of an exemption following the initial 60 months must not be granted without a thorough review of the risk assessment, consultation with affected States, and notice of the decision to the Organization under regulation A-4.2.

10.4 An exemption granted under regulation A-4 of the Convention may need to be withdrawn where the actual risk associated with a voyage has increased substantially since the risk assessment was conducted. This would include emergency situations such as outbreaks, incursions, infestations, or proliferations of populations of harmful aquatic organisms and pathogens (e.g., harmful algal blooms) which are likely to be taken up in ballast water (regulation C-2 of the Convention).

10.5 When a port State notifies mariners of areas under its jurisdiction where ships should not uptake ballast water due to an emergency or other high risk situation, all exemptions should be withdrawn from ships that take up ballast water in the defined area. In such circumstances the shipowners or operators should be notified of the decision to withdraw the exemption as soon as possible.

10.6 Guidelines for additional measures regarding ballast water management including emergency situations (G13) adopted by resolution MEPC.XXX (56) provide guidance to rapidly identify appropriate additional measures whenever emergency situations occur in relation to ballast water operations.

11 TECHNICAL ASSISTANCE, CO-OPERATION AND REGIONAL CO-OPERATION

11.1 Article 13 of the Convention provides that Parties undertake, directly or through the Organization and other international bodies, to provide support for those Parties which request technical assistance, that Parties undertake to co-operate and that Parties shall endeavour to enhance regional co-operation.

11.2 With regard to these risk assessment Guidelines, assistance should include provision of data and information required to undertake a risk assessment, technical assistance regarding the methods for undertaking risk assessment and acceptance criteria.

APPENDIX

APPLICATION TO PORT STATE

An application for exemption to the port State should as a minimum contain information on the points listed below.

1 GENERAL INFORMATION

- Period for which an application is sought; from month and year to month and year.
- Why an exemption under regulation A-4 is sought.

2 SHIP'S INFORMATION

- Ship name
- IMO number
- Port of registry
- Gross Tonnage
- Owner
- Call sign
- Ballast water management option usually undertaken by ship, including ballast water treatment technology, if installed
- A copy of the Ship's Ballast Water Management Plan should be submitted
- The Administration may also require ballast water and sediment management history for a determined period

3 ROUTE INFORMATION

- Route of application, given as donor port(s) and recipient port for ballast water discharge.
- If single voyage: Date and time of departure and arrival.
- If multiple voyages: Voyage frequency, regularity and estimated amount of ballast water discharged during the exemption period. Estimated time and dates for departures and arrivals.
- Any voyages the ship plans to take to ports other than the specified ports during the duration of the exemption.
- If multiple voyages, the estimated total number of voyages and the amount of ballast water discharged under the duration of the exemption.

ANNEX 5

PROPOSED AMENDMENTS TO REGULATION 15 OF MARPOL ANNEX VI

Proposal for future control of VOC emissions

- “(1) *Every tanker carrying crude oil shall have on board and implement a VOC management plan. Such a plan shall be approved by the Administration taking into account the Guidelines developed by the Organization. The VOC management plan shall be specific for each ship and shall at least:*
- (a) *provide written procedures for minimizing VOC emissions during loading, sea passage and discharge of cargo;*
 - (b) *give considerations to the extra VOC generated by crude oil washing;*
 - (c) *designate a person responsible for implementing the plan; and*
 - (d) *be written in the working language of the ship crew. If the language used is not English, French or Spanish, a translation into one of these languages shall be included.”*

ANNEX 6**DRAFT GUIDELINES FOR THE DEVELOPMENT OF A VOC MANAGEMENT PLAN****1 VOC emissions from tanker operations**

- .1 The purpose of the VOC management plan is to ensure that the operation of the crude oil tanker takes advantage of those possible opportunities to limit VOC emissions that may exist in each given case.
- .2 The release of VOC from crude oil can be reduced by:
 - optimizing operational procedures to reduce the release of VOC; and
 - using equipment to prevent VOC emissions.
- .3 To comply with this plan, loading, sea passage and discharging shall be evaluated and procedures written to ensure that the operation of the ship follow best practice for minimizing VOC emissions to the extent possible. If devices, equipment or design changes are implanted to reduce VOC emission, this shall also be incorporated and described in the VOC management plan as appropriate.
- .4 The VOC management plan should encourage best practice operation as follows:
 - to minimize VOC emission, the loading procedure should be considered, taking into consideration possible gas release due to low pressure. Where possible, routing of the oil from the crude oil manifolds and into the tanks should be performed such that excessive throttling and high flow velocity in pipes are minimized;
 - partial filling of tanks should be avoided to the extent possible since a large gas volume above the oil will contribute to increase both the content of VOC in the gas that is vented and also to the amount of VOC remaining in the tanks after discharging. Remaining VOC after discharging will be emitted due to displacement during the next loading;
 - tank filling and discharge sequence should be planned to minimize the time needed to fill or discharge each tank;
 - the ship should define a target operating pressure for the cargo tanks. This pressure should be as high as safely possible and the ship should aim to maintain tanks at this level during loading and sea passage;
 - when venting to reduce tank pressure is required, the pressure drop should be as small as possible to maintain the tank pressure as high as possible;
 - the amount of inert gas added should be minimized. Increasing tank pressure by adding inert gas does not prevent VOC release but it may increase venting and hence increased VOC emissions; and

- when crude oil washing is considered, its effect on VOC emissions should be taken into account. VOC emissions can be reduced by shortening the duration of the washing or by using a closed cycle crude oil washing unit.

2 Matters to be addressed in the VOC management plan

.1 Designated person in charge of carrying out the plan

- A person shall be designated in the VOC management plan to be responsible for implementing the procedures within the plan;

.2 Procedures for reducing VOC emissions

- Taking the best practice and information listed in paragraph 1.4 above and giving due consideration to safety, procedures shall be written or modified to cover the following operations:
 - *Loading,*
 - *Sea passage,*
 - *Discharge,*
 - *Crude oil washing.*
- If the ship is equipped with VOC reduction equipment, the use of this should be incorporated into the above procedures as appropriate; and

.3 Training and education

- Describe the training or education programmes to facilitate best practice operation of the ship for minimum VOC emissions.

ANNEX 7

**DRAFT REVISED TIMETABLE FOR COMPLETING THE REVISION
OF MARPOL ANNEX VI**

1 MEPC 56 (July 2007) is invited to:

- consider and approve the work done so far;
- provide instructions on the remaining work;
- extend the target completion date by one year;
- approve an intersessional meeting (BLG-WGAP 2) to be held before the end of 2007; and
- instruct the Secretariat to issue the invitation circular for such meeting.

2 The intersessional meeting of the Working Group on Air Pollution (BLG-WGAP 2) (October/November 2007) should:

- continue the revision work from BLG 11; and
- report to BLG 12.

3 BLG 12 (February 2008) should finalize all technical revisions and report the outcome to MEPC 57 (March/April 2008) for consideration and approval, which could then be circulated for adoption at MEPC 58 (October 2008).

ANNEX 8**PROPOSED AMENDMENT TO MARPOL ANNEX VI, REGULATION 12****Existing regulation 12****Ozone-depleting substances**

- (1) Subject to the provisions of regulation 3, any deliberate emissions of ozone depleting substances shall be prohibited. Deliberate emissions include emissions occurring in the course of maintaining, servicing, repairing or disposing of systems or equipment, except that deliberate emissions do not include minimal releases associated with the recapture or recycling of an ozone depleting substance. Emissions arising from leaks of an ozone depleting substance, whether or not the leaks are deliberate, may be regulated by Parties to the Protocol of 1997.
- (2) New installations which contain ozone depleting substances shall be prohibited on all ships, except that new installations containing hydrochlorofluorocarbons (HCFCs) are permitted until 1 January 2020.
- (3) The substances referred to in this regulation, and equipment containing such substances, shall be delivered to appropriate reception facilities when removed from ships.

Additional paragraph agreed by BLG-WGAP 1

- (4) This regulation does not apply to permanently sealed equipment where there are no refrigerant charging connections or potentially removable components, e.g., household refrigerators and air conditioning units.

Proposed additional paragraph 5

- (5) Every ship of 400 gross tonnage and above which has rechargeable systems that contain ozone depleting substances (ODS) shall be provided with an ODS Record. This record may form part of an existing log book system.
- (6) The ODS Record in terms of mass (kg) of substance, shall be completed without delay on each occasion, in respect of the following:
- (a) recharge, full or partial, of ODS equipment;
 - (b) Discharge of ODS to atmosphere;
 - (i) Deliberate;
 - (ii) Non-deliberate;
 - (c) Discharge of ODS to land based reception facilities;
 - (d) On supply of ODS to the ship;
 - (e) Repair or maintenance of equipment containing ODS.

ANNEX 9

IACS UNIFIED INTERPRETATION GC 11

GC 11 Loading of cargo C tanks

(Mar 2006)

(paragraphs 15.1.2 and 15.1.5)

Paragraph 15.1.2 reads: 15.1.2 *“The maximum loading limit (LL) to which a cargo tank may be loaded should be determined by the following formula:*

$$LL = FL \frac{\rho_R}{\rho_L}$$

where :

- LL* = loading limit expressed in percent which means the maximum allowable liquid volume relative to the tank volume to which the tank may be loaded
- FL* = filling limits as specified in 15.1.1 or 15.1.3
- ρ_R* = relative density of cargo at the reference temperature; and
- ρ_L* = relative density of cargo at the loading temperature and pressure.”

Paragraph 15.1.5 reads: *“The Administration may allow type C tanks to be loaded according to the following formula provided that the tank vent system has been approved in accordance with 8.2.18:*

where:

- LL* = loading limit as specified in 15.1.2;
- FL* = filling limits as specified in 15.1.1 or 15.1.3;
- ρ_R* = relative density of cargo at the highest temperature which the cargo may reach upon termination of loading, during transport, or at unloading, under the ambient design temperature conditions described in 7.1.2; and
- ρ_L* = as specified in 15.1.2.

This paragraph does not apply to products requiring a type IG ship.”

Interpretation

Regardless of the date of construction of the ship, type C cargo tanks can be loaded in accordance with the provisions of paragraph 15.1.5 or, alternatively, to the provisions of paragraph 15.1.2.

Note:

This Unified Interpretation is to be applied by all Members and Associate on or after 1 July, 2006.

IACS Int. 2006

ANNEX 10

**PROPOSED REVISED WORK PROGRAMME OF THE SUB-COMMITTEE
AND PROVISIONAL AGENDA FOR BLG 12**

PROPOSED REVISED WORK PROGRAMME OF THE SUB-COMMITTEE

		Target completion date/number of sessions needed for completion	Reference
1	Evaluation of safety and pollution hazards of chemicals and preparation of consequential amendments	Continuous	BLG 10/19, section 3
2	Casualty analysis (co-ordinated by FSI)	Continuous	MSC 70/23, paragraphs 9.17 and 20.4; MSC 80/24, paragraph 21.6; BLG 10/19, section 10
3	Consideration of IACS unified interpretations	Continuous	MSC 78/26, paragraph 22.12; BLG 10/19, section 9
H.1	Environmental and safety aspects of alternative tanker designs under MARPOL 73/78, regulation I/13F		BLG 3/18, paragraph 15.7
	.1 assessment of alternative tanker designs, if any (as necessary)	Continuous	BLG 1/20, section 16; BLG 4/18, paragraph 15.3
H.2	Oil tagging systems	2008	MEPC 45/20, paragraph 17.4; BLG 8/18, section 10 and paragraph 15.4.3

Notes: 1 “H” means a high priority item and “L” means a low priority item. However, within the high and low priority groups, items have not been listed in any order of priority.

2 Items printed in bold letters have been selected for the provisional agenda for BLG 11.

		Target completion date/number of sessions needed for completion	Reference
H.3	2	Development of provisions for gas-fuelled ships (in co-operation with FP and DE)	2007 2009 MSC 78/26, paragraph 24.11; BLG 10/19, section 6 BLG 11/16, section 6
H.4	3	Development of guidelines for uniform implementation of the 2004 BWM Convention	2007 2008 MEPC 52/24, paragraph 2.21.6; BLG 10/19, section 4 BLG 11/16, section 4
H.6	4	Amendments to MARPOL Annex I for the prevention of marine pollution during oil transfer operations between ships at sea	2007 2008 MEPC 53/24, paragraph 20.6; BLG 10/19, section 15
H.7	5	Review of MARPOL Annex VI and the NO_x Technical Code	2007 2008 MEPC 53/24, paragraph 4.50; BLG 10/19, section 14 BLG 11/16, section 5
H.8	6	Application of the requirements for the carriage of bio-fuels and bio-fuel blends	2008 MEPC 55/23, paragraphs 19.4 and 19.5
L.1		Guidelines on other technological methods verifiable or enforceable to limit SO_x emissions	two sessions MEPC 53/24, paragraph 4.40 BLG 11/16, section 9

DRAFT PROVISIONAL AGENDA FOR BLG 12*

- Opening of the session
- 1 Adoption of the agenda
 - 2 Decisions of other IMO bodies
 - 3 Evaluation of safety and pollution hazards of chemicals and preparation of consequential amendments
 - 4 Application of the requirements for the carriage of bio-fuels and bio-fuel blends
 - 5 Development of guidelines for uniform implementation of the 2004 BWM Convention
 - 6 Review of MARPOL Annex VI and the NO_x Technical Code
 - 7 Development of provisions for gas-fuelled ships
 - 8 Amendments to MARPOL Annex I for the prevention of marine pollution during oil transfer operations between ships at sea
 - 9 Casualty analysis
 - 10 Consideration of IACS unified interpretations
 - 11 Work programme and agenda for BLG 13
 - 12 Election of Chairman and Vice-Chairman for 2009
 - 13 Any other business
 - 14 Report to the Committees

* Agenda item numbers do not necessarily indicate priority.

ANNEX 11**JUSTIFICATION TO THE MARITIME SAFETY COMMITTEE FOR A NEW
WORK PROGRAMME ITEM ON THE REVIEW OF RESOLUTION MSC.150(77) –
RECOMMENDATION FOR MATERIAL SAFETY DATA SHEETS
FOR MARPOL ANNEX I CARGOES AND MARINE FUELS****Scope of the proposal:**

Examine the text and prescribed parameters included of resolution MSC.150(77) in order to ensure that a standard format is presented such that its contents are practical and accurately and effectively align with current best and future practices of health, safety and environmental protection.

Need or compelling need:

Draft SOLAS regulation VI-5/1 is expected to enter into force in 2009. In the proposed regulation a footnote is included in which a reference is made to resolution MSC.150(77). This resolution states the format and content of an MSDS. Without a resolution giving a fully agreed version of the MSDS, the timely and successful implementation of SOLAS is at significant risk.

Analysis of the issues involved:

MSDS are currently compiled in accordance with MSC.150(77) and other standards as required by Member States. It is apparent that some Member States and Organizations now believe that such MSDS do not produce the best safety outcome and can be impractical. There is a move to harmonize around a common accepted standard.

There are other standards which can be used to compile MSDS and as such seafarers are presented with a variety of formats. There is therefore a potential for misinterpretation or misunderstanding which needs to be removed.

Costs to the maritime industry, as well as the associated legislative and administrative burden:

Negligible.

Benefits:

Agreed standard formatting.

Wide acceptance.

Harmony with international regulations.

Improved awareness of safety and environmental considerations for first responders to incidents.

Priority and target completion date:

High. 2008.

Specific indication of the action required:

As defined in scope.

Is the subject of the proposal within the scope of IMO's objectives?

Yes – this will improve both seafarer and responder safety and awareness and will ensure timely implementation of SOLAS new regulations.

How is the proposed item related to the scope of the Strategic plan for the Organization and fits into the High-level action plan?

This is clearly related to safety and marine environmental protection and the enhancement of seafarer safety and, therefore, explicitly within Strategic and High-level action plans.

Do adequate industry standards exist?

Many standards exist; however, in the interests of improvement in seafarer safety, the wish is now to establish a widely accepted common standard.

Do the benefits justify the proposed action?

Yes.

Identification of which committee/subsidiary body(ies) are essential to complete the work:

Sub-Committee on Bulk Liquids and Gases.

Estimation of the number of sessions needed to complete the work:

One session; but recommended to be placed on agenda to ensure completion by BLG 12.

Human Element Consideration:

The MSDS is a crucial part of communication of hazards associated with products. An improvement in the MSDS format would improve such communication to provide enhanced comprehension of the potential risks.
