



SUB-COMMITTEE ON BULK LIQUIDS
AND GASES
9th session
Agenda item 17

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**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 ninth session from 4 to 8 April 2005 under the chairmanship of Mr. Z. Alam (Singapore), who was re-elected for 2005 at the opening of the session. The Vice-Chairman, Mr. S. Oftedal (Norway), was also re-elected for 2005.

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

ALGERIA	LEBANON
ARGENTINA	LIBERIA
AUSTRALIA	MALAYSIA
BAHAMAS	MARSHALL ISLANDS
BOLIVIA	MEXICO
BRAZIL	NETHERLANDS
CANADA	NEW ZEALAND
CHILE	NIGERIA
CHINA	NORWAY
COLOMBIA	PANAMA
CUBA	PERU
CYPRUS	POLAND
DEMOCRATIC REPUBLIC OF THE CONGO	REPUBLIC OF KOREA
DENMARK	ROMANIA
EGYPT	RUSSIAN FEDERATION
ESTONIA	SAUDI ARABIA
FINLAND	SINGAPORE
FRANCE	SLOVENIA
GERMANY	SPAIN
GREECE	SWEDEN
INDONESIA	TURKEY
IRAN (ISLAMIC REPUBLIC OF)	TUVALU
IRELAND	UKRAINE
ISRAEL	UNITED KINGDOM
ITALY	UNITED STATES
JAPAN	URUGUAY
LATVIA	VENEZUELA

by an observer from the following intergovernmental organization:

EUROPEAN COMMISSION (EC)

and observers from the following non-governmental organizations:

INTERNATIONAL CHAMBER OF SHIPPING (ICS)
 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)
 FRIENDS OF THE EARTH INTERNATIONAL (FOEI)

INTERNATIONAL ASSOCIATION OF OIL AND GAS PRODUCERS (OGP)
COMMUNITY OF EUROPEAN SHIPYARDS' ASSOCIATIONS (CESA)
INTERNATIONAL ASSOCIATION OF INDEPENDENT TANKER OWNERS
(INTERTANKO)
SOCIETY OF INTERNATIONAL GAS TANKER AND TERMINAL OPERATORS
LIMITED (SIGTTO)
DANGEROUS GOODS ADVISORY COUNCIL (DGAC)
INTERNATIONAL PARCEL TANKERS ASSOCIATION (IPTA)
INTERNATIONAL SAILING FEDERATION (ISAF)
INTERNATIONAL FEDERATION OF SHIPMASTERS' ASSOCIATIONS (IFSMA)

The Secretary-General's opening address

1.3 The Secretary-General welcomed the participants, especially those delegates attending the BLG Sub-Committee for the first time.

At the invitation of the Secretary-General, the Sub-Committee rose to one minute's silence to pay tribute to Pope John Paul II in recognition of his contribution to the pursuance of peace worldwide and to his dedication to reconciliation and the dignity of the human being.

The Secretary-General then referred to the Council's decision in November of last year that the theme for this year's World Maritime Day would be "International Shipping – Carrier of World Trade", a theme which will give the opportunity to direct attention to the image of shipping and seek ways and means to improve it.

The Secretary-General expressed concern that the contribution shipping makes to the global economy and the community as a whole, by providing the facilitation mechanism for more than 90 per cent of world trade, is far too easily overlooked when shipping can claim to be largely safe, secure, efficient, environmentally friendly and constantly striving to improve its overall performance.

He called on all with an interest in shipping to work together to reverse this mistaken perception, principally by adding their contribution to preventing accidents occurring in the first place. He underlined that accidents taint the image of shipping, no matter how isolated in numbers and severity they are nowadays.

The Secretary-General highlighted that, since the BLG Sub-Committee last met in 2003, the Maritime Safety Committee and the Marine Environment Protection Committee had made several important decisions and of particular significance was the adoption of the revised MARPOL Annexes I and II, which are expected to enter into force on 1 January 2007, and the adoption of consequential amendments to the IBC Code, which are also expected to enter into force on 1 January 2007, together with the revised MARPOL Annex II. In this regard, he commended the preparatory work put in by the Sub-Committee.

Referring to the adoption of the Ballast Water Management (BWM) Convention in February 2004, the Secretary-General considered this a significant step towards controlling the introduction into the marine environment of aquatic invasive species via ships' ballast water, a problem which has its roots in the increased trade and traffic volume which characterized the last few decades. It also demonstrated the ability of IMO to achieve consensus on aspects of undeniable complexity related to the marine environment. He urged delegations to invite their Governments to give favourable consideration to becoming a party to the BWM Convention at their earliest convenience.

The Secretary-General recalled that, last year, the MEPC agreed to a comprehensive programme for the development of guidelines for the uniform implementation of the BWM Convention and welcomed the progress made so far by all sub-committees involved. He hoped that the BLG Sub-Committee would be able to contribute significantly to this endeavour by having appropriate guidelines developed at the earliest opportunity.

Having singled out the above matters, the Secretary-General recognized that other issues, such as the evaluation of safety and pollution hazards of chemicals; the review of resolution MEPC.2(VI) and the development of standards for the establishment of the rate of sewage discharge; the review of the fire protection requirements of the IBC, IGC, BCH and GC Codes; the review of the OSV Guidelines; the clarification of the definition of fuel oil in the revised MARPOL Annex I; the development of guidelines for the application of MARPOL Annex I requirements to FPSOs and FSUs; and the development of provisions for gas-fuelled ships, were equally important in the Sub-Committee's quest for enhanced maritime safety and prevention of marine pollution.

The Secretary-General concluded by expressing confidence that the Sub-Committee would make considerable progress on all issues on its agenda.

Chairman's remark

1.4 In responding, the Chairman thanked the Secretary-General for his words and advice and stated that the Secretary-General's advice and requests 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 9/1/Rev.1) and agreed, in general, to be guided in its work by the annotations contained in document BLG 9/1/1. The agenda, as adopted, with the list of documents considered under each agenda item, is set out in document BLG 9/INF.2.

2 DECISIONS OF OTHER IMO BODIES

General

2.1 The Sub-Committee noted the decisions taken by the NAV, SLF, DSC, COMSAR, FP, STW and DE Sub-Committees and the Committees, since their last session, relevant to the work of the Sub-Committee (BLG 8/2, BLG 9/2/1, BLG 8/2/2 and BLG 8/2/3), and took them into account in its deliberations when dealing with relevant agenda items.

Method of work related to new work programme items

2.2 The Sub-Committee noted that MSC 77 (BLG 9/2) had decided that, in the future, sub-committees should avoid developing unified interpretations for guidelines. In cases where the existing text of the guidelines is vague and needs modifications, the sub-committee concerned should amend the guidelines accordingly in lieu of developing unified interpretations.

2.3 The Sub-Committee also noted that MSC 78 (BLG 9/2/1) had agreed that a decision to include a new item in a sub-committee's work programme did not mean that the Committee had agreed with the technical aspects of the proposal. Therefore, if the Committee decided to include

the item in the sub-committee's work programme, detailed consideration of the technical aspects of the proposal and the development of appropriate requirements and recommendations would be left to the sub-committee concerned.

Outcome of C 92

2.4 The Sub-Committee noted that C 92 (BLG 9/2/1) had:

- .1 approved Guidelines for media access to meetings of Committees and their subsidiary bodies;
- .2 instructed IMO bodies to follow the above Guidelines when applying their Rules of Procedure on requests from the news media to attend their meetings;
- .3 noted that an accreditation system would be established to allow automatic access to IMO meetings to representatives of the specialist maritime media; and requested the Secretary-General, when proceeding with the establishment of such a system, to take into account similar systems applying elsewhere (e.g., in the United Nations);
- .4 decided that the distribution of hard copies of meeting documents to IMO Member States be limited to one copy per delegation, as from 1 July 2004, subject to some flexibility in recognition of the fact that some Member States may have difficulties in accessing the documents on the IMODOCS website; and
- .5 decided that non-governmental organizations would not receive meeting documents in hard copy as from 1 July 2004.

Trial reporting systems

2.5 With respect to the new reporting system, the Sub-Committee noted that MSC 79 (BLG 9/2/3), taking into account the views of MEPC 52 and their endorsement by C 93, had decided to halt the trial of the new reporting procedure and re-establish the previous reporting procedure with immediate effect.

Outcome of MEPC 49, MEPC 50, MEPC 51 and MEPC 52

2.6 The Sub-Committee noted that since it held its eighth session (24 to 28 March 2003), there have been four sessions of the Marine Environment Protection Committee (MEPC): MEPC 49 (14 to 18 July 2003), MEPC 50 (1 to 4 December 2003), MEPC 51 (29 March to 2 April 2004) and MEPC 52 (11 to 15 October 2004). Many of the issues discussed at the aforementioned sessions had been overtaken by events in each subsequent meeting. Those which have remained pertinent to the work of this session of the Sub-Committee were identified in BLG 9/2/2 and the Sub-Committee discussed these issues under their separate agenda items.

2.7 The Sub-Committee recalled that MEPC 52 had adopted, by resolutions MEPC.117(52) and MEPC.118(52) respectively, the revised MARPOL Annexes I and II in accordance with article 16(2)(b), (c) and (d) of the MARPOL Convention, which are expected to enter into force on 1 January 2007.

2.8 The Sub-Committee also recalled that MEPC 52 had also adopted, by resolution MEPC.119(52), consequential amendments to the IBC Code in accordance with article 16(2)(b),

(c) and (d) of the MARPOL Convention, which are expected to enter into force on 1 January 2007 together with the revised MARPOL Annex II. It also had adopted, by resolution MEPC.120(52), Guidelines for the transport of vegetable oils in deep tanks or in independent tanks especially designed for the carriage of such vegetable oils in general dry cargo ships.

2.9 The Sub-Committee further noted that MEPC 52, in considering the draft terms of reference for the sub-committees, highlighted that the mandate to the sub-committees should include explicit references to marine environment issues and noting that the draft terms of reference of the sub-committees still remained to be updated, had agreed to give further consideration to the matter at MEPC 53 after MSC 79.

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 agreed that document BLG 9/3/2 (Secretariat) which dealt with the proposal for the addition of dimethyl ether to chapter 19 of the IGC, would be considered under item 5.

Report of the intersessional meeting of the ESPH Working Group

3.3 In considering the report of the intersessional meeting of the ESPH Working Group, (BLG 9/3), the Sub-Committee approved the report in general and noted the following points made by the Chairman of the ESPH Working Group, Mrs. M.C. Tiemens-Idzinga (Netherlands):

- .1 the group evaluated sixteen candidate products for inclusion in the list of cleaning additives meeting the requirements of paragraph 1.8.2 of the P&A Standards, all of which were found to meet the requirements. The group noted that a number additives were not submitted as per usual practice, which is through a Member State present at the meeting but through the Secretariat and felt that this course of action should *not* be promoted taking into account the confidentiality of the data submitted. The group agreed on the need to develop a new reporting form for cleaning additives as a consequence of the revised MARPOL Annex II. The group also reiterated that there was *no* need to re-evaluate the additives currently in annex 12 of the MEPC.2/Circ.
- .2 the group evaluated twenty-two new substances of which dimethyl disulphide was an outstanding item from ESPH 9 for which the necessary additional data had been submitted. The group agreed that all data required were present and supported the proposal to amend the relevant entry in List 1 of the MEPC.2/Circ.
- .3 the group evaluated the remaining twenty-one submissions dealing with vegetable oils, including proposed Pollution categories, Ship type and carriage requirements as well as the supporting data which were based on those originally submitted to the GESAMP/EHS Working Group for hazard evaluation; and:

- .3.1 in evaluating the submissions, the group expressed concern on missing data in particular for mammalian toxicity, however, to make progress on the evaluations, additional data provided by the delegation, originator of the submissions, were accepted during the meeting;
- .3.2 during the process, the group expressed concern that discrepancies existed between the submissions to GESAMP/EHS Working Group and those submitted to the group, particularly regarding the free fatty acid concentrations in the vegetable oils. The group agreed to evaluate these products on the basis of the free fatty acid content as submitted to the GESAMP/EHS Working Group. Since the amount and composition of the free fatty acid could have a bearing on safety requirements, the group also agreed to qualify each product name of the individual vegetable oil with the content (in percentage) of the free fatty acid submitted to the GESAMP/EHS and that any identical vegetable oil with a higher content of free fatty acid needed re-evaluation based on a modified submission;
- .3.3 in discussing the individual entries for vegetable oils, the group noted that approximately 140 synonyms were proposed and it was agreed that these should be kept to a minimum and that the Index to the IBC Code should include only those synonyms which would not be easily recognizable by their product name;
- .3.4 the group noted the difficulties that existed in handling the translation of synonyms of products as well as when the synonym existed only in one of the official languages of the Organization. The group agreed that this may have a bearing on the Index to the IBC Code when it would be published in the different languages and decided to refer this issue to the Sub-Committee;
- .3.5 the group agreed that for blended and co-mingled vegetable oils, the same procedure for assessment should be followed as for any other pollutant-only mixture and that the aspects of discharge temperatures and viscosity for vegetable oils are covered in paragraph 16.2.6 of the revised IBC Code;
- .4 in line with normal procedure, the group considered those products reported to IMO for inclusion in MEPC.2/Circ.10 and those which would be past their expiry date by 17 December 2004, and made editorial amendments and deletions as appropriate;
- .5 in carrying out this task, the group expressed concern that of the ten substances given an extension at ESPH 9, only *one* had been submitted to ESPH 10 to enable a complete evaluation. The group felt strongly that granting an extension to a three year tripartite agreement without follow-up action by reporting States defeats the purpose of granting an extension and it urged for more vigilance in the follow-up action and agreed to bring to the attention of the Sub Committee that extensions to the 3 year-period should no longer be an option;
- .6 the group recognized that for the sake of clarity and to ensure proper direction, there was a need to give further consideration to the publication of List 1 of MEPC.2/Circ. since in the transitional period that the revised IBC comes into

force on 1 January 2007, new substances will be evaluated as well as those omitted from the IBC Code due to missing data. The group recognizing that the database is an essential tool and might need modification to facilitate the work during the transitional period, expressed concern on the management of data in the IMO bulk chemical database and the associated increase in workload. Since this might have financial implications, it was agreed to bring this to the attention of the Sub-Committee;

- .7 the group, in noting the consolidation of all evaluations of products subject to the IBC Code made to date by the GESAMP/EHS Working Group, underlined that the final date for submissions for the inclusion of substances in List 1 of MEPC.2/Circ, prior to the entry into force of the revised Annex II to MARPOL 73/78, was 17 December 2005;
- .8 in discussing the proposal of the GESAMP/EHS Working Group that the three entries Paraffin Wax, Petrolatum and Waxes could appear under one entry - Hydrocarbon Waxes - in the IBC Code, the group agreed to retain the three entries currently in the IBC Code because of the difference in safety hazards of the three products and the possibility of misuse of such a broad entry;
- .9 the group, in noting the future work programme of the GESAMP/EHS Working Group, underlined that lube-oil additives be given priority as the results of the evaluations of these additives were needed to carry out calculations for mixtures in List 2 of MEPC.2/Circ;
- .10 the group underlined the need for IMO to attend relevant meetings organized within the framework of the UN/GHS to ensure harmonization between the GHS and the GESAMP/EHS procedure for product hazard evaluation;
- .11 since no further developments had take place on the long outstanding matter on the classification of polyols, the group agreed to close the matter and that additional polyols would be evaluated on the basis of data submitted;
- .12 having considered section 5 of document ESPH 10/8, and after adjusting the figures in paragraph 5.2 and the flow chart for assigning Ship Type, the group agreed on the calculation for the assignment of pollutant-only mixtures. Consequentially, the group was able to develop the n.o.s. entries for pollutant-only mixtures and their associated carriage requirements which were included in the proposed chapters 17 and 18 of the revised IBC Code to MEPC 52 and MSC 79 and which received final adoption at the two meetings;
- .13 as instructed by MEPC 51, the group started to consider the Guidelines referenced in the 2002 consolidated edition of MARPOL Annex II to determine their status in respect of the revised MARPOL Annex II and made substantial progress as shown in annex 6 to document BLG 9/3;
- .14 when discussing the Guidelines for the provisional assessment of liquids transported in bulk (MEPC/Circ.265), the group agreed that the procedures for submitting data to both GESAMP/EHS and ESPH respectively should be reconsidered. Consequentially, it was recognized that the guidelines for completing the BLG Product Data Report Form and the associated circular need further consideration;

- .15 the group considered the Guidelines for the transport and handling of limited amounts of hazardous and noxious liquid substances in bulk on offshore support vessels (resolution A.673(16)) but recognized that the guidelines still required further consideration. The group however, noted that there is a need to involve the DSC Sub-Committee in the process on the revision of resolution A.673(16) since there is a reference to the IMDG Code in paragraph 3.4.2 which might need an up-date. The group also noted that the SLF, FP and DE Sub-Committees are also working on resolution A.673(16) and a related resolution A.469(XII) on offshore supply vessels and there is a need that the processes of review allow that the various guidelines should have a completion date that coincides with the entry in force of MARPOL Annex II, i.e., 1 January 2007 and, consequently, proposed that the BLG Sub-Committee undertakes the co-ordinating role in the process. The Chairman of the ESPH Working Group also noted in her intervention that there is another IMO instrument concerning offshore supply vessels, resolution A.863(20), in which reference is made to resolution A.673(16); and
- .16 the group, whilst acknowledging that the BCH Code is mandatory under MARPOL Annex II, recognized that the number of tankers built before 1 July 1986 and in service on 1 January 2007 is expected to be reduced considerably in the years after entry into force of the revised IBC Code. The group agreed that an exercise to revise the BCH Code as has been undertaken for the IBC Code was therefore not warranted. The group identified the consequential amendments that are necessary as a result of the revised MARPOL Annex II and consequential to the IBC Code and requested the Sub-Committee to agree to this approach and to develop a resolution to adopt the proposed amendments for forwarding to the MEPC and MSC for approval.

3.4 On a matter of clarification, FOEI noted that annex 2 of BLG 9/3 lists cleaning additives which appear to be analogous to active substances for ballast water treatment in the Guideline (G9) under the BWM Convention. FOEI questioned whether there is a need to rationalize the chemical terminology and evaluation protocols used for ballast water treatment active substances with those for ESPH to avoid confusion and duplication and to ensure consistency with IMO procedures.

3.5 FOEI further inquired that with the GESAMP position currently somewhat fluid, and with ESPH Working Group dependent on GESAMP/EHS Working Group for objective environmental assessment of chemicals, what will happen in the future for the environmental evaluation of chemical substances?

3.6 The Sub-Committee agreed that it would be more appropriate to discuss the issue of rationalization of chemical terminology and evaluation protocols under agenda item 11 – development of guidelines for uniform implementation of the 2004 BWM Convention.

3.7 In response to the query on the evaluation of chemical substances, the Director of the Marine Environment Division recalled that while MEPC 52 had been invited to review the “New GESAMP”, it was not in a position to have a conclusive opinion on the new strategic direction, however the Committee had reiterated its position that the work currently carried out by GESAMP was very important and useful to the work of IMO, in particular in its role as an independent and impartial adviser when it evaluates the hazards of noxious liquid substances under MARPOL Annex II and the IBC Code. It therefore agreed that the arrangement should be guaranteed through the continuation of current funding.

Action taken by the Sub-Committee

3.8 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 done and, having considered the work carried out at the intersessional meeting of the ESPH Working Group, took action as indicated hereunder:

- .1 agreed that, for any of the languages that the IBC Code is published in, the Index should only contain those synonyms utilized in that language and synonyms should not be translated from one IMO official language to another;
- .2 agreed to, in light of the comments by IPTA (BLG 9/3/4), which found support by other delegations on the need to include the proposed synonyms on vegetable oils and animal fats in the Index of the IBC Code or by creating an additional annex in the MEPC.2/Circ, task the ESPH Working Group to identify the most suitable IMO document to capture this information;
- .3 noted the evaluations for the different vegetable oils;
- .4 noted the discussions on the products in MEPC.2/Circ.10;
- .5 with regard to extensions beyond the stipulated 3-year period for tripartite agreements, one delegation noted that there may be circumstances when an extension may be required, whilst industry representatives inquired whether proposals for extensions beyond the 3-year period would be allowed if a substance was still undergoing the hazard evaluation process by the GESAMP/EHS Working Group. Following the interventions by a majority of delegations that the 3-year period was sufficient to carry out the necessary testing and follow-up with the GESAMP/EHS Working Group, the Sub-Committee agreed to instruct the group to reject proposals for extensions for tripartite agreements beyond the stipulated 3-year period;
- .6 whilst noting that this matter had been raised previously at both MEPC 52 and MSC 79, reiterated the need for IMO to take the necessary measures to ensure that resources are in place so that the chemical database developed by the Secretariat is modified to facilitate the work of the Organization. The delegation of Panama reiterated the need for providing data associated with the lists of products subject to the IBC Code in a format suitable for uploading into external databases as this will facilitate interested parties' ability to implement the changes of the revised MARPOL Annex II and the IBC Code. The Secretariat informed the Sub-Committee that it has prepared a submission to MSC 80 and MEPC 53 proposing possible technical solutions to restructuring the database as well as the cost-effective options it had considered;
- .7 noted that the issue regarding the final date of 17 December 2005 for submissions for inclusion of products in List 1 of MEPC.2/Circ, prior to the entry into force of MARPOL Annex II, had been dealt with following MSC 79 through the publication of the joint MSC/MEPC circular (MSC/Circ.1128-MEPC/Circ.423) listing those products which, due to missing pollution or safety data, have been omitted from the revised IBC Code, and instructed the Secretariat to make available the GESAMP/EHS Product Data Reporting Form on the IMO public

domain website. One delegation emphasized that the onus lies with the industry to ensure that complete information reaches the GESAMP/EHS Working Group in a timely manner;

- .8 agreed that lube-oil additives be given priority by the GESAMP/EHS Working Group. The United States sought clarification on the need for bioaccumulation and mammalian toxicity information for edible oils and fats and requested that guidance be sought from the Working Group. The Sub-Committee requested the Working Group to give this issue consideration during its deliberations;
- .9 agreed on the need for IMO to attend relevant meetings organized with the framework of the UN Sub-Committee on GHS and to inform MEPC and MSC accordingly;
- .10 approved the calculation methodology for the assignment of pollutant only mixtures for Pollution Category and Ship Type, as set out in section 5 of annex 4 of document BLG 9/3;
- .11 noted that the n.o.s. entries developed by the group for pollutant only mixtures and their associated carriage requirements which were included in the proposed Chapters 17 and 18 of the revised IBC Code had been adopted at MEPC 52 and MSC 79;
- .12 agreed that further work was needed on the cross-referencing of the Guidelines in revised MARPOL Annex II;
- .13 agreed on the withdrawal of the Guidelines for the application of amendments to the list of substances in MARPOL Annex II, the IBC Code and the BCH Code with respect to pollution hazards on the grounds that these Guidelines served the purpose at the time they were developed but were now outdated. In this context, the Sub-Committee also noted the submission by Japan (BLG 9/3/3). The delegation of Japan, in introducing the document, noted that after having prepared the document, it had considered the matter further and recognized that the guidelines were no longer essential since they are not referenced in the revised MARPOL Annex II. The delegation of Japan therefore decided to withdraw the document;
- .14 agreed to the proposed amendments to resolution MEPC.85(44), as set out in annex 1, and tasked the Secretariat to prepare the text of the suggested changes including those concerning MARPOL Annex I for submission to MEPC 53 for approval since resolution MEPC.85(44) concerns both MARPOL Annex I and Annex II and the changes are consequential and editorial;
- .15 agreed to the proposed amendments to resolution A.851(20), as set out in annex 2, and recommended to the MSC and MEPC to approve them and take further action as appropriate;
- .16 agreed on the consequential amendments to the Guidelines for the transport and handling of limited amounts of hazardous and noxious liquid substances in bulk on offshore support vessels (resolution A.673(16)), recognizing that the Guidelines, in particular appendix 1 still required further consideration by the ESPH Working Group (refer to paragraphs 3.45 to 3.47) and that it deals with the

issue of co-ordination under the agenda item 10 (Review of the OSV Guidelines). The Sub-Committee drew the attention of the MEPC and MSC on the need to involve the DSC Sub-Committee in the revision of resolution A.673(16) in view of the reference to the IMDG Code in the text which may need updating. The Sub-Committee also recognized the need that the process of review by the SLF, FP and DE Sub-Committees of resolution A.673(16) and the related resolution A.469(XII) on Guidelines for the design and construction of supply vessels should have a completion date that coincides with the entry in force of MARPOL Annex II, i.e., 1 January 2007;

- .17 recommended that draft amendments to the BCH Code be prepared for approval by MEPC 53. Bearing in mind that the BCH Code is mandatory under MARPOL Annex II, the Sub-Committee noted that the proposed amendments should be circulated as soon as approved by MEPC 53 for adoption by MEPC 54 (March 2006). The amendments to the BCH Code may then be adopted by MSC 81 (May 2006), noting that the BCH Code is a recommendatory instrument (refer to paragraph 5.15 and annex 3); and
- .18 approved the future work programme of the ESPH Working Group including the consideration of content of List 1 in MEPC.2/Circ., as set out in annex 8 to document BLG 8/3.

Clarification of the requirements of the revised MARPOL Annex II for gas carriers

3.9 IACS, in its document BLG 9/3/1, noted that the text of the revised MARPOL Annex II may have unforeseen as well as unintended consequences for gas carriers certified in accordance with the equivalency clause in regulation 5.3 of MARPOL Annex II and considered that gas carriers built before 1 January 2007 will generally not be able to comply with the revised requirements of regulations 12.1, 12.2 or 12.3 for maximum permissible residue quantity in the cargo tanks after unloading.

3.10 IACS noted that in its view, enforcing the requirements as given in the revised MARPOL Annex II seems to be very close to terminating the possibility for gas carriers (built before 1 January 2007) to transport noxious liquid substances included in chapter 19 of the IGC Code. In this regard, IACS sought clarification from the Sub-Committee on the equivalency clause in regulation 5.3 of the revised MARPOL Annex II for gas carriers.

3.11 The delegation of the Netherlands recalled that the possible consequences were taken into consideration during the discussions at BLG 1, 2, 3 and 4 when developing the equivalency for gas carriers in the revised MARPOL Annex II.

3.12 With respect to the intervention of IACS, Norway noted that further consideration and clarification was required on the revised MARPOL Annex II regulation 13.1 concerning the discharge provisions and regulations 12.6 and 12.7 on the requirement for an underwater discharge outlet for gas carriers.

3.13 Following a short discussion, the Sub-Committee tasked the ESPH Working Group to consider the matter further and report back to plenary later in the week.

Items raised at MEPC 52

Implementation of the revised MARPOL Annex II and the revised IBC Code

3.14 The Sub-Committee recalled that Norway, in its submission (MEPC 52/5/4), addressed the issue of the practical problems that may arise in connection with the implementation of the requirements under the revised MARPOL Annex II and the revised IBC Code. MEPC 52 had agreed to instruct BLG 9 to examine the practical problems raised by Norway and others that may be identified in connection with the practical implementation of the revised requirements.

3.15 The Sub-Committee noted that MEPC 52 also had agreed that in view of the deadline for the entry into force of the revised requirements, the BLG Sub-Committee should address these at its next session and report back to MEPC 53.

3.16 The delegation of Norway noted that the practical problems concerned two separate issues: those which were cargo-related and those which were certificate-related.

3.17 The Sub-Committee concurred with the view of Norway to task the ESPH Working Group to consider the matter further and to include the issue of the practical problems that may arise in connection with the implementation of the requirements under the revised MARPOL Annex II and the revised IBC Code as part of the group's terms of reference.

Proposed amendments to specify transitional limits in the revised IBC Code to be harmonized with other IMO instruments

3.18 The Sub-Committee recalled that in its submission MEPC 52/5/8, India had proposed comments and amendments to the revised IBC Code. The Sub-Committee further recalled that the purpose of the amendments was to harmonize phraseology to describe certain transitional limits with other IMO instruments. MEPC 52 had considered that the proposals on transitional limits were to be of a substantial nature and agreed to forward these to the BLG Sub-Committee for consideration and requested the Sub-Committee to report back to MEPC 53.

3.19 The Sub-Committee considered that the proposed amendments on transitional limits imply considerable ramifications in the application of the revised IBC Code and agreed not to accept the proposals by India.

Establishment of the working group

3.20 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 cleaning additives;
- .2 review MEPC.2/Circ, with a particular focus on the future of List 1 of MEPC.2/Circ, on how to handle synonyms for the vegetable oils and the products:
 - .1 with missing data which would have their GESAMP/EHS hazard profile complete during the interim period that the revised IBC Code comes into force on 1 January 2007;

- .2 that have been adopted by the IBC Code but due to new data may require modification in their classification; and
- .3 requiring new tripartite agreements when the revised IBC Code comes into force on 1 January 2007;
- .3 review the outstanding guidelines referenced in the 2002 consolidated edition of MARPOL Annex II, with a particular focus on:
 - .1 the Guidelines for the transport and handling of limited amounts of hazardous and noxious liquid substances in bulk on offshore support vessels (resolution A.673(16)), taking into account the discussion that the BLG Sub-Committee co-ordinates this work through the ESPH Working Group; and
 - .2 the Guidelines for the provisional assessment of liquids transported in bulk;
- .4 develop guidelines for the completion of BLG Product Data Reporting Form;
- .5 clarify regulation 5.3 of the revised MARPOL Annex II for gas carriers;
- .6 examine the issue of the practical problems that may arise in connection with the implementation of the requirements under the revised MARPOL Annex II and the revised IBC Code;
- .7 prepare the work programme and agenda for ESPH 11; and
- .8 submit a report to plenary on 7 April 2005.

Report of the working group

3.21 Having received and considered the report of the working group (BLG 9/WP.1), the Sub-Committee approved the report in general and took action as indicated hereunder.

Evaluation of new products

3.22 The Sub-Committee noted that no new products were submitted for evaluation. However, based on the clarification sought by the United States in plenary whether data on biodegradation and mammalian toxicity are necessary for the evaluation of vegetable oils and animal fats, the Sub-Committee agreed that the principles laid out in the GESAMP Reports and Studies No.64 should be used, namely:

- .1 preference is given to appropriate experimental data;
- .2 where experimental data are not available then generally accepted estimation techniques may be applied on a case-by-case basis and human experience, in instances, can be taken into account;
- .3 in cases where data on closely analogous substances are available, these may be used whether relating to marine environment or to human health.

Evaluation of cleaning additives

3.23 The Sub-Committee was informed that 24 cleaning additives had been presented for evaluation. In order to preserve the confidentiality of the composition of such additives, in line with normal practice, the Sub-Committee was further informed that the additives were evaluated by a sub-group of Administration representatives only.

3.24 The Sub-Committee noted that 16 additives met the requirements of paragraph 1.8.2 of the Standards for Procedures and Arrangements and approved their inclusion in annex 12 of the next MEPC.2/Circ. These cleaning additives are set out in annex 4 to this report. Three additives did not meet the requirements. Four products appeared to be re-evaluations of products in different composition already in the MEPC.2/Circ. These re-evaluations were also found to meet the requirements. The Sub-Committee further noted that one product was offered in a different composition for re-evaluation, but in this way it no longer met the requirements and was therefore rejected. The Sub-Committee agreed that it should remain in the MEPC.2/Circ, provided that the previous composition is still used.

3.25 Due to time constraints, the Sub-Committee noted that the Group could not develop the new Reporting Form for the Submission of Data for the Evaluation of Cargo Tank Cleaning Additives as a result of the amendments to MARPOL Annex II and therefore decided to defer this item to the next intersessional meeting of the Group. In this respect, the Sub-Committee reiterated that there was no need to re-evaluate the cleaning additives currently in annex 12 of the MEPC.2/Circ.

Review of MEPC.2/Circ – Provisional classification of liquid substances transported in bulk

3.26 The Sub-Committee reiterated its earlier view that for the sake of transparency, all recognized synonyms for vegetable oils and animal fats should be shown within an official IMO document and agreed that these should be reflected in a separate annex to the MEPC.2/Circ. In this context, the Sub-Committee also agreed that any proposed synonym should be listed in the GESAMP/EHS Product Data Reporting Form.

3.27 As a consequence of the proposal to add a new annex to the MEPC.2/Circ to handle the various synonyms associated with vegetable oils and animal fats, the Sub-Committee noted that the Group also reviewed the list of annexes of MEPC.2/Circ to determine their usefulness and applicability in respect of the revised MARPOL Annex II and the consequential amendments to the IBC Code.

3.28 The Sub-Committee noted the deletion of annex 6 of the MEPC.2/Circ and felt that the possible deletion of annexes 10 and 11 needed further consideration at the next session of the ESPH Working Group, and invited all interested parties to study and update the remaining annexes, with the exception of annexes 5 and 12, for further consideration at ESPH 11. The Sub-Committee invited all reporting States to communicate with the respective industries to re-evaluate the current entries in annexes 2, 3 and 4 of the MEPC.2/Circ, in particular those with an expiry date after 1 January 2007 or having no expiry date, since these entries will cease to be valid when the revised MARPOL Annex II enters into force, as is the case for all products currently in the IBC Code.

3.29 The Sub-Committee noted the objection by the United States to the requirement for re-evaluating the products in MEPC.2/Circ.10, annex 3, as it considered that this was not possible to do in the time available before the revised MARPOL Annex II entered into effect.

Furthermore, the United States considered that there was not adequate notice being given to the shippers of these cargoes.

3.30 Having noted the group's deliberations on the use of List 1 of MEPC.2/Circ for the interim period between now and 1 January 2007, the Sub-Committee agreed on the following approach:

- .1 for tripartite agreements using the current system (to be used until 1 January 2007), this list needs to be continued until 1 January 2007 and that entries in this list will no longer appear in the MEPC.2/Circ dated 17 December 2006. As a consequence, the expiry date for all substances will not exceed the date of 17 December 2006. For the 3 substances currently in List 1 with an expiry date of 1 January 2007, reporting States are invited to contact the manufacturers concerned with the aim of issuing a tripartite agreement under the revised MARPOL Annex II;
- .2 for tripartite agreements using the revised system (to be used after 1 January 2007), from now on any tripartite agreement should be initiated both under the current system and under the revised system since the expiry date will fall after 1 January 2007 and the validity of these agreements should be in line with the agreed practice i.e. maximum 3 years after the first appearance in the MEPC.2/Circ;
- .3 for assessments under the revised system as a consequence of an update of the revised GESAMP/EHS hazard profile, this new assessment information should only be used for the future batch of amendments to the IBC Code and not for updating the revised system at this stage;
- .4 for assessments under the revised system as a consequence of MSC/Circ.1128 - MEPC/Circ.423, the current practice of assigning carriage requirements by means of the database should be continued and that the products concerned will be added to List 1, valid for all countries and with no expiry date; and
- .5 for assessments under the revised system as a consequence of new entries in the IBC Code, the current practice should be continued based on submissions containing proposals for Category, Ship Type and carriage requirements accompanied by all necessary data and that after evaluation the products concerned will be added to List 1, valid for all countries and with no expiry date.

3.31 Regarding the time frame for issuing the IMO publication of the IBC Code, an interim MEPC.2/Circ and the approval of the products under 3.30.4 and 3.30.5, the Sub-Committee agreed as follows:

- .1 to publish the IBC Code as adopted by MEPC 52 and MSC 79 as soon as possible, including a notation that the text is as per the date of adoption and chapters 17, 18 and 19 will be subject to change; and
- .2 to request MEPC 53 to permit the publication of an interim List 1 of MEPC.2/Circ as soon as possible after BLG 10 (April 2006) so as to inform all parties involved on the latest developments necessary to implement the revised MARPOL Annex II before 1 January 2007;

- .3 to send the products following 3.30.4 and 3.30.5 above to MSC 81 for approval in principle and to MEPC 55 for approval. In this respect, the Sub-Committee agreed that chapters 17, 18 and 19 of the revised IBC Code and the substances in List 1 of MEPC.2/Circ, as appropriate, should be published as a Supplement to the revised IBC Code after approval by the Committees.

3.32 Having noted the group's consideration in connection with the implementation of the requirements under the revised MARPOL Annex II and the amended IBC Code, as identified by Norway in document MEPC 52/5/4, in particular those related to cargo and to the certificate, the Sub-Committee agreed to additional text it had agreed at BLG 7 related to the operational requirements as follows:

When a cargo is loaded prior to the entry into force date and unloaded after the entry into force date of the revised Annex II to MARPOL 73/78, the classification of the cargo at the time of loading should remain legal until it has been unloaded and consequential requirements have been met.

3.33 Having noted the concerns identified in relation to certificates, the Sub-Committee agreed to the approach set out below and invited the Committees to endorse this approach:

Type of concern	Action existing certificate	Action certificate revised MARPOL Annex II
Certificate valid until after 1 January 2007	Issue a certificate under the revised MARPOL Annex II starting as from 1 January 2007 with an identical expiry date as the existing certificate	
Renewal survey on or after 1 August 2006	Extend the validity of the existing certificate to 1 January 2007	Issue a new certificate under the revised MARPOL Annex II with an expiry date of 5 years after the survey date
Change of Flag on or after 1 August 2006	Replace the coversheet of the current certificate with an extension of the validity to 1 January 2007	Issue a new certificate under the revised MARPOL Annex II with an expiry date of 5 years after the renewal survey date
Delivery of a new building (e.g. 1 August 2006)	Issue a short term certificate under the current MARPOL Annex II valid until 1 January 2007	Issue a full term certificate valid for 5 years after the initial survey

Development of guidelines on the completion of BLG Product Data Reporting Form

3.34 The Sub-Committee noted that BLG 7 had considered the guidelines for the completion of the BLG Product Data Reporting Form but that work on the Form had only been completed at ESPH 10. The Sub-Committee approved the updated guidelines, as shown in annex 5.

3.35 The Sub-Committee agreed that the guidelines should form part of the revised MEPC/Circ.265 and should appear as an additional appendix in this circular relating to the BLG Data Product Reporting Form.

3.36 The Sub-Committee also agreed that the explanation for product name in the BLG Data Reporting Form should be amended to reflect what currently exists in chapter 17 of the revised IBC Code, as follows:

“1: Product Identity
Product Name

The product name shall be used in the shipping document for any cargo offered for bulk shipments. Any additional name may be included in brackets after the product name.”

3.37 The Sub-Committee also agreed that the GESAMP/EHS Product Data Reporting Form should be incorporated in the revised MEPC/Circ.265, together with reference to the GESAMP Reports and Studies No.64 which provides advice to manufacturers and administrations on submitting data to the GESAMP/EHS Working Group and the rationale of the hazard evaluation procedure.

3.38 The Sub-Committee further agreed to instruct the Secretariat to place the two reporting forms and the GESAMP Reports and Studies No.64 on the IMO public domain website as one package to facilitate accessibility by the end-user.

Consideration of the status of outstanding guidelines from MEPC 51 referenced in the 2002 consolidated edition of Annex II to MARPOL 73/78

Guidelines for the provisional assessment of liquids transported in bulk

3.39 The Sub-Committee noted that in the time available, the Group was not able to complete its work but had a preliminary exchange of views on the outstanding work that needed to be done on the guidelines at the next intersessional (ESPH 11). It further noted that Norway and Germany agreed to provide proposed changes to appendix 2 whilst the Netherlands and the United States agreed to prepare a submission regarding appendix 3.

3.40 The Sub-Committee agreed to request MEPC 53 to allow ESPH 11 to submit the revised MEPC/Circ.265 directly to MEPC 54 for approval and circulation at the earliest opportunity.

Guidelines for the transport and handling of limited amounts of hazardous and noxious liquid substances in bulk on offshore support vessels (resolution A.673(16))

3.41 The Sub-Committee noted that it had agreed on the consequential amendments to the Guidelines for the transport and handling of limited amounts of hazardous and noxious liquid substances in bulk on offshore support vessels (resolution A.673(16)), but recognized that the Guidelines, in particular appendix 1, still required further consideration, and therefore further work was required on the Guidelines.

3.42 The Sub-Committee recalled that FP 49 had reviewed paragraph 3.9 of the fire protection provisions of the Guidelines (FP 49/17).

3.43 The Sub-Committee noted that an anomaly exists between the title of the resolution, which refers to “substance in bulk”, and some parts of the text which refer to the dangerous goods and marine pollutants in packaged form as well as to the recommendations of the IMDG Code.

3.44 The Sub-Committee further noted the comments during plenary that a number of IMO instruments (resolutions A.673(16), A.469(XII) and A.863(20)) deal with various aspects of offshore support/supply vessels and that at an opportune time it may be wise to consolidate the different provisions in a single IMO instrument.

3.45 With regard to appendix 1, the Sub-Committee agreed:

- .1 that the names of the products in appendix 1 should be consistent with the name that appear in chapter 17 of the revised IBC Code;
- .2 to delete the column concerning pollution category but to retain the one for flammability;
- .3 to retain the entry for “hydrochloric-hydrofluoric mixtures containing 3% or less hydrofluoric acid”, even though it does not exist in the revised IBC Code; and
- .4 to replace “zinc bromide brine” with “drilling brine containing zinc salts” and to include “drilling brines including: calcium bromide solution, calcium chloride solution and sodium chloride solution”.

3.46 The Sub-Committee also agreed to some additional changes to the text of the Guidelines and that the model form of the certificate needs to be brought in line with the format of that which appears in the IBC Code.

3.47 The changes agreed by the Sub-Committee are shown at annex 6 (refer also to paragraphs 3.8.16 and 10.5).

3.48 The Sub-Committee noted the position by the United States that the criteria for the carriage subject to the guidelines are not properly considered in light of the revision of resolution A.469(XII).

3.49 The Sub-Committee agreed to inform SLF, as co-ordinating Sub-Committee, on the relevant amendments BLG made to the guidelines.

Procedures for Port State Control adopted by the Organization by resolution A.787(19) and amended by resolution A.882(21)

3.50 Due to time constraints, the Sub-Committee was informed that the group was not able to discuss the Procedures for Port State Control adopted by the Organization by resolution A.787(19) and amended by resolution A.882(21) and the group therefore decided to defer this to its next intersessional meeting.

Regulation 5.3 of the revised MARPOL Annex II for gas carriers

3.51 The Sub-Committee noted the discussions in plenary earlier in the week following the submission by IACS (BLG 9/3/1) on the clarification of the requirements of the revised MARPOL Annex II for gas carriers.

3.52 The Sub-Committee noted that regulation 5.3 of the revised MARPOL Annex II contains an equivalent arrangement for gas carriers to meet equal standards for the protection of the marine environment when certified to carry Noxious Liquid Substances (NLS), taking into account the special design and equipment of these ships and that special attention had been given to paragraph 3.5 of the said regulation in which it is stated that through the Manual, approved by the Administration, it is ensured that “no cargo residues will remain in the tanks after applying the ventilation procedures prescribed in the Manual”. As a consequence, the Sub-Committee further noted that neither stripping tests nor stripping procedures are required for gas carriers.

3.53 Since there was no reference to regulation 12.6 of Annex II in the equivalent arrangement in regulation 5.3, the Sub-Committee also noted that 12.6 is not applicable to gas carriers certified to carry NLS.

Intersessional meeting of the ESPH Working Group

3.54 The Sub-Committee approved the work programme for the intersessional meeting of the ESPH Working Group in October 2005 as set out in BLG 9/WP.1.

3.55 In considering the proposed work programme, the Sub-Committee recognized that there was still considerable work to be done in preparation for the implementation of the revised MARPOL Annex II and the consequential amendments to the IBC Code and invited MEPC and MSC to request Council to allow an intersessional meeting of the ESPH Working Group in 2006.

4 REQUIREMENTS FOR PERSONNEL PROTECTION INVOLVED IN THE TRANSPORT OF CARGOES CONTAINING TOXIC SUBSTANCES IN ALL TYPES OF TANKERS

Background

4.1 The Sub-Committee recalled that BLG 8, having considered the draft Guidelines on the basic elements of a shipboard occupational health and safety programme (BLG 8/WP.4), had agreed that the draft Guidelines addressed a wide range of issues that were outside the scope of the Sub-Committee and instructed the Secretariat to forward document BLG 8/WP.4 to the COMSAR, DE, FP, FSI, SLF and STW Sub-Committees for consideration so that they could comment or make proposals, as appropriate.

4.2 The Sub-Committee noted that MSC 79 had agreed that the draft Guidelines on the basic elements of a shipboard occupational health and safety programme (BLG 8/WP.4) should be considered by the Joint MSC/MEPC Working Group on Human Element at its next session to be held at MEPC 53.

4.3 The Sub-Committee further noted that BLG 8, having finalized the draft Revised minimum safety standards for ships carrying liquids in bulk containing benzene, which was approved by MSC 77 as MSC/Circ.1095, agreed to further consider the structural recommendations, as set out annex 2 to document BLG 8/9, at this session.

Structural recommendations for new ships carrying mixtures of benzene

4.4 The Sub-Committee considered the proposal by Denmark (BLG 9/4/1) containing structural recommendations for new ships carrying liquids in bulk containing benzene and, having recognized the adverse health effects from exposure to benzene vapours, agreed to develop non-mandatory guidelines as a first step with a view to gaining experience with the guidelines before considering mandatory requirements.

4.5 In the course of discussion, the Sub-Committee noted the views of several delegations that benzene exposure was not limited to ships covered under the IBC Code and that the application of any future guidelines should also cover ships carrying MARPOL Annex I cargoes as well. The Sub-Committee agreed that the DE Sub-Committee should take part in this work since structural matters also fall under their purview and instructed the Secretariat to inform the DE Sub-Committee accordingly.

4.6 In order to progress the work on this issue, the Sub-Committee agreed to establish a correspondence group, under the co-ordination of Denmark*, with the following terms of reference:

- .1 to further consider the draft MSC circular on Structural recommendations for new ships carrying liquids in bulk containing benzene, as set out in the annex to document BLG 9/4/1, taking into account the views expressed by the Sub-Committee; and
- .2 to submit a report to BLG 10.

Marine Safety Data Sheets (MSDS) for MARPOL Annex I cargoes or marine fuel oils

4.7 The Sub-Committee considered the submission by OCIMF and IPIECA (BLG 9/4/2) and noted that they, together with industry partners, are in the process of developing a revised version of annex 2 to the Guidelines for the completion of MSDS for the MARPOL Annex I type cargoes and marine fuel oils, as set out in resolution MSC.150(77). The OCIMF observer also informed the Sub-Committee that a detailed proposal would be submitted to MEPC 53 for consideration.

4.8 In considering the recommendation of STW 35 (BLG 9/4) that mandatory requirements should be developed for the carriage and use of safety data sheets, the Sub-Committee agreed to develop mandatory requirements for the use of safety data sheets for ships carrying MARPOL Annex I type cargoes and marine fuel oils. Notwithstanding the above decision, the Sub-Committee agreed that it would not prepare the above mandatory requirements until after it had considered the forthcoming submission by OCIMF and IPIECA on proposed revisions to the Guidelines for the completion of MSDS for the MARPOL Annex I type cargoes and marine fuel oils, as set out in resolution MSC.150(77) (see paragraph 4.7 above).

Development of management-based guidelines on shipboard occupational health

4.9 The Sub-Committee considered document BLG 9/4, containing the outcomes of FP 48, STW 35, COMSAR 8, DE 47, FSI 12, SLF 47, DSC 9 and MSC 79 on matters related to the draft Guidelines on the basic elements for a shipboard occupational health and safety programme, and noted that FP 48, COMSAR 8, DE 47, SLF 47 and DSC 9 had agreed that no modifications to the draft Guidelines were necessary for the areas under their respective purview.

4.10 In considering the draft Guidelines set out in the annex to document BLG 8/WP.4, the Sub-Committee noted the views expressed by the ICFTU observer that the draft guidelines were non-specific and only provided for a “guidance programme”, which would fall under the provisions of the ISM Code, as highlighted by FSI 12. In this regard, the ICFTU observer expressed the view that a more substantial seafarer’s health and safety policy and standards should be developed with a view to identifying the existing criteria and practices prepared by this

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and other IMO bodies, as contained in the various resolutions, conventions, circulars and recommendations, with a view to collating the aforementioned criteria for structures and operations so that seafarer will have clear safety and health policy guidelines.

4.11 Having considered the above views and the comments of FP 48, STW 35 COMSAR 8, DE 47, FSI 12, SLF 47, DSC 9 and MSC 79, the Sub-Committee agreed to the draft Guidelines on the basic elements for a shipboard occupational health and safety programme and the associated draft MSC/MEPC circular, as set out in annex 7, for submission to Committees for approval, taking into account the views of the Joint MSC/MEPC Working Group on Human Element.

4.12 The Sub-Committee invited the Joint MSC/MEPC Working Group on the Human Element to consider the comments expressed by ICFTU on the need to collate the criteria for structures and operations and the views expressed by FSI 12 that the draft Guidelines should be linked with the ISM Code.

Extension of the target completion date

4.13 The Committees were invited to note the above decisions and extend the target completion date on this item to 2006.

5 REVISION OF THE FIRE PROTECTION REQUIREMENTS OF THE IBC, IGC, BCH AND GC CODES

Background

5.1 The Sub-Committee recalled that MSC 74, in considering document MSC 74/18/1 (Republic of Korea), had agreed to include, in its work programme, a high priority item on "Revision of the fire protection requirements of the IBC and IGC Codes", because a number of the identified requirements of the IBC and IGC Codes and the revised SOLAS chapter II-2 were not technically identical and, therefore, there would be a need to carefully check the references, in particular in terms of application of the relevant requirements to existing ships, with a view to harmonizing them with the corresponding requirements of the revised SOLAS chapter II-2.

5.2 The Sub-Committee also recalled that the Secretariat, in order to assist the Sub-Committee in carryout the above task, had volunteered to identify the references to SOLAS chapter II-2 contained in the IBC, IGC, BCH and GC Codes and prepared a list of cross references to the revised SOLAS chapter II-2, as set out in document BLG 8/11.

Revision of the fire protection requirements of the IBC, IGC, BCH and GC Codes

5.3 In considering documents BLG 9/5 (Japan) and BLG 9/5/1 (Republic of Korea), which propose amendments to the IBC, IGC, BCH and GC Codes, the Sub-Committee agreed that the proposed amendments needed careful examination by the working group, taking into account that the BCH and GC Codes only apply to existing ships.

Addition of Dimethyl Ether and Carbon Dioxide to the IGC and GC Codes

5.4 In considering document BLG 9/3/2 (Secretariat), containing a proposal by ESPH 9 to add dimethyl ether (DME) to the IGC Code, the Sub-Committee agreed that DME should also be included in the GC Code. In addition, the Sub-Committee agreed that carbon dioxide should be included in both the IGC and GC Codes.

Establishment of the working group

5.5 Recognizing the necessity to make progress on the above issues, the Sub-Committee established the Working Group on Revision of Fire Protection Requirements of the IBC, IGC, BCH and GC Codes, and instructed it, taking into account the comments and decisions made in plenary, to:

- .1 finalize the revision of the fire protection requirements of the IBC, IGC, BCH and GC Codes, taking into account documents BLG 9/5 and BLG 9/5/1;
- .2 finalize the amendments related to the addition of Dimethyl Ether and Carbon Dioxide to chapter 19 of the IGC Code and chapter XIX of the GC Code; and
- .3 consider the procedure for adopting amendments to the revised IBC Code.

Report of the working group

5.6 Having received the report of the working group (BLG 9/WP.3), the Sub-Committee approved it in general and took action as outlined hereunder.

Fixed local application fire-fighting systems

5.7 The Sub-Committee considered the application of SOLAS regulation II-2/10.5.6, containing requirements for the installation of fixed local application fire-fighting systems for cargo ships of 2,000 gross tonnage and above constructed on or after 1 July 2002, and agreed that the above requirements should apply to chemical tankers and gas carriers of 2,000 tons gross tonnage and above constructed on or after 1 July 2002, recognizing that there should be no difference in the safety requirements for engine-rooms in tankers, chemical tankers and gas carriers.

Protection of cargo pump-rooms

5.8 The Sub-Committee considered the application of SOLAS regulation II-2/4.5.10, containing requirements for protection of cargo pump-rooms, and agreed that the aforementioned regulation should only apply to chemical tankers of 500 gross tonnage and above. In this regard, the Sub-Committee also agreed to replace the words "hydrocarbon gases" by "flammable vapours" in applying the above regulation.

5.9 The Sub-Committee further considered the phase-in procedure for existing ships in applying SOLAS regulations II-2/4.5.10.1 and II-2/4.5.10.4 and a system for continuous monitoring of the concentration of flammable vapours, which is prescribed in SOLAS regulation II-2/1.6.7, and agreed that a phase-in procedure for existing chemical tankers was necessary, including exemption for ships not engaged in international voyage.

Emergency escape breathing devices (EEBDs)

5.10 The Sub-Committee considered the application of SOLAS regulations II-2/13.3.4.2 to 13.3.4.5 and II-2/13.4.3, containing requirements for emergency escape breathing devices (EEBDs), for chemical tankers and gas carriers and noted that these requirements also apply to existing cargo ships in accordance with SOLAS regulation II-2/1.2.2. The Sub-Committee therefore agreed that these requirements should also apply to chemical tankers and gas carriers of 500 gross tonnage and above.

5.11 In considering document BLG 9/5/1, proposing exemption of EEBDs in accommodation spaces, the Sub-Committee agreed that no such exemption should be permitted, recognizing the difference in use and size of EEBDs and the respiratory and eye protection equipment required by the IBC Code.

References to SOLAS chapter II-2 in the Codes

5.12 The Sub-Committee considered the references to SOLAS chapter II-2 in the IGC, BCH and GC Codes (BLG 8/11), taking into account that the IBC Code has already been amended by resolution MSC.176(79), and agreed that all the references in the IGC Code should be revised. However, the Sub-Committee agreed that the references to SOLAS regulations in the BCH and GC Codes should generally remain unchanged, taking into account that both Codes only apply to existing ships. Notwithstanding the above decision, the Sub-Committee agreed that the references to existing ships in SOLAS chapter II-2, as amended by resolution MSC.99(73), should apply to existing chemical tankers and gas carriers retroactively and, therefore, agreed to add such references to the Codes, as appropriate.

Addition of Dimethyl Ether and Carbon Dioxide to the IGC and GC Codes

5.13 The Sub-Committee considered the proposed addition of Dimethyl Ether and Carbon Dioxide to the IGC and GC Codes, based on documents BLG 9/3/2 and BLG 8/18, annex 10, and agreed to add Dimethyl Ether and Carbon Dioxide to chapter 19 of the IGC Code and chapter XIX of the GC Code. In considering this matter, the Sub-Committee agreed to delete the UN number (column b) and MFAG table number (column h) from chapter 19 of the IGC Code and deletion of the UN number (column b) from chapter XIX of the GC Code, taking into account the blank columns themselves would remain in the table for format purposes.

5.14 The Sub-Committee also considered the table of “interpretation or application” for ships carrying Carbon Dioxide in applying the IGC Code, as set out in annex 10 to document BLG 8/18, and agreed to the draft MSC circular on Interpretation or application of the IGC Code for ships carrying liquefied carbon dioxide in bulk, as set out in annex 8, for submission to MSC 81, for approval and subsequent adoption at MSC 82.

Draft amendments to the Codes

5.15 Having taken the above decisions, the Sub-Committee agreed to the draft amendments to the IBC, IGC, BCH and GC Codes, as set out in annexes 3 and 9 to 11, respectively, for submission of the draft amendments to:

- .1 the IGC and GC Codes, to MSC 81 for approval with a view to subsequent adoption;
- .2 the BCH Code, to MEPC 53 for approval for circulation with a view to adoption by MEPC 54 (refer also to paragraph 3.8.17); and
- .3 the IBC Code, to MEPC 53 and MSC 81, as outlined in paragraph 5.16.

Procedure for adopting amendments to the revised IBC Code

5.16 The Sub-Committee discussed the procedure for adopting amendments to the revised IBC Code, taking into account that the revised Code adopted at MEPC 52 and MSC 79 will not

enter into force until 1 January 2007, and noted that the proposed amendments would normally be adopted by the MSC and MEPC after the revised IBC Code had entered into force. Therefore, the Sub-Committee recommended that the proposed amendments be forwarded to MEPC 53 and MSC 81 for approval in principle with a view to adoption at MSC 83 and MEPC 56.

5.17 Having considered the above procedures for approval and adoption, the Sub-Committee also recommended that the Committees invite Contracting Governments to the 1974 SOLAS Convention and Parties to the MARPOL 73/78 to apply the proposed amendments to the revised IBC Code to ships flying their flags, pending their formal entry into force date. To this end, the Sub-Committee agreed to a draft MSC/MEPC circular, as set out in annex 12, for submission to MSC 81 and MEPC 53 for approval, to be circulated immediately after the deemed acceptance of the revised IBC Code.

6 CONSIDERATION OF IACS UNIFIED INTERPRETATIONS

6.1 The Sub-Committee recalled that MSC 78, in order to expedite the consideration of the IACS unified interpretations being submitted to the Committee on a continuous basis, decided that, from then on, IACS should submit them directly and as appropriate to the sub-committees concerned. To this effect, the Committee agreed to retain, on a continuous basis, the item on "Consideration of IACS unified interpretations" in the work programmes of the BLG, DE, FP, FSI, NAV and SLF Sub-Committees, rather than assigning it a target completion date, and to include it in the agenda for their next respective sessions.

6.2 The Sub-Committee also recalled that at BLG 8, in reviewing IACS interpretation MPC9 entitled "Interpretation of Width of Wing Tanks and Height of Double Bottom Tanks at the Turn of the Bilge Area" on MARPOL Annex I, regulation 13F(3)(c), as contained in annex 3 to document MSC 76/18/2, it had agreed to take no action on this matter until the IACS interpretation MPC9 had been considered by MEPC 49. The Sub-Committee noted that MEPC 49 had endorsed IACS Interpretation MPC9 (MEPC 49/22, paragraph 11.2.2).

6.3 The Sub-Committee, noting that no document had been submitted under this agenda item to the session, decided that no action was required on the matter.

7 AMENDMENTS TO RESOLUTION MEPC.2(VI)

7.1 The Sub-Committee recalled that MEPC 49 had agreed to review the Recommendation on international effluent standards and guidelines for performance tests for sewage treatment plants, adopted by resolution MEPC.2(VI) in 1976, and had invited delegations to submit documents on the matter to MEPC 51.

7.2 The Sub-Committee also recalled that MEPC 51 had considered a submission by Australia (MEPC 51/17/2) providing information on the practical problems encountered with performance tests on sewage treatment plants in accordance with resolution MEPC.2(VI) as well as a comparison with other available sewage treatment standards, and proposing that this resolution should be amended in order that:

- .1 current trends for the protection of the marine environment and developments in the design and effectiveness of commercially available sewage treatment plants be reflected; and
- .2 the proliferation of differing unilateral more stringent standards that might be imposed worldwide be avoided.

7.3 The Sub-Committee further recalled that MEPC 51 had decided to refer the matter to the Sub-Committee for consideration as a high-priority item in its work programme with a target completion date of 2006, and had invited Member Governments and interested organizations to submit proposals to BLG 9.

7.4 In considering document BLG 9/7 (Australia), containing comments and information on a number of identified issues which would require detailed examination in reviewing resolution MEPC.2(VI), the Sub-Committee agreed that the document provided a good basis for the further work that is needed for the comprehensive review of this resolution. The Sub-Committee further agreed that this review should not only aim to identify and correct problems related to the implementation of resolution MEPC.2(VI) but that at the same time it should take into account and reflect in the final outcome the current technological progress and development in the field of onboard sewage treatment.

7.5 Following a proposal by Brazil, the Sub-Committee also agreed that the review of resolution MEPC.2(VI) should take into account, as necessary, any relevant standards or guidelines developed by the World Health Organization.

Establishment of a correspondence group

7.6 The Sub-Committee, in order to progress the work in the intersessional period, agreed to establish a correspondence group, under the co-ordination of Australia*, to prepare a draft text of the proposed amendments to resolution MEPC.2(VI), using document BLG 9/7 as a basis, and report back to BLG 10.

7.7 In this respect, the Sub-Committee invited participation in the correspondence group particularly from those Member States with technical expertise in the approval and manufacturing of shipboard sewage treatment systems, as well as from non-governmental organizations having a particular interest and experience in the design and effectiveness of commercially available sewage treatment plants.

8 DEVELOPMENT OF STANDARDS REGARDING RATE OF DISCHARGE FOR SEWAGE

8.1 The Sub-Committee recalled that MEPC 49 had agreed with the proposal by Singapore (MEPC 49/13/2) regarding the urgent need to develop standards for the establishment of the rate of sewage discharge that is stored in holding tanks on board ships as required by regulation 11.1.1 of the revised MARPOL Annex IV, and had invited delegations to submit proposals to MEPC 51 for consideration.

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8.2 The Sub-Committee noted that MEPC 51, recognizing that this issue needed careful consideration from the viewpoint of sewage generated by humans as well as effluent produced by livestock on board ships as suggested by Australia (MEPC 51/17/5), had decided to refer the matter to the Sub-Committee for the development of relevant standards under regulation 11.1.1 of the revised MARPOL Annex IV as a high-priority item in its work programme with a target completion date of 2006.

8.3 Prior to embarking on the development of the standards for the rate of sewage discharge, the Sub-Committee considered a proposal by Australia (BLG 9/8) for a Unified Interpretation of regulation 11.1.1 of the revised Annex IV of MARPOL 73/78 with respect to discharges of sewage not held in holding tanks.

8.4 In its proposal, Australia suggested that regulation 11.1.1 of the revised MARPOL Annex IV allows the direct overboard discharge of sewage that has not been stored in holding tanks at a distance of more than 12 nautical miles from nearest land without the ship having to observe any of the other discharge requirements referred to in this regulation (minimum speed, being *en route* and moderate discharge rate). It was also suggested that this interpretation does not negate the requirements for the ship to be equipped with sewage systems in accordance with regulation 9 of the revised MARPOL Annex IV.

8.5 In commenting on document BLG 9/8, the delegation of the United Kingdom, supported by a number of delegations, while recognizing the practicable problems associated with the large volumes of sewage generated onboard livestock carriers, expressed its concern on the possible adverse environmental impact that the application of the proposed unified interpretation might have in the case of unrestricted discharge of large volumes of sewage from such ships, in particular, if such discharge takes place in environmentally sensitive areas, shallow waters or with high discharge rates.

8.6 It was further suggested that, taking into account the large volume of animal effluent accumulated in the ship's bilge wells or in open drainage areas, consideration should be given to applying to such effluent similar discharge requirements as for sewage that had been stored in holding tanks (e.g. minimum speed, being *en route* and moderate discharge rate).

8.7 Other delegations, in expressing their support for the proposal by Australia, were of the view that taking into account the relevant provisions of MARPOL Annex IV there should be no additional restrictions to the discharge, at a distance of more than 12 nautical miles from the nearest land, of sewage not stored in holding tanks.

8.8 The Sub-Committee, having recognized that:

- .1 the effluent generated by animals on board livestock carriers needs to be disposed of in a practical, effective and environmentally friendly manner; and
- .2 there is currently no realistic cost-effective alternative to overboard discharge in the open sea,

agreed to task the correspondence group, established under agenda item 7, to consider further the issue of the discharge at a distance of more than 12 nautical miles from the nearest land of untreated animal effluent from livestock carriers, not stored in holding tanks, with the aim of developing an appropriate recommendation for consideration at the next session of the Sub-Committee.

8.9 The correspondence group was also tasked to develop draft standards for the establishment of the rate of discharge for sewage that has been stored in holding tanks on board ships, as required by regulation 11.1.1 of the revised MARPOL Annex IV and report back to BLG 10.

9 DEVELOPMENT OF PROVISIONS FOR GAS-FUELLED SHIPS

9.1 The Sub-Committee recalled that MSC 78, in considering document MSC 78/24/8 (Norway), had instructed the BLG, DE (co-ordinator) and FP Sub-Committees to develop appropriate draft Guidelines for gas-fuelled ships, with a view to establishing an international standard for the installation and operation of internal combustion engine installations using gas as fuel in all types of ships other than LNG carriers and included a high priority item on "Development of provisions for gas-fuelled ships" in the Sub-Committee's work programme and provisional agenda for BLG 9 with a target completion date of 2007.

9.2 The Sub-Committee noted that DE 48 had considered submissions by Norway (DE 48/19), containing a proposal for draft provisions regarding gas-fuelled engine installations in ships, and the United States (DE 48/19/1), providing comments on the development of provisions for gas-fuelled ships and proposing to expand their scope to also cover other potential gas fuels such as hydrogen and propane, and had:

- .1 agreed, in principle, that the provisions to be developed should not only consider natural gas, but also other potential gas fuels such as hydrogen and propane, but that this should be further considered at a later stage; and
- .2 noted that an IACS working group was currently in the process of developing requirements for gas-fuelled ships and that they would keep the DE Sub-Committee informed of developments.

9.3 The Sub-Committee considered documents MSC 78/24/8 and DE 48/19 (Norway) and, having recognized that gas as fuel is becoming increasingly more interesting as an alternative to conventional fuels since it produces low emissions, such as those of SO_x, NO_x and other particular matter, agreed that it should take an active role on the development of the draft provisions for gas-fuelled ships given the environmental benefits for using gas as fuel.

9.4 The delegation of Australia pointed out that the hazards for gas-fuelled ships are highly variable, bearing in mind that refuelling can be dangerous, and expressed the view that a risk assessment should be undertaken to consider the hazards associated with a given ship type and its intended service.

9.5 In order to progress the work on this issue, the Sub-Committee agreed to establish a correspondence group, under the co-ordination of Norway*, with the following terms of reference:

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- .1 to prepare the appropriate provisions of the draft guidelines for gas fuelled ships for matters under the Sub-Committee's purview, taking into account document DE 48/19 and the comments on the hazards associated with gas fuelled engine installations in ships; and
- .2 to submit a report to BLG 10.

9.6 The Sub-Committee encouraged Members and international organizations to submit, to BLG 10, any information on experience with the approval, certification and inspection of gas-fuelled engine installations on board ships.

9.7 The Secretariat was instructed to inform DE Sub-Committee (co-ordinator) and other relevant sub-committees of the above decisions.

10 REVIEW OF THE OSV GUIDELINES

10.1 The Sub-Committee recalled that MSC 75 had instructed the COMSAR, DE, NAV and SLF Sub-Committees to review the Guidelines for the design and construction of offshore supply vessels (OSV), as contained in resolution A.469(XII), with a view to identifying the parts of the OSV Guidelines which need updating so that they are in line with the latest provisions of SOLAS and other IMO instruments, taking into account the Guidelines for the transport and handling of limited amounts of hazardous and noxious liquid substances in bulk on offshore support vessels (resolution A.673(16)) (LHNS Guidelines).

10.2 The Sub-Committee noted that MSC 78 had agreed to involve the BLG Sub-Committee in the review of the OSV Guidelines, given that the Guidelines for the transport and handling of limited amounts of hazardous and noxious liquid substances in bulk on offshore support vessels (resolution A.673(16)), themselves part of the revision of the OSV Guidelines, address matters under the purview of the BLG Sub-Committee.

10.3 The Sub-Committee recalled that, under agenda item 3 (Evaluation of safety and pollution hazards of chemicals and preparation of consequential amendments), it had instructed the ESPH Working Group to review the Guidelines for the transport and handling of limited amounts of hazardous and noxious liquid substances in bulk on offshore support vessels (resolution A.673(16)) since this work addresses matters under its purview and agreed to discuss amendments to the OSV Guidelines under this agenda item (see also paragraphs 3.8.16, 3.45 to 3.47 and annex 7).

10.4 In considering the OSV Guidelines with regard to matters related to the transport of hazardous and liquid noxious substances on offshore supply vessels, the Sub-Committee agreed that the following new section 8 should be added after the existing section 7 of the Guidelines:

“8 TRANSPORT OF HAZARDOUS AND LIQUID NOXIOUS SUBSTANCES IN BULK

The vessel involved in the transport of limited quantities of hazardous and liquid noxious substances in bulk should comply with the revised Guidelines for the transport and handling of limited amounts of hazardous and noxious liquid substances in bulk on offshore support vessels (resolution MSC....(.....))”,

and instructed the Secretariat to inform the SLF Sub-Committee (co-ordinator) accordingly.

Draft modification to the LHNS Guidelines (resolution A.673(16))

10.5 In considering the part of the report of the ESPH Working Group (BLG 9/WP.1) referring to the review of the LHNS Guidelines (resolution A.673(16)), the Sub-Committee agreed to the draft modifications to the Guidelines for the transport and handling of limited amounts of hazardous and noxious liquid substances in bulk on offshore support vessels, as set out in annex 6, for referral to SLF 48 for co-ordination purposes.

10.6 The Sub-Committee instructed the Secretariat to also inform DSC 10 of the above decisions since resolution A.673(16) covers matters under their purview.

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

11.1 The Sub-Committee recalled that the International Conference on Ballast Water Management for Ships held from 9 to 13 February 2004 had adopted the International Convention for the Control and Management of Ships' Ballast Water and Sediments, 2004 (BWM Convention) as well as three resolutions outlining the tasks ahead for the MEPC and one resolution inviting the involvement of the Technical Co-operation Committee for capacity building activities on this issue.

11.2 The Sub-Committee noted that the BWM Convention had been open for signature by Member States from 1 June 2004 to 31 May 2005 and that four countries (Argentina, Brazil, Spain and Syrian Arab Republic) had already signed the Convention, subject to ratification, while a number of others have expressed their intention to ratify the instrument in the near future.

11.3 The Sub-Committee urged the Member States to sign the Convention at their earliest convenience to facilitate its early entry-into-force.

11.4 The Sub-Committee recalled that MEPC 51 had approved the Programme for development of the guidelines for uniform implementation of the BWM Convention and had urged Members to provide their intersessional contributions to the designated co-ordinators, according to the working arrangements agreed to at MEPC 51 (MEPC 51/22, paragraph 2.11.4).

11.5 The Sub-Committee noted that MEPC 52 had decided to further consider guidelines (G8) and (G9) at MEPC 53 with a view to their adoption by MEPC resolutions and agreed to add a separate item on the agenda of BLG 9 for development, as a matter of priority, of the remaining guidelines for uniform implementation of the BWM Convention.

11.6 The Sub-Committee also noted that MEPC 52 invited Members and international organizations to provide their contributions for the development of the remaining guidelines to the intersessional co-ordinators for submission to BLG 9 and requested the Sub-Committee to report to MEPC 53 on the progress made.

11.7 The Sub-Committee noted that documents submitted under this agenda item will be considered in detail by the Ballast Water Working Group.

11.8 In providing general comments regarding the documents submitted under this agenda item, the delegation of Japan emphasized the need for practicability and scientific reliability and stressed the fact that the guidelines should be compliant with the provisions of the Convention.

11.9 The Sub-Committee emphasized the paramount importance of safety aspects and requested that due consideration should be given to all safety matters throughout the ballast water guidelines under development.

11.10 The observer from CESA drew the attention of the Sub-Committee to some duplications and inconsistencies in guidelines (G11) and (G12) and expressed the view that some of the provisions are over-regulating common practice related to shipbuilding.

11.11 The Sub-Committee noted that no submissions of the revised draft guidelines (G10) and (G7) were made for this session, and agreed that the comments provided by Singapore and Brazil on these particular guidelines (documents BLG 9/11/12 and BLG 9/11/9 respectively) should be referred to a future session of the MEPC or the Sub-Committee.

11.12 The Sub-Committee agreed to instruct the working group to concentrate at this session on guidelines (G4) and (G6) as some administrations have already implemented requirements related to ballast water exchange and shipboard ballast water management plans.

11.13 The Sub-Committee established the Ballast Water Working Group under the chairmanship of Mr. Mike Hunter (United Kingdom) and instructed the group, taking into account the comments made by delegations at plenary, to:

- .1 review the draft Guidelines for ballast water management and the development of ballast water management plans (G4) based on the text provided in documents BLG 9/11 (Secretariat) and BLG 9/11/7 (United Kingdom, ICS, INTERTANKO) and the comments provided in documents BLG 9/11/9 (Brazil) and BLG 9/11/10/Rev.1 (Australia) and make recommendations as appropriate;
- .2 review the draft Guidelines for Ballast Water Exchange (G6) based on the text provided in document BLG 9/11/6 (United Kingdom) and make recommendations as appropriate;
- .3 further develop, to the extent possible in the time available, draft guidelines (G1), (G2), (G3), (G5), (G11) and (G12) based on the text provided in documents BLG 9/11/3 (annex 1) by the United Kingdom, BLG 9/11/2 by Germany, BLG 9/11/1 by ISAF, BLG 9/11/3 (annex 2), BLG 9/11/5 and BLG 9/11/4 by the United Kingdom and comments contained in documents BLG 9/11/8 (Brazil), BLG 9/11/11 (Singapore), BLG 9/11/13 and BLG 9/11/14 (United States); and
- .4 submit a written report on the work carried out by the group, including recommendations to MEPC 53, on Friday, 8 April 2005.

Report of the Working Group

11.14 The Chairman of the Ballast Water Working Group introduced the report (BLG 9/WP.2) and stated that the group had finalized Guidelines (G3), (G4) and (G6), which could be presented to MEPC 53 for consideration and adoption. The group had also finalized Guidelines G1, G5 and G12.

11.15 The Chairman stated that the Group, after having completed the work as contained in its report, continued working informally on the Guidelines for Ballast Water Sampling (G2). In this respect, the group agreed on the following:

- .1 Guidelines (G2) should only deal with sampling for compliance monitoring and should include sampling protocols to assess compliance with both the D-1 and D-2 standards;
- .2 in view of the fact that article 9 of the BWM Convention provides that sampling shall be carried out in accordance with the Guidelines, Guidelines (G2) should be developed as a mandatory document with non-mandatory sections, as appropriate;
- .3 regulation D-2 of the BWM Convention should be interpreted to be an instantaneous standard rather than an average over the whole discharge. Some members of the group had reservations on this interpretation and wished to further consider implications of this issue. The group concluded that further development of Guidelines (G2) should be based on the interpretation that D-2 is an instantaneous standard, recognizing that the subject would be reviewed at a future meeting;
- .4 the issue of “clear grounds” should be dealt with under port State control provisions in resolution A.787(19) as amended by resolution A.882(21) and should not be considered within Guidelines (G2).

11.16 The Sub-Committee noted the intention of the delegation of Germany to submit a revised draft of Guidelines (G2) to MEPC 53, taking into account the views of the group.

11.17 The Chairman stated that the group had also worked informally on the Guidelines for Ballast Water Exchange Design and Construction Standards (G11) and had completed a paragraph by paragraph review to provide a basis for further development of the Guidelines.

11.18 The delegation of Norway expressed the view that due to the particular importance of ballast water exchange and in an effort to better protect the marine environment, section 1.2.1 of the Guidelines (G4) should be revisited at MEPC 53.

Action taken by the Sub-Committee

11.19 Having considered the report of the Ballast Water Working Group (BLG 9/WP.2) the Sub-Committee:

- .1 after making several amendments, agreed to forward the text of the draft Guidelines for ballast water management and the development of ballast water management plans (G4), as contained in annex 1 of document BLG 9/WP.2 to the fourth intersessional meeting of the Ballast Water Working Group for further consideration with a view to presenting the final text for adoption at MEPC 53 by an MEPC resolution;
- .2 agreed to recommend to MEPC 53 to consider the adoption, by an MEPC resolution; of the draft Guidelines for Ballast Water Exchange (G6), as contained in annex 13;
- .3 agreed to recommend to MEPC 53 to consider the adoption, by an MEPC resolution, of the draft Guidelines for ballast water management equivalent compliance (G3), as contained in annex 14;

- .4 agreed to recommend to MEPC 53 to add an item on the work programme and agenda of the FSI Sub-Committee to consider the draft Guidelines for sediment reception facilities (G1) and the draft Guidelines for ballast water reception facilities (G5) as contained in annexes 4 and 5 of document BLG 9/WP.2, respectively, at its next session and to submit the final text of the guidelines to the MEPC with a view to their adoption at a future session of the MEPC;
- .5 agreed to recommend that MEPC 53 invite DE 49 to consider the draft Guidelines on design and construction to facilitate sediment control on ships (G12), as contained in annex 6 of document BLG 9/WP.2, and provide its comments to BLG 10 which should present the final draft of these Guidelines for adoption at MEPC 55 by an MEPC resolution;
- .6 noted the group's progress on development of the draft Guidelines for ballast water exchange design and construction standards (G11) and instructed the Secretariat to prepare an updated version of these guidelines for further consideration by the Ballast Water Working Group at its fourth intersessional meeting to be held from 11 to 15 July 2005; and
- .7 agreed to instruct the Secretariat to prepare a consolidated list of additional measures, established in accordance with Regulation C-1 of the BWM Convention based on the notifications from Member States, to be circulated as soon as practicable and to update the list as necessary.

12 CLARIFICATION OF THE DEFINITION OF FUEL OIL IN THE REVISED MARPOL ANNEX I

12.1 The Sub-Committee recalled that the issue on the clarification of the definition of fuel oil in the revised MARPOL Annex I had been discussed at MEPC 52 and that the Committee, having instructed BLG 9 to consider the item and to report back to MEPC 53, decided that any future proposed amendments to MARPOL Annex I would be referred to the revised Annex I which is expected to come into force on 1 January 2007 and that, in this particular case, the proposed amendment should be made to regulation 21 of the revised MARPOL Annex I.

12.2 The Sub-Committee noted that there were two submissions under the item: BLG 9/12 from the 25 Member States of the European Union and the European Commission and BLG 9/12/1 from INTERTANKO.

12.3 The Sub-Committee noted further that the two proposals provide different proposed amendments to regulation 21.2.2 of the revised MARPOL Annex I (regulation 13H(2)(b) of the existing Annex I), intending to fill the perceived gap in the definition of Heavy Grade Oil (HGO) that presently would allow for HGOs other than crude oil, fuel oil, or bitumen, tar and their emulsions, to be carried on board single hulled ships beyond 5 April 2005.

12.4 In the ensuing debate, the delegations who spoke supported the proposal contained in document BLG 9/12 as it specifically covered other types of HGO whose carriage should be banned by single hull oil tankers as compared with the unclear and more limited scope proposed in document BLG 9/12/1.

12.5 In response to a concern expressed during the discussions, it was clarified that the proposal in document BLG 9/12 was not meant to affect regulation 19.3 of the revised MARPOL Annex I which does not prohibit the carriage of allowed cargoes, other than oil, in spaces

intended as protection for double hull purposes. In this respect the Sub-Committee recalled that type 2/3 chemical/oil tankers are entitled to carry lube oil in centre tanks while carrying compatible type 3 cargoes in wing tanks.

12.6 With regard to the future entry into force of the proposed amendment, the Sub-Committee noted that MEPC 52 had decided that all future amendments should be referred to the revised MARPOL Annex I and that the date of entry into force of such amendments should be after 1 January 2007.

12.7 In this respect the Sub-Committee considered whether a Unified Interpretation to regulation 13H of the existing MARPOL Annex I could provide an interim solution during the period before the entry into force of the proposed amendments as it could be implemented immediately when approved by MEPC 53 in July 2005. The Sub-Committee agreed to develop such a Unified Interpretation to fill up the time gap until the date when the amendments could come into force which was expected to be in July 2007.

Establishment of the Drafting Group

12.8 Following debate, the Sub-Committee agreed to establish a drafting group and instructed it, using document BLG 9/12 as a basis and taking into account the comments made in plenary, to:

- .1 develop the text of a Unified Interpretation to regulation 13H(2) of the current MARPOL Annex I;
- .2 develop the text of amendments to regulation 21.2.2 of the revised MARPOL Annex I; and
- .3 submit a written report to the plenary by Thursday, 7 April.

12.9 Having received the report of the drafting group (BLG 9/WP.7), the Sub-Committee approved the report in general and took action as indicated in the following paragraphs.

12.10 The Sub-Committee agreed to the draft amendments to regulation 21.2.2 of the revised MARPOL Annex I, set out at annex 15, for submission to MEPC 53 for approval with a view to adoption; and recommends its earliest possible entry into force as soon as the revised MARPOL Annex I is in force.

12.11 The Sub-Committee also agreed to draft Unified Interpretation 4.14 to regulation 13H(2) of the current MARPOL Annex I, set out at annex 16, for submission to MEPC 53 for approval. Taking into account that regulation 13H of the current MARPOL Annex I and regulation 21 of the revised MARPOL Annex I contain the same text and that regulation 13H of the current MARPOL Annex I will be superseded by regulation 21 of the revised MARPOL Annex I, which is expected to enter into force on 1 January 2007, the Sub-Committee recommends that this Unified Interpretation should also be applicable to regulation 21.2 of the revised MARPOL Annex I to cover the period between 1 January 2007 and the entry into force date of the proposed amendment to regulation 21.2.

12.12 The Sub-Committee, however, unanimously agreed that this is an exceptional case where a unified interpretation is meant to anticipate the entry into force of an important amendment to MARPOL Annex I in order to cover a time gap before the amendment itself is in force and that this should, by no means, be considered as setting a precedent.

12.13 Since work on the item has been completed, the Sub-Committee agreed to invite the MEPC to delete the item from its work programme.

13 GUIDELINES FOR THE APPLICATION OF THE REVISED MARPOL ANNEX I REQUIREMENTS TO FPSOs AND FSUs

13.1 The Sub-Committee recalled that MEPC 49 had approved the Guidelines for the application of MARPOL Annex I requirements to FPSOs and FSUs (MEPC/Circ.406) and, recognizing that similar guidelines would be needed for the revised MARPOL Annex I, had requested the Secretariat to prepare a draft MEPC resolution for the Guidelines, which should be adapted to the new numbering system of the revised Annex I, for adoption at a future session of the MEPC (MEPC 49/22, paragraph 10.3.10.4).

13.2 The Sub-Committee noted that MEPC 52 was invited to decide, when considering the above-mentioned draft MEPC resolution, on the applicability to FPSOs and FSUs of following regulations in the revised Annex I that were not covered by MEPC/Circ.406:

- .1 regulation 21 on the carriage of heavy grade oil (currently regulation 13H);
- .2 regulation 22 on the protection of pump-rooms (new regulation); and
- .3 regulation 23 on new requirements relating to accidental oil outflow performance (new regulation).

13.3 The Sub-Committee noted further that MEPC 52, recognizing that more work needed to be done, had agreed to forward the matter to BLG 9 for consideration and requested it to finalize the guidelines for adoption at MEPC 53 (MEPC 52/24, paragraph 13.19).

13.4 The Sub-Committee had before it a submission by Australia (BLC 9/13) providing the view that regulations 21, 22 and 23 of the revised MARPOL Annex I should not apply to FPSOs and FSUs on the grounds that:

- .1 regulation 21 (Carriage of heavy grade oil) should not be applicable to FPSOs and FSUs as such vessels are *holding* rather than *carrying* oil;
- .2 similarly, in view of the reduced likelihood of bottom damage and the waiver of the double-bottom requirement for FPSOs and FSUs, it would be inappropriate to apply the requirements of regulation 22 (pump-room bottom protection) to these vessels; and
- .3 finally, in view of the aforementioned factors affecting the likelihood of collision or grounding, it would appear inappropriate to apply regulation 23 (accidental oil outflow performance) to FPSOs and FSUs.

13.5 In the debate that followed, a concern was expressed over the possible need to include a reference to voyages for positioning purposes, dry docking, etc., where MARPOL Annex I regulations for oil tankers should apply.

13.6 The Sub-Committee recalled that this concern was already addressed by paragraph 8 of the draft Guidelines (annex to MEPC 52/13/2) which provides that they are applicable to FPSOs and FSUs when located at their operating station only and that they should not transport oil

except with the specific agreement of the flag and coastal States on a voyage basis. When undertaking any voyage away from the operating station, FPSOs and FSUs will be required to comply with the discharge provisions of the revised MARPOL Annex I for oil tankers.

13.7 The Sub-Committee agreed that regulations 21, 22 and 23 of the revised MARPOL Annex I are “not applicable” to FPSOs and FSUs and instructed the Secretariat to insert that note in the appropriate boxes of annex 1 to the draft Guidelines.

13.8 The Sub-Committee agreed to the draft Guidelines for the application of the revised MARPOL Annex I requirements to Floating Production Storage and Offloading Facilities (FPSOs) and Floating Storage Units (FSUs) and associated draft MEPC resolution, set out at annex 17, for submission to MEPC 53 for adoption.

13.9 Since work on the item has been completed, the Sub-Committee agreed to invite the MEPC to delete the item from its work programme.

14 WORK PROGRAMME AND AGENDA FOR BLG 10

Terms of reference for the Sub-Committee

14.1 The Sub-Committee recalled that, in pursuance of instructions by MSC 76 to the Sub-Committees to draw up their proposed terms of reference, BLG 8, having considered its existing terms of reference and a proposal by the Chairman (BLG 8/WP.2), agreed that more time was necessary to finalize work on this issue.

14.2 The Sub-Committee further noted that the meeting of the Chairmen of the MSC, the MEPC and Sub-Committees, which was held on 15 May 2004, had discussed the proposed terms of reference of the sub-committees (except those of the DSC and BLG Sub-Committees) and agreed upon the following points that should be generic to all sub-committees:

- .1 uniformity of format and generic work items should be introduced, possibly using as a basis the terms of reference of the DE Sub-Committee;
- .2 the mandate to the sub-committees should include explicit references to marine environment issues;
- .3 the terms of reference should be aligned to the Strategic Plan and Goals for the Organization once they are finalized; and
- .4 the responsibilities of each sub-committee should be clearly defined in the terms of reference to assist the Secretariat in ensuring that submissions relating to new work items are assigned to the appropriate sub-committee.

14.3 In considering the draft terms of reference prepared by the Chairman (BLG 9/WP.6), the Sub-Committee, after a lengthy debate, agreed to the draft terms of reference, set out in annex 18, for submission to MSC 80 and MEPC 53 for consideration and action as appropriate.

14.4 In the course of the consideration of the draft terms of reference, the following points were made:

- .1 the current work programme of the BLG Sub-Committee is not extensive enough to cover a five-day meeting and excess capacity is available to take on more work from other sub-committees with heavier workloads;
- .2 currently, workload imbalances are addressed by *ad hoc* measures such as postponing a session for one year, and, as a result, this Sub-Committee has difficulty taking on high priority items;
- .3 the current terms of reference of the Sub-Committee covers a narrow remit related to the transport of the bulk liquids and gases and this should be expanded to cover items such as design and equipment issues related to marine pollution and air pollution, recalling that the Sub-Committee developed the draft text of MARPOL Annex VI;
- .4 the Committees should ensure a homogenous work load for the sub-committees so that no one body is overloaded while others have little to consider;
- .5 the name of this Sub-Committee should be modified to better reflect the work being undertaken, taking into account that the Sub-Committee is also dealing with issues that are clearly not related to the transport of bulk liquids and gases (i.e. matters related to sewage);
- .6 some consideration could be given to merging sub-committees where there is similar expertise; and
- .7 any adjustments made to the current sub-committee structure and work programmes should be done taking into account the need to ensure a cohesive breadth of subject matter with the related skill set.

14.5 The Sub-Committee, noting that the above views were not necessarily shared by the majority of the Sub-Committee, agreed that the Chairman should raise the above points, as appropriate, at the next Chairmen's meeting which was tentatively scheduled to take place on Saturday, 14 May 2005.

Work programme and agenda for BLG 10

14.6 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 agenda for its next session (BLG 9/WP.4) and prepared a proposed revised work programme and draft provisional agenda for BLG 10. While doing so, the Sub-Committee agreed to invite the MSC and MEPC to:

- .1 delete the following work programme items, as work on them has been completed:
 - .1.1 item H.4 - Revision of the fire protection requirements of the IBC, IGC, BCH and GC Codes;
 - .1.2 item H.8 - Review of the OSV Guidelines;
 - .1.3 item H.10 - Clarification of the definition of fuel oil in the revised MARPOL Annex I;

- .1.4 item H.11 - Guidelines for the application of the revised MARPOL Annex I requirements to FPSOs and FSUs;
- .2 extend the target completion date of the following work programme item:
 - .2.1 item H.2 - Requirements for protection of personnel involved in the transport of cargoes containing toxic substances in all types of tankers, to 2006; and
- .3 renumber the work programme items accordingly.

14.7 The MSC and MEPC were invited to approve the proposed revised work programme of the Sub-Committee and draft provisional agenda for BLG 10, as set out in annex 19.

Arrangements for the next session

14.8 The Sub-Committee agreed to establish, at BLG 10, working groups on the following:

- .1 evaluation of safety and pollution hazards of chemicals and preparations of consequential amendments;
- .2 development of the remaining guidelines for the uniform implementation of the 2004 BWM Convention; and
- .3 development of provisions for gas-fuelled ships;

and a drafting group on amendments to resolution MEPC.2(VI) and development of standards regarding rate of discharge for sewage.

Intersessional meetings

14.9 The Sub-Committee noted that MEPC 52 and MSC 79 approved the request to hold an intersessional meeting of the ESPH Working Group in 2005 which is tentatively scheduled to take place from 31 October to 4 November 2005.

14.10 In considering the proposed work programme for the next meeting, the Sub-Committee agreed that there was still considerable work to be done in preparation for the implementation of the revised MARPOL Annex II and the consequential amendments to the IBC Code and invited MEPC 53 and MSC 81 to approve the holding of an intersessional meeting of the ESPH Working Group in 2006 (see also paragraph 3.55).

Dates of the next session

14.11 The Sub-Committee noted that its tenth session had been tentatively scheduled to take place from 3 to 7 April 2006.

15 ELECTION OF CHAIRMAN AND VICE-CHAIRMAN FOR 2006

15.1 The Sub-Committee, in accordance with Rules of Procedure of the Maritime Safety Committee and Marine Environment Protection Committee, unanimously re-elected Mr. Z. Alam (Singapore) as Chairman and Mr. S. Oftedal (Norway) as Vice-Chairman, both for 2006.

16 ANY OTHER BUSINESS

16.1 The Sub-Committee, in considering document BLG 9/16 (Secretariat), noted that MSC 78 had instructed DSC 9 to revise and update the Recommendations on the safe transport of dangerous cargoes and related activities in port areas with a view to including therein appropriate security-related provisions and that DSC 9 had invited MSC 79 to refer the draft revised Recommendations on the safe transport of dangerous cargoes and related activities in port areas, set out in annex 7 to document DSC 9/15, to BLG 9 for consideration of those aspects which fall within the scope of the instruments under the purview of the BLG Sub-Committee, with a request to refrain, to the extent possible, from making changes to the text of the definitions which are already provided in the draft revised Recommendations.

16.2 The Sub-Committee considered the general provisions of the draft revised Recommendations, set out in annex 7 to document DSC 9/15, in particular section 9 thereof, and agreed that no modifications to the draft revised Recommendations were necessary. The Secretariat was instructed to inform the DSC Sub-Committee (co-ordinator) accordingly.

17 ACTION REQUESTED OF THE COMMITTEES

17.1 The Maritime Safety Committee is invited to:

- .1 note the Sub-Committee's course of action on requirements for the protection of personnel involved in the transport of cargoes containing toxic substances in all types of tankers (paragraphs 4.4 to 4.9 and 4.11 to 4.13 and annex 7);
- .2 approve the draft MSC/MEPC circular on Guidelines on the basic elements of a shipboard occupational health and safety programme (paragraph 4.11 and annex 7);
- .3 approve the draft MSC circular on Interpretation or application of the IGC Code for ships carrying liquefied carbon dioxide in bulk (paragraph 5.14 and annex 8);
- .4 approve the draft amendments to the IGC and GC Codes with a view to adoption by MSC 82 (paragraph 5.15.1 and annexes 9 and 10);
- .5 approve in principle, subject to MEPC's concurrent decision, the draft amendments to the BCH Code with a view to adoption by MEPC 54 and subsequent adoption by MSC 82 (paragraph 5.15.2 and annex 3);
- .6 approve, in principle, subject to MEPC's concurrent decision, the draft amendments to the IBC Code with a view to adoption by MSC 83 (paragraphs 5.15.3 and 5.16 and annex 11);
- .7 approve, subject to MEPC's concurrent decision, the draft MSC/MEPC circular on Early application of the amendments to the fire protection requirements of the revised IBC Code (paragraph 5.17 and annex 12);
- .8 note that the review of the relevant parts of the OSV (resolution A.469(XII)) and the LHNS Guidelines (resolution A.673(16)) has been completed and forwarded to the SLF Sub-Committee for co-ordination purposes (paragraphs 10.4 and 10.5 and annex 6);

- .9 consider the draft terms of reference for the Sub-Committee and take action as appropriate (paragraphs 14.3 to 14.5 and annex 18);
- .10 approve, subject to MEPC's concurrent decision, the draft revised work programme of the Sub-Committee and the draft provisional agenda for BLG 10 (paragraph 14.7 and annex 19);
- .11 approve, subject to MEPC's concurrent decision, the holding of an intersessional meeting of the ESPH Working Group in 2006 (paragraph 14.10); and
- .12 approve the report in general.

17.2 The Marine Environment Protection Committee is invited to:

- .1 endorse the Sub-Committee's decision to reject proposals for extensions for tripartite agreements beyond the stipulated 3-year period (paragraph 3.8.5);
- .2 endorse the Sub-Committee's decision on the withdrawal of the Guidelines for the Application of Amendments to the List of Substances in Annex II of MARPOL 73/78 and in the IBC Code and the BCH Code with Respect to Pollution Hazards (paragraph 3.8.13);
- .3 adopt the proposed amendments to resolution MEPC.85(44) (paragraph 3.8.14 and annex 1);
- .4 adopt the proposed amendments to resolution A.851(20) (paragraph 3.8.15 and annex 2);
- .5 approve the draft amendments to the BCH Code (paragraphs 3.8.17, 5.15.2 and annex 3) for circulation with a view to adoption by MEPC 54 and subsequent adoption by MSC 82;
- .6 invite all reporting States to communicate with the respective industry to re-evaluate the current entries in annexes 2, 3 and 4 of the MEPC.2/Circ. (paragraph 3.28);
- .7 endorse the approach taken by the Sub-Committee for the different scenarios related to List 1 of MEPC.2/Circ. (paragraph 3.30);
- .8 endorse the Sub-Committee's recommendation regarding the time frame for publication of the IBC Code, interim MEPC.2/Circ. and approval of products (paragraph 3.31);
- .9 endorse the Sub-Committee's statement for cargoes loaded before the entry into force date of the revised MARPOL Annex II (paragraph 3.32);
- .10 endorse the Sub-Committee's proposed approach to resolve the possible practical problems related to relevant certificates that may arise in connection with the implementation of the revised MARPOL Annex II (paragraph 3.33);

- .11 instruct the Secretariat to make available the BLG Product Data Reporting Form and GESAMP Reports and Studies No. 64 on the IMO public domain website as one package with the GESAMP/EHS Product Data Reporting Form (paragraph 3.38);
- .12 allow ESPH 11 to submit the revised MEPC/Circ.265 direct to MEPC 54 for approval and circulation at the earliest opportunity (paragraph 3.40);
- .13 approve the proposed amendments to resolution A.673(16) as a result of the revised MARPOL Annex II and the consequential amendments to the IBC Code and to inform SLF, as the co-ordinating Sub-Committee, on the amendments to this resolution (paragraphs 3.45, 3.46 and 3.49 and annex 6);
- .14 note the clarification on regulation 5.3 of the revised MARPOL Annex II for gas carriers (paragraphs 3.52 and 3.53);
- .15 approve, subject to MSC's concurrent decision, the draft MSC/MEPC circular on Guidelines on the basic elements of a shipboard occupational health and safety programme (paragraph 4.11 and annex 7);
- .16 approve, in principle, subject to MSC's concurrent decision, the draft amendments to the IBC Code with a view to adoption by MSC 83 and MEPC 56 (paragraphs 5.15 and 5.16 and annex 11);
- .17 approve, subject to MSC's concurrent decision, the draft MSC/MEPC circular on Early application of the amendments to the fire protection requirements of the revised IBC Code (paragraph 5.17 and annex 12);
- .18 endorse the Sub-Committee's course of action on matters related to the amendments to resolution MEPC.2 (VI) and take action as appropriate (paragraph 7.6);
- .19 endorse the Sub-Committee's course of action on the development of standards regarding the rate of discharge for sewage and take action as appropriate (paragraphs 8.8 and 8.9);
- .20 adopt the draft MEPC resolution on the Guidelines for Ballast Water Exchange (G6) (paragraph 11.19.2 and annex 13);
- .21 adopt the draft MEPC resolution on the Guidelines for ballast water management equivalent compliance (G3) (paragraph 11.9.3 and annex 14);
- .22 endorse the Sub-Committee's recommendation to add an item on the work programme and agenda of FSI 14 to develop the draft Guidelines for sediment reception facilities (G1) and the draft Guidelines for ballast water reception facilities (G5) and to report to the MEPC with a view to adoption (paragraph 11.9.4);
- .23 endorse the Sub-Committee's recommendation that DE 49 be invited to consider the draft Guidelines on design and construction to facilitate sediment control on ships (G12), and provide its comments to BLG 10 which should finalize the guidelines for adoption at MEPC 55 (paragraph 11.9.5);

- .24 approve the proposed amendments to regulation 21.2.2 of the revised MARPOL Annex I with a view to adoption at the earliest opportunity allowed by the amendment procedure of the MARPOL Convention (paragraph 12.10 and annex 15);
- .25 approve the draft Unified Interpretation 4.14 to regulation 13H(2) of the current MARPOL Annex I (paragraph 12.11 and annex 16);
- .26 adopt the draft MEPC resolution on the Guidelines for the application of the revised MARPOL Annex I requirements to FPSOs and FSUs (paragraph 13.8 and annex 17);
- .27 consider the draft terms of reference for the Sub-Committee and take action as appropriate, noting the points raised in the discussion (paragraphs 14.3 to 14.5 and annex 18);
- .28 approve the work programme for the intersessional meeting of the ESPH Working Group in October 2005 (paragraph 3.54);
- .29 approve, subject to MSC's concurrent decision, the proposed revised work programme of the Sub-Committee and provisional agenda for BLG 10 (paragraphs 14.6 and 14.7 and annex 19);
- .30 approve, subject to MSC's concurrent decision, the holding of an intersessional meeting of the ESPH Working Group in 2006 (paragraphs 3.55 and 14.10); and
- .31 approve the report of the Sub-Committee in general.

ANNEX 1

**DRAFT AMENDMENTS TO THE GUIDELINES FOR THE DEVELOPMENT OF
SHIPBOARD MARINE POLLUTION EMERGENCY PLANS FOR OIL AND/OR
NOXIOUS LIQUID SUBSTANCES (RESOLUTION MEPC.85(44))**

- 1 Replace the reference to “regulation 16 of Annex II” with “regulation 17 of Annex II” in relevant paragraphs;
- 2 Replace the reference to “regulation 26 of Annex I “ with “regulation 37 of Annex I”;
- 3 Note that resolution A.648(16) in the guidelines has been superseded by A.851(20) as amended;
- 4 Replace the word “dangerous” in paragraph 2.5.2.2.8 with the word “hazardous”;
- 5 Update the relevant ISBN numbers of the relevant publications in Appendix I to ensure that the list in Appendix I reflects the latest editions of the publications; and
- 6 Make any other consequential editorial amendments as necessary.

ANNEX 2

DRAFT AMENDMENTS TO THE GENERAL PRINCIPLES FOR SHIP REPORTING SYSTEMS AND SHIP REPORTING REQUIREMENTS, INCLUDING GUIDELINES FOR REPORTING INCIDENTS INVOLVING DANGEROUS GOODS, HARMFUL SUBSTANCES AND/OR MARINE POLLUTANTS (RESOLUTION A.851(20))

- 1 Add “if available” after “UN number or numbers” in paragraphs 3.2.1 P 2 and R 2; and
- 2 Replace “(A, B, C or D)” with “(X, Y or Z)” in paragraphs 3.2.1 R 3.

ANNEX 3**DRAFT AMENDMENTS TO THE CODE FOR THE CONSTRUCTION AND
EQUIPMENT OF SHIPS CARRYING DANGEROUS CHEMICALS
IN BULK (BCH CODE)****Preamble**

1 The following new paragraph is added:

“7 The Code has been revised to reflect the 2007 revision of the Annex II to MARPOL 73/78.”

**CHAPTER I
GENERAL****1.1 Purpose**

2 In the second sentence, delete the words “as defined in regulation 1(1) of Annex II thereof” and replace the references to (Pollution Category) “A, B or C” by “X, Y or Z”.

1.4 Definitions

3 Replace paragraph 1.4.16A by the following:

“1.4.16A *Noxious Liquid Substance* means any substance indicated in the Pollution Category column of chapter 17 or 18 of the International Bulk Chemical Code, or the current MEPC.2/Circular or provisionally assessed under the provisions of regulation 6.3 of the amendments to the Annex of the Protocol of 1978 relative to the International Convention for the Prevention of Pollution from Ships, 1973, as falling into Category X, Y or Z.”

4 In paragraph 1.4.16B delete the existing text and insert the word “Deleted”.

1.7 Effective date

5 In the second sentence of paragraph 1.7.2, replace the reference to “regulation 1(12)” by “regulation 1.17”.

1.8 New products

6 In the first sentence of paragraph 1.8, replace the reference to (Pollution Category) “A, B or C” by “X, Y or Z”.

**CHAPTER II
Cargo Containment****G – MATERIALS OF CONSTRUCTION****2.17 General**

7 The existing text is replaced by the following:

“2.17.1 Structural materials used for tank construction, together with associated piping, pumps, valves, vents and their jointing materials, should be suitable at the temperature and pressure for the cargo to be carried in accordance with recognized standards. Steel is assumed to be the normal material of construction.

2.17.2 Where applicable, the following should be taken into account in selecting the material of construction:

- .1 notch ductility at the operating temperature;
- .2 corrosive effect of the cargo; and
- .3 possibility of hazardous reactions between the cargo and the material of construction.

2.17.3 The shipper of the cargo is responsible for providing compatibility information to the ship operator and/or master. This must be done in a timely manner before transportation of the product. The cargo shall be compatible with all materials of construction such that:

- .1 no damage to the integrity of the materials of construction is incurred; and
- .2 no hazardous, or potentially hazardous reaction is created.

2.17.4 When a product is submitted to IMO for evaluation, and where compatibility of the product with materials referred to in paragraph 2.17 renders special requirements, the GESAMP/EHS Product Data Reporting Form shall provide information on the required materials of construction. These requirements shall be reflected in chapter IV and consequentially be referred to in *column o* of chapter 17 of the IBC Code. The reporting form shall also indicate if no special requirements are necessary. The producer of the product is responsible for providing the correct information.”

2.18 Additional requirements

- 8 Delete the existing text in paragraph 2.18 and insert the word “Deleted”.

CHAPTER III

Safety equipment and related considerations

E – FIRE PROTECTION

- 9 After the heading, the following words are inserted:

“(SOLAS regulations referred to in Part E mean, unless expressly provided otherwise, regulations in chapter II-2 of the International Convention for the Safety of Life at Sea, 1974 and its relevant amendments adopted before by resolution MSC.99(73))”.

3.13 Fire safety arrangements

10 Delete the existing text in paragraph 3.13.3 and insert the word “Deleted”.

11 The following new paragraph 3.13.5 is added:

“3.13.5 The following requirements in SOLAS chapter II-2, as adopted by MSC.99(73), should apply:

- (a) regulations II-2/4.5.10.1.1 and 4.5.10.1.4 and a system for continuous monitoring of the concentration of flammable vapours shall be fitted on ships of 500 tons gross tonnage and over by the date of the first scheduled dry-docking after [the date of entry into force of the amendment], but not later than [3 years after the date of entry into force of the amendment]. Sampling points or detector heads should be located in suitable positions in order that potentially dangerous leakages are readily detected. When the flammable vapour concentration reaches a pre-set level which shall not be higher than 10% of the lower flammable limit, a continuous audible and visual alarm signal shall be automatically effected in the pump-room and cargo control room to alert personnel to the potential hazard. However, existing monitoring systems already fitted having a pre-set level not greater than 30% of the lower flammable limit may be accepted. Notwithstanding the above provisions, the Administration may exempt ships not engaged on international voyages from those requirements;
- (b) regulations 13.3.4.2 to 13.3.4.5 and 13.4.3 should apply to ships of 500 tons gross tonnage and over;
- (c) regulations in Part E of chapter II-2 of SOLAS Convention except regulations 16.3.2.2 and 16.3.2.3 thereof, should apply to ships, regardless of their sizes;
- (d) where deep-fat cooking equipment is newly installed, regulation 10.6.4 should apply; and
- (e) fire-extinguishing systems using Halon 1211, 1301, and 2402 and perfluorocarbons should not be newly installed as prohibited by regulation 10.4.1.3.”.

F – PERSONAL PROTECTION

12 After the heading, the following words are inserted:

“(SOLAS regulations referred to in Part F mean, unless expressly provided otherwise, regulations in chapter II-2 of the International Convention for the Safety of Life at Sea, 1974 and its relevant amendments adopted before by resolution MSC.99(73))”.

CHAPTER IV
Special requirements

4.12 Materials of construction

13 Delete the existing text in paragraph 4.12 and insert the word “Deleted”.

4.15 Cargo contamination

14 Delete the existing text in paragraph 4.15.1 and insert the word “Deleted”.

CHAPTER V
Operational requirements

5.2 Cargo contamination

15 In paragraph 5.2.5, replace the viscosity figure “25 mPa”, which appears twice, with “50 mPa”.

16 Delete the existing text in paragraph 5.2.6 and insert the word “Deleted”.

17 Delete the existing text in paragraph 5.2.7 and insert the word “Deleted”.

CHAPTER VA
Additional measures for the protection of the marine environment

18 Delete the existing text and insert the word “Deleted”.

CHAPTER VI
Summary of minimum requirements

19 Delete IBC/BVH cross-references to the requirements under Materials of construction (column m) and the following cross-references under special requirements (*column o*):

“IBC Code reference	BCH Code reference
15.16.1	4.15.1
16.2.7	5.2.6
16.2.8	5.2.7
16A.2.2	5A.2.2”

CHAPTER VIII
Transport of liquid chemical wastes

20 Replace in paragraph 8.3.2.2 reference to “chapter 19” of the IBC Code by “chapter 20”.

Appendix

Model form of Certificate of Fitness for the
Carriage of Dangerous Chemicals in Bulk

21 Replace the existing form by the following:

**“MODEL FORM OF CERTIFICATE OF FITNESS FOR THE CARRIAGE OF
DANGEROUS CHEMICALS IN BULK**

**CERTIFICATE OF FITNESS FOR
THE CARRIAGE OF DANGEROUS CHEMICALS IN BULK**

(Official seal)

Issued under the provisions of the

CODE FOR THE CONSTRUCTION AND EQUIPMENT OF SHIPS CARRYING
DANGEROUS CHEMICALS IN BULK
(resolutions MSC....(...) and MEPC....(...))

under the authority of the Government of

.....
(full official designation of country)

by.....
(full designation of the competent person or organization recognized by the Administration)

Particulars of ship¹

Name of ship
Distinctive number or letters
Port of registry
Gross tonnage
Ship Type (Code paragraph 2.2.4)
IMO Number²

Date on which keel was laid or on which the ship was at a
similar stage of construction or (in the case of a converted ship)
date on which conversion to chemical tanker was commenced

The ship also complies fully with the following amendments to the Code:

.....
.....

¹ Alternatively, the particulars of the ship may be placed horizontally in boxes.

² In accordance with IMO ship identification number scheme adopted by the Organization by resolution A.600(15).

The ship is exempted from compliance with the following provisions of the Code:

.....
.....

THIS IS TO CERTIFY:

- 1 That the ship has been surveyed in accordance with the provisions of section 1.6 of the Code;
- 2 That the survey showed that the construction and equipment of the ship and the condition thereof are in all respects satisfactory and that the ship:
 - .1 complies with the relevant provisions of the Code applicable to ships referred to in 1.7.2;
 - .2 complies with the relevant provisions of the Code applicable to ships referred to in 1.7.3;
- 3 That the ship has been provided with a manual in accordance with Appendix 4 of Annex II as called for by regulation 14 of Annex II of MARPOL 73/78, and that the arrangements and equipment of the ship prescribed in the Manual are in all respects satisfactory;
- 4 That the ship meets the requirements for the carriage in bulk of the following products, provided that all relevant operational provisions of the Code and Annex II of MARPOL 73/78 are observed:

Product	Conditions of carriage (tank numbers etc.)	Pollution Category
Continued on attachment 1, additional signed and dated sheets ³ Tank numbers referred to in this list are identified on attachment 2, signed and dated tank plan.		

- 5 That, in accordance with 1.7.3 / 2.2.5³, the provisions of the Code are modified in respect of the ship in the following manner:

.....
- 6 That the ship must be loaded:
 - .1 in accordance with the loading conditions provided in the approved loading manual, stamped and dated and signed by a responsible officer of the Administration, or of an organization recognized by the Administration³;
 - .2 in accordance with the loading limitations appended to this Certificate³.

³ Delete as appropriate.

Where it is required to load the ship other than in accordance with the above instruction, then the necessary calculations to justify the proposed loading conditions should be communicated to the certifying Administration who may authorize in writing the adoption of the proposed loading condition⁴.

This Certificate is valid until⁵
subject to surveys in accordance with 1.6 of the Code.

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

Issued at
(Place of issue of certificate)

.....
(Date of issue)

.....
(Signature of authorized official
issuing the certificate)

(Seal or stamp of the authority, as appropriate)

Notes on completion of Certificate:

- 1 The Certificate can be issued only to ships entitled to fly the flags of States which are a Party to MARPOL 73/78.
- 2 Ship Type: Any entry under this column must relate to all relevant recommendations, e.g. an entry "Type 2" should mean Type 2 in all respects prescribed by the Code. This column would not usually apply in the cases of an existing ship and in such a case should be noted "see paragraph 2.2".
- 3 Products: Products listed in chapter 17 of the Code, or which have been evaluated by the Administration in accordance with 1.8 of the Code, should be listed. In respect of the latter "new" products, any special requirements provisionally prescribed should be noted.
- 4 Products: The list of products the ship is suitable to carry should include the noxious liquid substances of Category Z which are not covered by the Code and should be identified as "chapter 18 Category Z".
- 5 *deleted*
- 6 Conditions of carriage: If a Certificate is issued to a ship which is modified in accordance with the provision of regulation 1(12) of Annex II to MARPOL 73/78 the Certificate should indicate in the top of the table of products and conditions of carriage the following statement: "This ship is certificated to carry only pollution hazard chemicals".

⁴ Instead of being incorporated in the Certificate, this text may be appended to the Certificate if signed and stamped.

⁵ Insert the date of expiry as specified by the Administration in accordance with 1.6.6.1 of the Code. The day and the month of this day correspond to the anniversary date as defined in 1.4.16C of the Code, unless amended in accordance with 1.6.6.8 of the Code.

**ANNUAL/INTERMEDIATE SURVEY IN ACCORDANCE WITH
PARAGRAPH 1.6.6.8.3**

THIS IS TO CERTIFY that, at an annual/intermediate³ survey in accordance with paragraph 1.6.6.8.3 of the Code, the ship was found to comply with the relevant provisions of the Convention:

Signed
(Signature of duly authorized official)

Place

Date (dd/mm/yyyy)

(Seal or stamp of the Authority, as appropriate)

**ENDORSEMENT TO EXTEND THE CERTIFICATE IF VALID
FOR LESS THAN 5 YEARS WHERE PARAGRAPH 1.6.6.3 APPLIES**

The ship complies with the relevant provisions of the Convention, and this Certificate shall, in accordance with paragraph 1.6.6.3 of the Code, be accepted as valid until

Signed
(Signature of duly authorized official)

Place

Date (dd/mm/yyyy)

(Seal or stamp of the Authority, as appropriate)

**ENDORSEMENT WHERE THE RENEWAL SURVEY HAS BEEN
COMPLETED AND PARAGRAPH 1.6.6.4 APPLIES**

The ship complies with the relevant provisions of the Convention, and this Certificate shall, in accordance with paragraph 1.6.6.4 of the Code, be accepted as valid until

Annual survey:

Signed
(Signature of duly authorized official)

Place

Date (dd/mm/yyyy)

(Seal or stamp of the Authority, as appropriate)

³ Delete as appropriate.

**ENDORSEMENT TO EXTEND THE VALIDITY OF THE CERTIFICATE
UNTIL REACHING THE PORT OF SURVEY OR FOR A PERIOD
OF GRACE WHERE PARAGRAPH 1.6.6.5 OR 1.6.6.6 APPLIES**

This Certificate shall, in accordance with paragraph 1.6.6.5/1.6.6.6³ of the Code, be accepted as valid until

Signed
(Signature of duly authorized official)

Place

Date (dd/mm/yyyy)

(Seal or stamp of the Authority, as appropriate)

**ENDORSEMENT FOR ADVANCEMENT OF ANNIVERSARY DATE WHERE
PARAGRAPH 1.6.6.8 APPLIES**

In accordance with paragraph 1.6.6.8 of the Code, the new anniversary date is

Signed
(Signature of duly authorized official)

Place

Date (dd/mm/yyyy)

(Seal or stamp of the Authority, as appropriate)

In accordance with paragraph 1.6.6.8, the new anniversary date is

Signed
(Signature of duly authorized official)

Place

Date (dd/mm/yyyy)

(Seal or stamp of the Authority, as appropriate)

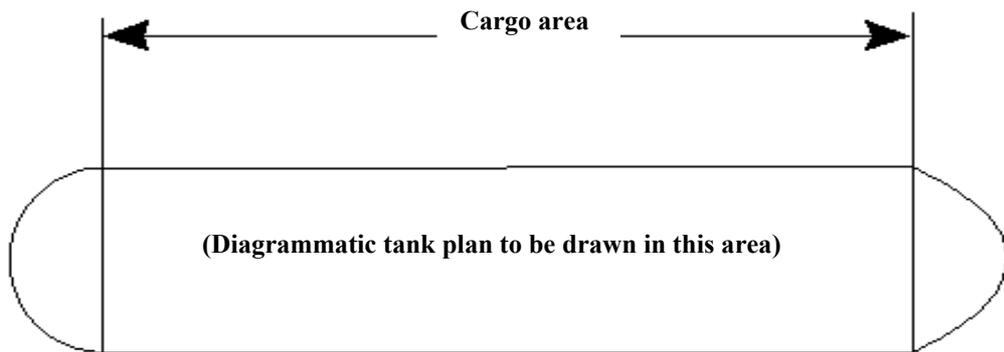
³ Delete as appropriate.

**ATTACHMENT 2
TO THE
CERTIFICATE OF FITNESS FOR THE CARRIAGE OF DANGEROUS
CHEMICALS IN BULK**

TANK PLAN (specimen)

Name of ship:

Distinctive number or letters:



Date
(as for Certificate)

.....
(Signature of official issuing the Certificate
and/or seal of issuing authority)"

ANNEX 4

**LIST OF CLEANING ADDITIVES FOUND TO MEET THE REQUIREMENTS OF
PARAGRAPH 1.8.2 OF THE STANDARDS FOR
PROCEDURES AND ARRANGEMENTS**

Manufacturer	Name of cleaning additive
SNOWCLEAN AB	Marclean XP0321
OWT Services	CP Leadclean Metal Brightner Super degreaser
HVR Milieumanagement BV	FF-AR
JME Technische Handelonderneming BV	BC 10 BC 20
UNITOR Chemicals	Metal Bright HD
Chemtec Consulting GmbH	KT – PLUS KT – Special CHEMTEC CTR
Schmitt und Finkelmann (INLABCO)	Watensol N Watensol S
Henkel	Novaclean 100 marine Novaclean 200 marine Novaclean 400 marine

ANNEX 5

**GUIDELINES ON THE COMPLETION OF THE BLG PRODUCT
DATA REPORTING FORM****1 General Comments applicable to all sections of the BLG Product Data Reporting Form**

1.1 Most properties have the following boxes associated with them:

.1 **Qual:** This is used to provide additional information about the reported value when required. The data used to complete this box must be selected from the following:

- blank No qualification is necessary or appropriate as it is deemed to mean ‘=’
- > Greater than
- < Less than
- ~ Approximately
- E Estimated (this can be used with any of the other qualifiers)
- NF Non-Flammable (used for flash point, autoignition temperature and explosion limits to show that the product is not hazardous).

.2 **Lower Value:** Where only one value exists, it should be put in this box. Where there is a range of values, the lower value should be put in this box e.g. mixtures or impure products have a boiling range rather than a boiling point and so the initial boiling point is put in the **Lower Value** and the dry point is put in the **Upper Value**. For most purposes, the Lower Value will be used and is normally the only one that must be completed, though for **Explosion Limits**, both the **Lower Value** and the **Upper Value** are necessary.

.3 **Reference and Comments:** This should be completed so that the source of data can be traced. This may be a reference to company information, open literature or justification for an estimated value e.g. read across from a similar chemical.

2 Section 1: Product Identity

2.1 This section serves to provide as much identification of the product as possible. It is recognized that some of the boxes may not be relevant, such as the Chemical Abstract Services Number (C.A.S Number) that is normally only applicable to technically pure products or process streams. However, it is advisable to complete this section as much as possible as it facilitates the classification process and provides a mechanism for checking that the product has not been processed under a different name.

2.2 **EHS Number:** This is the reference number issued and used by the GESAMP EHS Working Group to identify every chemical in its Composite List of products that it has evaluated.

2.3 **BMR Number:** This is the reference number issued and used by IMO to identify every chemical in the IBC Code and the Tripartite Agreements listed in MEPC.2/Circs.

2.4 **Associated Synonyms:** These are product names, other than those identified in the boxes for **Main Trade Name**, **Main Chemical Name** and **Proper Shipping Name**; they tend to be less common names and should be described in the **Type of Name** section by a qualifier.

2.5 Synonyms in the official languages of IMO should also be included where possible.

2.6 **Composition:** This section shall be used to include components of mixtures and impurities of any product; each entry in this section should include the percentage and Type (described as either C (Component) or I (Impurity)). In situations where this information is confidential, the data should be provided separately to the Reporting State.

3 Section 2: Physical Properties

3.1 It is important to recognize that, unless otherwise indicated, **ALL** the physical properties of the product referred to in this section have to be completed in order to enable the correct carriage requirements to be assigned.

3.2 Special attention should be given to paragraph 1.1 of these guidelines when completing this section on physical properties.

3.3 The additional specific notes are applicable to the physical properties section:

- .1 If the product is not flammable then put 'NF' in the Qual box for flash point, autoignition temperature, explosion limits and maximum experimental safe gap (MESG).
- .2 If the flash point is $>200^{\circ}\text{C}$ and the autoignition temperature has not been measured, it may safely be estimated as $> 200^{\circ}\text{C}$ which is the cut-off point for defining a product as subject to chapter 17 of the IBC Code.
- .3 For products which do not have a clear melting point, the pour point is regarded as being equivalent. In these cases the reference should include the term '(pour point)'.

4 Section 3: Relevant Chemical Properties

Water Reactivity Index

4.1 This parameter is an indication of the product's reactivity with water which will result in a hazard. As there are no quantitative definitions for this property, the following guidelines are provided with examples given that can be used for purposes of comparison:

- | | |
|-------|--|
| WRI=2 | Applies to any chemical which, in contact with water, may produce a toxic, flammable or corrosive gas or aerosol. |
| WRI=1 | Applies to any chemical which, in contact with water, may generate heat producing a non-toxic, non-flammable or non corrosive gas. |
| WRI=0 | Applies to any chemical which, in contact with water, would not undergo a reaction to justify a value of 1 or 2. |

5 Section 4: Mammalian Toxicity

Acute Inhalation Toxicity

5.1 It is recognized that oral and dermal toxicity data are more widely available than inhalation data, which are expensive to generate and not normally justified unless the product is volatile or adverse effects are generated by other routes of exposure. However, it is still necessary to complete these boxes which may be done by analogy to other products if the data have not been generated directly.

5.2 The following guidance notes are providing to facilitate the completion of this property:

- .1 measured data should be reported whenever possible;
- .2 if the LC_{50} value is less than or equal to the Saturated Vapour Concentration (SVC), that value will be used in the assignment of carriage requirements;
- .3 where the inhalation toxicity is greater than the SVC at ambient temperature, this should be reported in the “Qual” box as “>SVC”; and
- .4 where the inhalation toxicity has not been measured the Qual box must include 'E' to indicate that the value has been estimated and the Reference box should indicate the basis for such estimate.

ANNEX 6**DRAFT AMENDMENTS TO THE GUIDELINES FOR THE TRANSPORT AND HANDLING OF LIMITED AMOUNTS OF HAZARDOUS AND NOXIOUS LIQUID SUBSTANCES IN BULK ON OFFSHORE SUPPORT VESSELS
(RESOLUTION A.673(16))****PREAMBLE**

- 1 In paragraph 2, replace “regulation 13(4) of Annex II” with “regulation 11(2) of Annex II”;

CHAPTER 1 – GENERAL**1.2 Scope**

- 2 Delete in paragraph 1.2.2.1.2 the words “category A, B and C”;

1.3 Definitions

- 3 Delete paragraph 1.3.6;
- 4 Renumber paragraph “1.3.7” to “1.3.6”;
- 5 Renumber paragraph “1.3.8” to “1.3.7”;
- 6 Renumber paragraph “1.3.9” to “1.3.8”;
- 7 Renumber paragraph “1.3.10” to “1.3.9” and add “as amended” after MEPC.19(22);
- 8 Renumber paragraph “1.3.11” as “1.3.10” and add “as amended” after MSC.5(48);
- 9 Delete paragraphs 1.3.12 and 1.3.13;

1.5 Survey and Certification

- 10 In paragraph 1.5.2, replace “regulation 11 of Annex II” with “regulations 7 and 9 of Annex II”;

CHAPTER 3 – SHIP DESIGN**3.4 Cargo tank construction**

- 11 In paragraph 3.4.4.1, replace “0.7 bar” with “0.07 mPa”;

3.6 Cargo tank vent systems

- 12 In paragraph 3.6.2, replace “8.2.2” with “8.3.4”;

3.16 Emergency remote shutdown

- 13 In paragraph 3.16, replace “50 bar gauge” with “5 mPa”;

CHAPTER 4 – POLLUTION REQUIREMENTS

- 14 The existing text of paragraph 4.1 is replaced by the following:
- “Each ship certified to carry Noxious Liquid Substances should be provided with a Cargo Record Book, a Procedure and Arrangements Manual and a Shipboard Marine Emergency Plan developed for the ship in accordance with Annex II to MARPOL 73/78 and approved by the Administration”;
- 15 The existing text of paragraph 4.2 is replaced by the following:
- “Discharge into the sea of residues of Noxious Liquid Substances permitted for the carriage in Ship Type 3, or products listed in appendix 1 or ballast water, tank washings, or other residues or mixtures containing such substances, is prohibited. Any discharges of residues and mixtures containing Noxious Liquid Substances should be to reception facilities in port. As a consequence of this prohibition, the Administration may waive the requirements for efficient stripping and underwater discharge arrangements in MARPOL 73/78, Annex II”;
- 16 Delete paragraph 4.3;
- 17 Renumber paragraph “4.4” as “4.3”;
- 18 Replace Appendix 1 with the following:

“APPENDIX 1

TABLE OF PERMITTED PRODUCTS

	Flammability
Acetic acid	Yes
Formic acid	Yes
Hydrochloric Acid	No
Hydrochloric-hydrofluoric mixtures containing 3% or less hydrofluoric acid	No
Drilling brines containing zinc salts	No
Drilling brines including: calcium bromide solution, calcium chloride solution and sodium chloride solution	No
Sulphuric Acid	No
Toulene	Yes
Xylene	Yes
Liquid carbon dioxide	No
Liquid nitrogen	No”

- 19 In appendix 2 – Model Form of Certificate of Fitness – to be brought in line with the format in the consequential amendments of the IBC Code.

ANNEX 7

DRAFT MSC/MEPC CIRCULAR**GUIDELINES ON THE BASIC ELEMENTS OF A SHIPBOARD
OCCUPATIONAL HEALTH AND SAFETY PROGRAMME**

1 The Maritime Safety Committee, at its [eighty-first session (.....)], and the Marine Environment Protection Committee at its [fifty-third session (18 to 22 July 2005)], recognizing the need to provide guidance to personnel or consultants who are implementing, improving or auditing the effectiveness of shipboard health and safety programmes, approved the Guidelines on the basic elements of a shipboard occupational health and safety programme, as set out in the annex.

2 Member Governments are invited to bring the annexed Guidelines to the attention of all parties concerned so that they may use them when implementing, improving or auditing the effectiveness of a shipboard health and safety programme.

ANNEX

GUIDELINES ON THE BASIC ELEMENTS OF A SHIPBOARD OCCUPATIONAL HEALTH AND SAFETY PROGRAMME

1 Purpose

1.1 These guidelines describe the basic elements of a shipboard occupational health and safety programme (SOHSP). The elements set out in the appendices are applicable to all vessel types and are fundamental pieces of a systematic occupational health and safety programme, which may be used by company line managers, health and safety personnel or consultants who are implementing, improving or auditing the effectiveness of a shipboard health and safety programme.

2 Application

2.1 These guidelines do not set specific performance or technical criteria, but recommends that companies set policies and objectives and develop procedures for managing their health and safety programme. Companies should consider their unique organization, culture and hazards on their vessels and the possible effects of their operations. The elements are intentionally flexible and may be adapted to address any size of operation or any vessel type. However, it should be noted that, although the standard is aimed at the shipboard occupational health and safety programmes, some of the elements address activities and commitments that must be completed or made by shore side personnel (e.g. executive management commitment and provision of adequate resources). Key to the effectiveness of the programme is the implementation of each element within an interconnected system.

3 Basic elements

3.1 Executive Management commitment and leadership. Executive management commitment and leadership is a precondition for an effective SOHSP. Executive management commitment and leadership includes, but is not limited to: (a) integrating health and safety into the management structure and fabric of the company; (b) developing a health and safety policy; (c) developing health and safety objectives; (d) providing resources to achieve the objectives; (e) defining stewardship responsibilities, and providing authority to carry out those responsibilities, and (f) establishing accountability for health and safety as a part of job performance reviews. Further guidance is provided in appendix 1.

3.2 Employee participation. Employees from all levels including crew members, officers, masters, persons in charge, and shore-side personnel should be directly involved with the SOHSP. Shipboard and shore-side employees should be involved in developing, implementing, evaluating, and modifying the SOHSP. Employees should also participate in setting health and safety objectives and performance criteria. This involvement might be through employee membership on safety committees that provide input to management for the development of health and safety policy, debate and set health and safety goals, measure and evaluate performance, and recommend modifications to the programme based on their evaluation. Shore-side and shipboard employees should work together to achieve health and safety goals. For example, shore side personnel should participate on vessel safety committees since their decisions affect vessel operations and ultimately the health and safety of vessel personnel. In large companies, individual vessel safety committees might submit recommendations to an overarching safety committee that evaluates the recommendations and sets policy to apply appropriate recommendations to the entire fleet. Further guidance is provided in appendix 2.

3.3 Hazard anticipation, identification, evaluation and control. The core function of any health and safety programme is prevention. Health and safety hazards including fire, reactivity, chemical and physical hazards need to be anticipated and prevented from occurring. Hazards and unsafe operating procedures need to be identified and addressed so they will not endanger employees or the public, and will not damage the vessel, cargo or third party property. Potential hazards should be systematically anticipated, identified, evaluated and controlled. Tools such as job hazard analysis, industrial hygiene exposure assessments, and risk assessment/management methodologies enable the evaluation and control of hazards. Further guidance is provided in appendix 3.

3.4 Training. Employees should receive training appropriate for their duties and responsibilities so that they may work safely and not endanger their shipmates or the public. In addition, employees who have specific health and safety responsibilities (generally supervisors with responsibility for the safety of others, but also non-supervisors who are assigned to safety committees or as crew member representatives) should receive training to enable them to carry out their health and safety programme responsibilities. Further guidance is provided in appendix 4.

3.5 Record keeping. Company records sufficient to demonstrate the effectiveness of the health and safety programme should be maintained. Data that enables trend or pattern analysis for root causes is particularly desirable. For example, results of audits that evaluate effectiveness of the health and safety management system should be maintained. Records that indicate industrial hygiene exposure assessments have been conducted and appropriate controls have been implemented should be maintained. Current job safety analyses and corresponding standard operating procedures with safe work practices should be documented. Injury and illness data should be maintained to enable the identification of trends and patterns that associate the injury or illness with a common cause, which can be addressed. Training topics, lesson outlines and attendees should be documented. Where appropriate, such records should permit evaluation of the programme on individual vessels as well as across an entire fleet. Further guidance is provided in appendix 5.

3.6 Contract or third party personnel. When contract or third party personnel are on board to perform work, vessel personnel should provide information regarding potential hazards on the vessel that may affect the contract or third party personnel. Potential hazards related to the work conducted by contract or third party personnel should be provided to the vessel owner/operator and/or the master/person-in-charge. Each employer should provide appropriate information regarding vessel and work hazards to their own employees. For example, exchange of information on chemical hazards might be accomplished by exchanging appropriate safety data sheets (SDS), then each employer can inform their own employees of the hazards identified in the SDS. Further guidance is provided in appendix 6.

3.7 Fatality, injury, illness and incident investigation. Personnel injuries, occupational illnesses, and “near miss” incidents should be promptly investigated. The current incident and other similar occurrences should be analysed to identify the primary (root) cause and any contributing factors. The investigation report, setting forth primary cause, contributing factors, and corrective measures should be presented to management. Follow up action which specifically addresses the report’s recommendations for corrective action should be undertaken and documented. Further guidance is provided in appendix 7.

3.8 Systematic programme evaluation and continuous improvement. Maintaining an effective health and safety programme is an ongoing process. The SOHSP should have systems for detecting, reporting, and correcting non-conformities to the programme. Some type of "formalized" evaluation should also be conducted on a periodic basis consistent with other aspects of the vessel's management plan. The evaluation should determine whether the SOHSP is appropriate for the vessel and its operations, that actual practices are consistent with the programmes and procedures in the SOHSP, and that the SOHSP is effective. Comparison of data and records (refer to appendix 5, Record keeping) to performance objectives and criteria (refer to appendix 1, paragraph 3, health and safety objectives) can provide important indicators of the effectiveness of the SOHSP. Further guidance is provided in appendix 8.

APPENDIX 1

MANAGEMENT COMMITMENT AND LEADERSHIP

1 Health and safety programmes are most effective when they are integrated into the management structure of a company, rather than treated as an "add on" programme. Examples of integrated health and safety efforts include:

- .1 developing standard operating procedures (SOPs), written to the education level of the person who must follow the SOP, that integrate safe work practices and basic operational functions;
- .2 making design review by qualified health and safety personnel an element of the acquisition procedures; and
- .3 making consultation with qualified health and safety personnel a part of the process when making changes to operations.

2 Executive management sets the tone for the entire SOHSP through their policy regarding health and safety. Examples of values that can be stated and commitments that can be made in company policy include:

- .1 a statement that the company will make every effort to provide a safe and healthy workplace and that working safely is a condition of employment;
- .2 statements that convey how important each crew member is to the vessel as a fellow worker and as a company resource:

"The basic safety policy of this company is that no task is so important that an employee must violate a safety rule or put himself or herself at risk of injury or illness in order to get it done.";

- .3 a written commitment to provide resources necessary to implement the health and safety programme could also be included in the policy statement; and
- .4 management can demonstrate commitment to the health and safety policies through word and action. For example, managers visiting vessels should follow safety rules and standard operating procedures, including use of hearing protection, safety glasses, safety shoes, protective clothing, etc.

3 Setting and attaining health and safety objectives demonstrates a company's commitment to improvement of health and safety performance. Objectives provide a target against which those who are responsible for health and safety may measure their progress. Quantifiable objectives are desirable since often "What gets measured gets done." (Refer to appendix 8, Systematic Programme Evaluation, for examples of performance measures and an over-all programme audit). Health and safety objectives may include:

- .1 eliminate Lost Time Incidents;

- .2 report "near miss" incidents or problems, evaluate, and if appropriate, implement changes to prevent a more serious incident or accident in the future;
- .3 develop and implement a programme of evaluations through drills and other means (for example, simulators) to ensure that personnel are competent to carry out their duties;
- .4 improve the health and safety programme by reviewing, considering and implementing appropriate published industry practices and other recognized standards;
- .5 complete periodic comprehensive (or area-specific) hazard review;
- .6 reduce exposure levels to airborne vapours to acceptable levels through appropriate controls;
- .7 complete annual respiratory fit-testing on schedule;
- .8 develop and implement acute toxic exposure procedures addressing first aid procedures, obtaining additional emergency medical assistance, and appropriate medical surveillance tests (for example, S-Phenylmercapturic acid in urine following a potential benzene over-exposure); and
- .9 develop and implement an occupational health medical surveillance plan*.

4 Company management holds the authority to dedicate necessary resources to achieve health and safety objectives. Necessary resources may include:

- .1 access to health and safety information;
- .2 training, including classroom and on-the-job training, that cover topics identified by the company's risk assessment process as well as those required by international or national standards. These topics would include but not be limited to existing chemical and mechanical hazards;
- .3 qualified health and safety professionals, either on the company staff or hired as consultants;
- .4 capital investments in engineering controls; and
- .5 personal protective equipment.

5 Defining stewardship responsibilities and providing authority to carry out those responsibilities is an essential component of management commitment. For example:

- .1 Company management should:

* **Note:** The intent of this medical surveillance plan is to ensure employees are not over exposed to hazards on the job including chemicals, radiation, noise, etc. This section is not intended to address physical standards related to watchkeeping published elsewhere.

- .1.1 designate a shore side person who has access to the executive management of the company and is responsible to ensure essential health and safety issues are clearly communicated to executive management of the company, and decisions regarding those issues are clearly communicated back to the vessel;
- .1.2 ensure adequate resources of time, funds for health and safety equipment, training and expertise are available to effectively implement the programme throughout the company;
- .1.3 ensure that a safety committee or other mechanism to adequately involve crewmembers in health and safety issues is created on each vessel;
- .1.4 ensure that the elements of the shipboard health and safety programme are integrated and systematically implemented throughout the company and on each vessel;
- .1.5 ensure that objectives are developed and performance measures are reported from each vessel;
- .1.6 ensure that all appropriate programmes are developed and implemented including, but not limited to respiratory protection, hearing protection, confined space entry, and lock out-tag out;
- .1.7 set a good example for employees by following established safety rules on vessels and by staying current on training commensurate with duties; and
- .1.8 report unsafe practices or conditions observed while on a vessel to the supervisor of the area;
- .2 Master/person-in-charge/operator should:
 - .2.1 ensure each crewmember receives an initial vessel orientation, covering company safety policy, emergency procedures, access and egress, fire fighting, job hazards, and information on hazardous materials before beginning work. Document the completion of this orientation;
 - .2.2 ensure each crewmember is competent to perform a task or job by requiring a pre-job explanation and/or walk through of all procedures including safe work practices before starting work on that project or equipment. Require pre-job refresher training if the employee cannot demonstrate this competence;
 - .2.3 ensure each crewmember has been issued and received training on the use of required personal protective equipment (PPE) before starting work on a project requiring PPE;
 - .2.4 complete periodic walk-around health and safety checks of the vessel accompanied by appropriate personnel including those who have responsibilities or work in certain areas (e.g., Chief engineer and an oiler in engine spaces or First mate and able-bodied seaman on deck);

- .2.5 periodically observe work performance of employees for compliance with safety rules contained or documented in the SOHSP;
- .2.6 set a good example for subordinates by following established safety rules and attending training as appropriate;
- .2.7 complete a preliminary investigation of all accidents and report findings to company management; and
- .2.8 provide information to company management suggesting changes to company-wide standard operating procedures or equipment that will improve employee safety;
- .3 Officers/other management personnel should:
 - .3.1 act as the master's or person-in-charge's representative, and implement examples listed for the master in areas over which they exercise supervision (e.g. First Mate responsible for "deck" personnel and Chief Engineer responsible for "engineers").

6 Management should establish accountability for health and safety as part of job performance reviews. Performance reporting regarding health is as important and should be as routine within the company as reports regarding timeliness of delivery, cargo loss or contamination, or citations regarding violations of regulations.

APPENDIX 2

EMPLOYEE PARTICIPATION

1 Full participation in developing, implementing, evaluating and continually improving the SOHSP helps those on board the vessel see the SOHSP as something that is the result of a value they share with vessel owners/operators. Personnel directly involved with the work are often the best source of information on health or safety hazards and often can suggest effective methods for abating those hazards. Shore side personnel need to be directly and heavily involved with the SOHSP because they are integral in setting the rules and schedules for vessel operation. Shore side personnel also represent the vessel to management and are the link to the resources and authority necessary for the success of the SOHSP. Specific ways that crewmembers, officers, and shore side personnel can contribute to the SOHSP include:

- .1 participating in periodic vessel inspections;
- .2 evaluating health and safety programme materials;
- .3 developing standard operating procedures that incorporate safe working practices;
- .4 conducting job safety/hazard analyses (JSAs/JHAs);
- .5 reviewing and analysing injury and illness data;
- .6 participating in risk assessment and risk management activities;
- .7 participating in accident/incident/problem investigations;
- .8 developing solutions to health and safety complaints and disputes;
- .9 evaluating health and safety training activities; and
- .10 evaluating the health and safety management system.

2 Line or operations personnel including crewmembers, officers and shore side personnel outside the health and safety staff may need training in health and safety techniques such as job safety/hazard analysis, reviewing injury and illness data for trends, risk assessment and investigations. This initial training investment enables those who do the work to meaningfully participate in identifying and solving health and safety problems. Those crewmembers, officers and shore-side personnel who receive additional training in health and safety and actively participate in the development of the vessel and/or company SOHSP also become health and safety “champions” among their peers. Additional information on training is provided in appendix 4.

3 Since health and safety objectives and performance may directly affect crew members' and officers' current and/or future health and safety, they should be involved in setting those objectives and performance criteria. This participation may be accomplished through health and safety committee involvement, labour negotiations, or other mechanism suitable to the specific company. Refer to appendix 1, paragraph 3, for examples of health and safety objectives and performance criteria.

4 Employees should:

- .1 fully understand (including underlying principles) and follow established standard operating procedures and safety rules;
- .2 report unsafe conditions or actions to supervisor as soon as they become aware of them;
- .3 report all injuries to supervisor promptly;
- .4 report all accidents, near misses or problems to supervisor promptly;
- .5 use personal protective equipment (PPE) in good working condition where it is required;
- .6 do not remove or defeat any safety device or safeguard;
- .7 encourage shipmates by words and behaviour to follow standard operating procedures and use safe work practices on the job; and
- .8 make suggestions to supervisor or safety committee representative about changes to operating procedures, work practices or equipment that will improve safety.

APPENDIX 3

HAZARD ANTICIPATION, IDENTIFICATION, EVALUATION AND CONTROL

1 Potential hazards on the vessel and created by the vessel should be systematically anticipated, identified, evaluated and controlled. Hazards that should be discovered, evaluated and controlled by the SOHSP include hazards addressed by the organization and by the Administration, and other hazards that are causing or likely to cause illness, death or serious physical harm to workers or the public. Types of hazards to consider may include:

- .1 hazardous atmospheres due to oxygen deficiency, flammable or toxic gases or vapours, and biological agents;
- .2 chemical hazards and the proper handling of vessel generated hazardous wastes;
- .3 physical hazards including noise, vibration, radiation, electricity, uncontrolled mechanical energy, shifting cargoes that may engulf a crewmember;
- .4 ergonomic factors including fatigue, workstation design, and poor team practices;
- .5 collisions, groundings, or rammings and their resultant impacts; and
- .6 drowning.

2 Methods of anticipation include:

- .1 systematic requirements for vessel and equipment design and modification review by qualified health and safety personnel;
- .2 periodic management review of the vessel and its operation, its equipment, and its fitness-for-purpose;
- .3 a procurement system that automatically requires consideration of health and safety aspects of items ordered;
- .4 consideration of fitness for current conditions; and
- .5 systematic review of vessel and shore side team practices.

3 Methods of identifying hazards include:

- .1 vessel inspections;
- .2 industrial hygiene exposure assessments of chemical and biological hazards including inhalation and dermal exposure routes, and physical hazards such as vibration and ergonomic hazards;
- .3 job safety analyses including risk assessment, both statistical and expert opinion based;

- .4 employee hazardous condition notification system including easy to understand labelling system for all possible mechanical and chemical hazards; and
 - .5 review of available health and safety data to identify trends.
- 4 Methods of hazard evaluation include:
- .1 comparison of industrial hygiene exposure levels to standards identified in the SOHSP (e.g., standards required by regulation or prudent levels adopted by the company in the absence of regulatory requirements); and
 - .2 risk analysis tools:
 - .1 hazard effects and control analysis;
 - .2 hazard control analysis;
 - .3 fault tree analysis of possibilities based on expert opinion;
 - .4 management oversight and risk analysis; and
 - .5 task hazard analysis.
- 5 Methods of hazard control are hierarchical. In order of preference, they include:
- .1 inherent safe design and verification of design output to design requirements;
 - .2 material substitution such as:
 - .1 non-hazardous insulation for asbestos lagging;
 - .2 citrus based cleaning agents for solvent-based cleaning agents; and
 - .3 non-toxic paint for toxic paint.
 - .3 Engineering controls such as:
 - .1 closed gauging;
 - .2 vapour recovery systems; and
 - .3 climate-controlled spaces such as control booths in engine-rooms.
 - .4 Administrative controls such as:
 - .1 systematic review for fitness of vessel for operations;
 - .2 standard operating procedures that incorporate safe work practices. Some activities that might require standard operating procedures with integrated safe work practices include:

- .1 machinery start-up and shut-down operations;
- .2 emergency response to machinery failures;
- .3 getting underway and entering port operations;
- .4 cargo loading and unloading operations;
- .5 response to unplanned or emergency situations during cargo operations;
- .6 man overboard procedures;
- .7 lifeboat launching procedures;
- .8 watchkeeping procedures;
- .9 team working procedures such as:
 - .1 bridge resource management taught in simulators with practice by actual team members; and
 - .2 pre-job planning and briefings;
- .10 job hazard/safety analyses (JHAs/JSAs);
- .11 emergency procedures; and
- .12 systematic inspection of incoming equipment and equipment in use to ensure conformation to specifications identified in the SOHSP (for example, personal protective equipment).
- .3 an easy to understand labelling system for all possible mechanical and chemical hazards;
- .4 occupational medical surveillance programmes tailored to vessel and cargo hazards; and
- .5 specific programmes that need special attention within the overall SOHSP:
 - .1 respiratory protection programme;
 - .2 hearing loss prevention programme;
 - .3 safe lifting procedures; and
 - .4 permit-to-work programmes for operations such as:
 - .1 lock out and tag out;
 - .2 tank or hold cleaning operations;

- .3 confined space entry;
- .4 hot work operations, including a gas-freeing programme;
and
- .5 working aloft.
- .5 health and safety equipment control, calibration, and maintenance procedures;
- .6 security procedures to control entry and exit of personnel to and from the vessel;
- .7 basic safety rules such as:
 - .1 You shall not do things, which are unsafe in order to get the job done. If a necessary activity is unsafe, report it to your supervisor so it can be evaluated and alternate methods developed.
 - .2 Mechanical guards must be kept in place at all times when machinery is being operated. Do not remove or disable any safety device!
 - .3 No person may operate a piece of equipment unless they have been trained and are authorized. Notify your supervisor that you need training if you are asked to perform a function you did not learn in meeting the requirements for your level.
 - .4 Use your personal protective equipment whenever it is required.
 - .5 Obey all safety warning signs.
 - .6 Smoking is only permitted in designated locations and may be entirely prohibited at certain times, such as during cargo transfer operations.
 - .7 Good housekeeping is an important part of accident prevention. Replace all tools and supplies after use. Do not allow rubbish or debris to accumulate where they will become a hazard;
- .8 employee assistance and wellness programmes;
- .9 pre-employment chemical tests for dangerous drugs;
- .10 incentive programmes such as:
 - .1 safety awards;
 - .2 bonuses; and
 - .3 vessel competitions;
- .11 disciplinary policy that provides for progressive consequences depending on the severity and/or repetition of the violation of a safety rule;

- .12 personal protective equipment such as:
 - .1 safety glasses, goggles, hearing protection, safety shoes, protective clothing, chemical protective booties, respiratory protection; and
 - .2 impervious gloves for food handlers as appropriate; and
- .13 preventive maintenance of the vessel and equipment and basic housekeeping programmes.

APPENDIX 4

TRAINING

1 Training to enable all employees to recognize hazards and to take appropriate precautions should include:

- .1 general orientation to the company;
- .2 overview of the company's health and safety programme;
- .3 vessel orientation including access and egress;
- .4 emergency procedures in case of fire, confined space entry incident, release of hazardous chemicals or cargo, and over-exposure;
- .5 the nature of potential hazards to which employees may be exposed during routine tasks and how to recognize symptoms of exposure;
- .6 use of protective measures, such as standard operating procedures that incorporate safe work practices, and protective equipment and clothing (refer to appendix 3, paragraph 5, hazard control);
- .7 specific programmes including respiratory protection, confined space entry, hearing loss prevention, lock-out-tag-out, fall protection, safe lifting, health and safety equipment control, calibration and maintenance; and
- .8 recognition and control of fatigue.

2 Additional training for those with specific health or safety responsibilities may include:

- .1 risk assessment and risk management including:
 - .1 health and safety data trend analysis;
 - .2 job safety analysis; and
 - .3 shipboard watch implications,
- .2 fatality, injury, illness, "near miss" incident, and problem investigation and root cause analysis.

3 Effective worker protection programmes do not stop at initial training. Effective programmes evaluate the success of the training provided and offer refresher training on both a routine and as-needed basis.

4 Elaborate training programmes solely related to health and safety are not always needed. Integrating consideration of health and safety protection into all organizational activities is the key to effectiveness. Health and safety information should be integrated into other training about performance requirements and job practices.

APPENDIX 5

RECORD KEEPING

1 Records are needed to document hazard control efforts such as job hazard analyses, industrial hygiene sampling, and training. Data collection systems that enable trend analysis help in identifying injuries and illnesses with common causes. A review of shipboard personnel injury and illness experience over a period of time may reveal patterns of injury and illness with common causes, which can be addressed. Similarly, a review of accidents, “near miss” incidents or problems over time can reveal patterns of dangerous practice, which need correction to assure safety. The correlation of changes in injury, illness and “near miss” incident or problem experience with changes in the health and safety programme. Operations, work processes, and personnel may help to identify potential causes and likelihood of personnel accidents, injuries, and illnesses, and danger or risk to the public. Audits that evaluate the effectiveness of the health and safety programme can be used to identify weak points in the system.

2 Examples of records that should be maintained include:

- .1 death, injury, illness, accident, “near miss” incident, and problem data including:
 - .1 investigation reports and root cause analysis (see also appendix 7, fatality, injury, illness and incident investigation); and
 - .2 injury, illness, near miss and problem rates;
- .2 hazardous condition notifications and abatement actions;
- .3 crewmember safety suggestions;
- .4 industrial hygiene monitoring results for both personal and area samples;
- .5 job safety analyses;
- .6 safety committee reports;
- .7 safety inspection reports or log entries;
- .8 medical surveillance data (aimed at identifying exposures so that proper interventions, including improvement of hazard controls, may be initiated);
- .9 training (refer to appendix 4 for a discussion of recommended training):
 - .1 record training outline, date and attendance; and
 - .2 record completion of courses such as fire fighting and confined space entry schools; and
- .10 health and safety management system audits (refer to appendix 8 for an example).

3 The extent of record keeping necessary to document the effectiveness of the programme will vary depending on the size of the company, level and nature of exposure to hazards on the vessel, and other factors. The records should be maintained as long as necessary in light of their intended use.

4 Records of individual ships should also be shared with other ships and analysed as a larger base of data to gain information on frequency of problems to better identify trends.

APPENDIX 6

CONTRACT OR THIRD PARTY PERSONNEL

1 The vessel owner/operator and/or the master/person-in-charge should provide information on applicable elements of the company's health and safety programme. Vessel hazards, safety rules, standard operating procedures, and emergency procedures with contract or third party personnel who may be exposed to vessel or cargo hazards.

2 The contractor or third party should inform his/her employees of the applicable elements of the vessel's health and safety programme and of any known vessel or cargo hazards to which his/her employees may be exposed. The contract or third party person-in-charge should also direct his/her employees to follow the health and safety rules of the vessel to the extent that they meet or exceed the contractor's or third party's own requirements.

3 The contract or third party person-in-charge should inform the vessel's master or person-in-charge of any health and safety hazards presented by their work and how they will address those hazards. The contract or third party person-in-charge should also inform the vessel personnel of any other health and safety hazards in the course of their work on the vessel.

4 During the initial exchange of information regarding vessel hazards and hazards presented by the work intended, the actions of the contractor or third party toward the health and safety of the vessel crew and their own employees should be clearly identified. Likewise, the actions of the vessel personnel toward the health and safety of the contractor or third party should be clearly identified. Emergency procedures should be clearly agreed upon in advance.

APPENDIX 7

FATALITY, INJURY, ILLNESS AND INCIDENT INVESTIGATION

1 The objective of an investigation is to prevent related incidents from recurring. An investigation should identify the circumstances of the injury, illness or incident and reveal the proximate causes, contributing factors, and root causes by gathering and analysing information and drawing conclusions. Identification and correction of causes may prevent similar incidents from recurring. Furthermore, identifying and correcting a true root cause may prevent other, apparently unrelated incidents, giving even more return on the effort expended to identify root causes. For example, if a problem with the company's training system was identified as the root cause for a confined space incident, then correcting the entire training system may prevent an injury that would have been caused by an untrained person improperly operating a piece of machinery.

2 Start the investigation as soon as possible after the incident occurs. Interview workers involved in the incident and all witnesses. Discover situations leading up to the incident including several days before. These situations may include contributing factors. (Human factors including fatigue often are found as root or contributing factors and may accumulate over a period of time.) Examine the location of the incident and identify factors associated with the incident. Interview other company personnel as needed to determine root causes. Document the investigation and recommendations.

3 The final report should include:

- .1 a summary outlining the basic facts of the incident;
- .2 a narrative detailing the circumstances of the casualty or near incident;
- .3 analysis and comment that lead to logical conclusions or findings, establishing all the factors, including root cause(s) that contributed to the incident; and
- .4 immediate and long-term recommendations aimed at preventing similar accidents and correcting root causes.

4 It may be helpful to categorize investigation data. An example of a one-page form divided into information categories is provided. Additional pages might be used to record the summary, narrative, analysis and recommendations.

<input type="checkbox"/> Fatality, <input type="checkbox"/> Injury, <input type="checkbox"/> Illness, or		<input type="checkbox"/> Incident Investigation		Date:		Time:	
Vessel Name:		Type of Vessel:		Class. Society:		Vessel Location:	
				Temp:		Wind Spd:	
						Sea State:	
Vessel operation at time of incident: <input type="checkbox"/> Discharging cargo <input type="checkbox"/> Loading cargo <input type="checkbox"/> Gas freeing tanks <input type="checkbox"/> Stripping tanks <input type="checkbox"/> Cleaning tanks <input type="checkbox"/> Receiving fuel <input type="checkbox"/> Mooring at dock <input type="checkbox"/> Replenishment at sea <input type="checkbox"/> Transit harbour <input type="checkbox"/> Transit restricted channel <input type="checkbox"/> Resource exploration <input type="checkbox"/> Resource production <input type="checkbox"/> Trawling <input type="checkbox"/> Underway at sea				Lead Investigator: _____ Captain/PIC: _____ Related Vessel Casualty: <input type="checkbox"/> Allision <input type="checkbox"/> Fire or explosion <input type="checkbox"/> Collision <input type="checkbox"/> Machinery damage <input type="checkbox"/> Strand/grounding <input type="checkbox"/> Capsize <input type="checkbox"/> Failure: hull, water tight doors, ports, etc. <input type="checkbox"/> Listing <input type="checkbox"/> Other: _____			
Employee Name: _____ Employee ID No.: _____ Employee Position on Vessel: <input type="checkbox"/> Deck Crew <input type="checkbox"/> Deck Officer <input type="checkbox"/> Engineering Crew <input type="checkbox"/> Engineering Officer <input type="checkbox"/> Master <input type="checkbox"/> Steward <input type="checkbox"/> Tankerman <input type="checkbox"/> Person-In-Charge <input type="checkbox"/> OIM <input type="checkbox"/> Platform worker <input type="checkbox"/> Passenger <input type="checkbox"/> Gov. employee <input type="checkbox"/> Longshore/harbour worker <input type="checkbox"/> Visitor				Nature of Accident or Incident: <input type="checkbox"/> Slip/fall-stairs <input type="checkbox"/> Slip/fall-gangway <input type="checkbox"/> Slip/fall-deck <input type="checkbox"/> Slip/fall-other _____ <input type="checkbox"/> Fall, same level <input type="checkbox"/> Fall, into water <input type="checkbox"/> Struck, falling object <input type="checkbox"/> Struck, flying object <input type="checkbox"/> Struck, moving obj. <input type="checkbox"/> Bumped fixed obj. <input type="checkbox"/> Struck, vessel <input type="checkbox"/> Struck, other _____ <input type="checkbox"/> Pinched/crushed <input type="checkbox"/> Cut, bruise <input type="checkbox"/> Sprain/strain <input type="checkbox"/> Overexertion <input type="checkbox"/> Caught in lines <input type="checkbox"/> Burned, non-electric <input type="checkbox"/> Burned, electric <input type="checkbox"/> Scalded <input type="checkbox"/> Hypothermia <input type="checkbox"/> Hyperthermia <input type="checkbox"/> Diving accident <input type="checkbox"/> Asphyxiation <input type="checkbox"/> Acute toxic exposure <input type="checkbox"/> Chronic toxic expos <input type="checkbox"/> Disappeared <input type="checkbox"/> Other _____			
Nature of fatality, injury or illness: <input type="checkbox"/> Allergic rxn <input type="checkbox"/> Asphyx. <input type="checkbox"/> Thermal burn <input type="checkbox"/> Chemical burn <input type="checkbox"/> Electrical burn (shock) <input type="checkbox"/> Aggravated old injury <input type="checkbox"/> Abrasion <input type="checkbox"/> Bruise <input type="checkbox"/> Concussion <input type="checkbox"/> Blister <input type="checkbox"/> Drowning <input type="checkbox"/> Strain <input type="checkbox"/> Cut <input type="checkbox"/> Haemorrhoid <input type="checkbox"/> Sprain <input type="checkbox"/> Fracture <input type="checkbox"/> Puncture <input type="checkbox"/> Hernia <input type="checkbox"/> Infectious Dx. <input type="checkbox"/> Heat Stroke <input type="checkbox"/> Blood Clot <input type="checkbox"/> Unknown <input type="checkbox"/> Other _____				Activity person undertaking when accident occurred: <input type="checkbox"/> Deck duty <input type="checkbox"/> Engine duty <input type="checkbox"/> Drilling <input type="checkbox"/> Fishing <input type="checkbox"/> Handling cargo <input type="checkbox"/> Handling lines <input type="checkbox"/> Operating machinery <input type="checkbox"/> Repairing machinery <input type="checkbox"/> Steward duty <input type="checkbox"/> Passenger <input type="checkbox"/> Off duty – exercising <input type="checkbox"/> Off duty			
Part of body injured: <input type="checkbox"/> Back <input type="checkbox"/> Chest <input type="checkbox"/> Ankle <input type="checkbox"/> Arm <input type="checkbox"/> Groin <input type="checkbox"/> Hand <input type="checkbox"/> Foot <input type="checkbox"/> Finger <input type="checkbox"/> Knee <input type="checkbox"/> Leg <input type="checkbox"/> Hip <input type="checkbox"/> Head <input type="checkbox"/> Shoulder <input type="checkbox"/> Stomach <input type="checkbox"/> Trunk <input type="checkbox"/> Neck <input type="checkbox"/> Multiple Inj <input type="checkbox"/> Cardiovasc <input type="checkbox"/> Other _____				Proximate and contributory cause(s) of accident or incident: <input type="checkbox"/> Intoxication, alcohol <input type="checkbox"/> Intoxication, narcotics <input type="checkbox"/> Adverse weather <input type="checkbox"/> Faulty planning <input type="checkbox"/> Command problem <input type="checkbox"/> Haste <input type="checkbox"/> Excessive task/wk load <input type="checkbox"/> Task time problem <input type="checkbox"/> Inappropriate policy <input type="checkbox"/> Boredom, inattention <input type="checkbox"/> Carelessness <input type="checkbox"/> Judgment error <input type="checkbox"/> Cognitive function error <input type="checkbox"/> Inadequate training <input type="checkbox"/> Fatigue <input type="checkbox"/> Untimely info flow <input type="checkbox"/> Inaccurate info flow <input type="checkbox"/> Design-control interface <input type="checkbox"/> Design-emergency sys's <input type="checkbox"/> Design-general layout <input type="checkbox"/> Design-work station <input type="checkbox"/> Psychological factors <input type="checkbox"/> Physical factors <input type="checkbox"/> Deck cluttered <input type="checkbox"/> Deck slippery <input type="checkbox"/> Equipment failure <input type="checkbox"/> Failure-use PFD <input type="checkbox"/> No PFD available <input type="checkbox"/> Chemical rxn or release <input type="checkbox"/> Failure-use PPE <input type="checkbox"/> No/Inad. PPE available <input type="checkbox"/> Inadequate/miss guard <input type="checkbox"/> Improper maintenance <input type="checkbox"/> Insufficient ventilation <input type="checkbox"/> Improper supervision <input type="checkbox"/> Misuse of tools/equip <input type="checkbox"/> Improper lighting <input type="checkbox"/> Improper tools/equip <input type="checkbox"/> Improper load/storage <input type="checkbox"/> Material failure <input type="checkbox"/> Inadequate/miss rail <input type="checkbox"/> Mooring line surge			
Location when injured/at time of near miss: <input type="checkbox"/> Unknown <input type="checkbox"/> Aft area <input type="checkbox"/> Bridge <input type="checkbox"/> Cargo hold <input type="checkbox"/> Pump room <input type="checkbox"/> Cargo tank <input type="checkbox"/> Deck stores <input type="checkbox"/> Deck, open <input type="checkbox"/> Engine rm <input type="checkbox"/> Engine stores <input type="checkbox"/> Fire room <input type="checkbox"/> Forepeak <input type="checkbox"/> Galley <input type="checkbox"/> Fwd area <input type="checkbox"/> Fuel tank <input type="checkbox"/> Laundry rm <input type="checkbox"/> Machinery spaces <input type="checkbox"/> Mast, boom, rigging <input type="checkbox"/> Mid-ship area <input type="checkbox"/> Quarters <input type="checkbox"/> Paint locker <input type="checkbox"/> Offices <input type="checkbox"/> Ballast tank <input type="checkbox"/> Shaft alley <input type="checkbox"/> Passageway <input type="checkbox"/> Void <input type="checkbox"/> Cofferdam <input type="checkbox"/> Steering spc <input type="checkbox"/> Mud pit <input type="checkbox"/> Drill. Platform <input type="checkbox"/> Windlass rm <input type="checkbox"/> Other _____				Root cause(s): <input type="checkbox"/> Managemnt Commitment <input type="checkbox"/> Record keeping <input type="checkbox"/> Employee Involvement <input type="checkbox"/> Contract/third party <input type="checkbox"/> Hazard id, eval, control <input type="checkbox"/> Investigation <input type="checkbox"/> Training <input type="checkbox"/> Systematic Evaluation			
Signature Lead Investigator _____ Date: _____ Signature Captain/PIC _____ Date: _____							

APPENDIX 8

SYSTEMATIC SHIPBOARD OCCUPATIONAL HEALTH AND SAFETY EVALUATION

- 1 Tools that may help with programme evaluation include:
 - .1 trend analysis of fatality, injury, illness and “near miss” incident statistics;
 - .2 trend analysis of records of “unsafe acts or behaviours”;
 - .3 review of vessel safety committee reports and recommendations; and
 - .4 review of hazardous condition notifications and abatement actions.
- 2 Performance measures that may assist in programme evaluation include:
 - .1 lost time incident rate;
 - .2 fatality rate;
 - .3 acute toxic exposure incidents per 1,000 employee work hours;
 - .4 number of non-conformities with standard operating procedures per 100 employee work hours;
 - .5 percentage of training required by SOHSP completed on schedule;
 - .6 percentage of annual respiratory fit testing completed on schedule; and
 - .7 percentage of annual medical monitoring exams completed on schedule.
- 3 The following audit tool may be used to evaluate a SOHSP. The elements scored in the audit tool are the first seven elements of a SOHSP. Some elements are further divided into factors that are individually scored. The auditor should objectively score the vessel’s SOHSP on each of the individual factors and elements after obtaining the necessary information to do so.
 - .1 calculate the overall score, after scoring each element, as follows:
 - .1 the score for the Management Commitment and Leadership Element is the lower of the two scores of the General and Implementation Factors;
 - .2 the score for the Employee Participation Element is the lower of the two scores for the General and Hazard Reporting Factors;
 - .3 the score for the Hazard Anticipation, Identification, Evaluation and Control Element is the average of all six Factors; and
 - .4 the scores for single-Factor Elements are the scores for the Factor;
 - .2 the overall score is the average score of the seven Element scores and may be assigned a “verbal” description based upon the score.

SCORE	Level of Shipboard Occupational Health and Safety Programme
5	Outstanding Programme
4	Superior Programme
3	Basic Programme
2	Developmental Programme
1	No programme or ineffective programme

<i>Programme Element</i>	<i>Absent or ineffective(1)</i>	<i>Developmental (2)</i>	<i>Basic(3)</i>	<i>Superior(4)</i>	<i>Outstanding(5)</i>
<i>Management Commitment And Leadership</i>					
General					
Implementation					
Overall Score for element		Lowest of 2 Sections			
<i>Employee Participation</i>					
General					
Hazard Reporting					
Overall Score for element		Lowest of 2 Sections			
<i>Hazard Anticipation, Identification, Evaluation, & Control</i>					
Anticipation, Identification, & Evaluation					
Control – General					
Control – Maintenance					
Control – Medical Programme					
Control – Emergency Prep-Planning & Drills					
Control – Emergency Prep-First Aid					
Overall Score for element		Average of 6 sections			
<i>Health and Safety Training</i>					
General					
Overall Score for element		Score of 1 section			
<i>Record Keeping</i>					
Data Collection and Analysis					
Overall Score for element		Score of 1 section			
<i>Contract and Third Party Personnel</i>					
General					
Overall Score for element		Score of 1 section			
<i>Fatality, Injury, Illness & Accident Investigation</i>					
General					
Overall Score for element		Score of 1 section			
Overall Programme Score		Average of 7 Elements Rounded			

Attached tables provide the verbal descriptions for the numeric indicators above.

MANAGEMENT COMMITMENT AND LEADERSHIP	
General	
Management commitment and leadership is a precondition for an effective SOHSP.	
1	Management demonstrates no policy, goals, objectives, or interest in health and safety issues on this vessel.
2	Management sets and communicates health and safety policy and goals, but remains detached from all other health and safety efforts.
3	Management follows all health and safety rules, and gives visible support to the health and safety efforts of others.
4	Management participates in significant aspects of the ship's health and safety programme. Such as ship inspections, incident reviews, and programme reviews. Incentive programmes that discourage reporting of accidents, symptoms, injuries, or hazards are absent. Other incentive programmes may be present.
5	Ship health and safety issues are regularly included on agendas of management operations meetings. Management clearly demonstrates — by involvement, support, and example — the primary importance of health and safety. Performance is consistent and sustained or has improved over time.

MANAGEMENT COMMITMENT AND LEADERSHIP	
Implementation	
Implementation means tools, provided by management that include:	
<ul style="list-style-type: none"> • resources: <ul style="list-style-type: none"> • budget • information • expertise/training • personnel • defined and assigned responsibilities • commensurate authority to carry out responsibilities • accountability 	
1	Tools to implement a health and safety are inadequate or missing.
2	Some tools to implement a health and safety programme are adequate and effectively used; others are ineffective or inadequate. Management assigns responsibility for implementing a ship health and safety programme to identified person(s). Management's designated representative has authority to direct abatement of hazards that can be corrected without major capital expenditure.
3	Tools to implement a health and safety programme are adequate, but are not all effectively used. Management representative has some expertise in hazard recognition and applicable standards. Management keeps or has access to applicable standards on the unit, and seeks appropriate guidance for interpretation of the standards. Management representative has authority to order/purchase health and safety equipment.
4	All tools to implement a health and safety programme are more than adequate and effectively used. Written safety procedures, policies, and interpretations are updated based on reviews of the health and safety programme. Health and safety expenditures, including training costs and personnel, are identified in the vessel budget. Hazard abatement is an element in management (officers/persons in charge/supervisors) performance evaluation.
5	All tools necessary to implement a good health and safety programme are more than adequate and effectively used. Management health and safety representative has expertise appropriate to vessel size and operation, and has access to professional advice when needed. Health and safety budgets and funding procedures are reviewed periodically for adequacy.

EMPLOYEE PARTICIPATION	
General	
Employee participation provides the means through which those who actually do the work identify hazards, recommend and monitor abatement, and otherwise participate in their own protection.	
1	Worker participation in workplace health and safety concerns is not encouraged. Incentive programmes are present which have the effect of discouraging reporting of incidents, injuries, potential hazards or symptoms. Employees/employee representatives are not involved in the shipboard health and safety programme.
2	Workers and their representatives can participate freely in health and safety activities on the unit without fear of reprisal. Procedures are in place for communication between employer and workers on health and safety matters. Workers are able to refuse or stop work that they reasonably believe involves imminent danger. Workers are paid while performing safety activities.
3	Workers and their representatives are involved in the health and safety programme. Involved in inspection of work areas, and are permitted to observe monitoring and receive results. Workers and representatives have access to information regarding the shipboard health and safety programme including health and safety data trend analysis, job task analysis, and industrial hygiene sampling data. A documented procedure is in place for raising complaints of hazards or discrimination and receiving timely employer response.
4	Workers and their representatives participate in workplace analysis, inspections and investigations, and development of control strategies throughout the vessel, and have necessary training and education to participate in such activities. Workers and their representatives have access to all pertinent health and safety information, including safety reports and audits. Workers are informed of their right to refuse job assignments that pose serious hazards to them pending management response.
5	Workers and their representatives participate fully in development of the health and safety programme and conduct of training and education. Workers participate in audits, programme reviews conducted by management or third parties, and collection of samples for monitoring purposes, and have necessary training and education to participate in such activities. Employer encourages and authorizes employees to stop activities that present potentially serious health and safety hazards.

EMPLOYEE PARTICIPATION	
Hazard Reporting	
A reliable hazard reporting system enables employees, without fear of reprisal, to notify management of conditions that appear hazardous and to receive timely and appropriate responses.	
1	No formal hazard reporting system exists, or employees are reluctant to report hazards.
2	Employees are instructed to report hazards to management. Supervisors are instructed and are aware of a procedure for evaluating and responding to such reports. Employees use the system with no risk of reprisals.
3	A formal system for hazard reporting exists. Employee reports of hazards are documented, corrective action is scheduled, and records maintained.
4	Employees are periodically instructed in hazard identification and reporting procedures. Management conducts surveys of employee observations of hazards to ensure that the system is working. Results are documented.
5	Management responds to reports of hazards in writing within specified time frames. The workforce readily identifies and self-corrects hazards; they are supported by management to do so.

HAZARD ANTICIPATION, IDENTIFICATION, EVALUATION AND CONTROL	
Anticipation, Identification and Evaluation	
<p>Anticipation and identification and evaluation of hazards involves systematic review of vessel and equipment design, review of the vessel and equipment fitness for current conditions and operations, a procurement system that requires consideration of health and safety aspects of items ordered, vessel inspections, exposure assessments, job safety analyses, mechanisms for employees to report hazardous conditions and review of health and safety data and records to identify trends.</p>	
1	<p>No system or requirement exists for hazard review of planned/changed/new equipment or operations. There are no requirements to consider health and safety aspect of items purchased for the vessel. There is no evidence of comprehensive inspections for safety or health hazards, exposure assessments, routine job safety analysis or health and safety data trend analysis.</p>
2	<p>The person-in-charge of operation and/or equipment changes considers health and safety implications of the changes, but has not had appropriate training to be able to identify all health and safety consequences of the changes. The person responsible for procurement considers health and safety issues, but has not been trained on hazards that may be encountered. Inspections for health and safety hazards are conducted by vessel and corporate personnel, but only in response to accidents or complaints. The employer has identified principle health and safety standards appropriate for the vessel. Supervisors dedicate time to observing work practices and other health and safety conditions in work areas where they have responsibility.</p>
3	<p>Competent person(s) determine health and safety consequences of proposed changes in high-hazard operations or equipment before the changes occur, and appropriate precautions are implemented. Competent person(s) determine health and safety hazards of all items procured, and appropriate precautions are taken when the item is used. Vessel and corporate personnel with specific training in health and safety hazards conduct vessel inspections. Items in need of correction are documented. Inspections include compliance with relevant regulations, industry standards and practices. Time periods for corrections are set. Current hazard analyses are written (where appropriate) for all high-hazard jobs and processes; analyses are communicated to and understood by affected employees. Hazard analyses are conducted for jobs/tasks/workstations where injury or illnesses have been recorded.</p>
4	<p>Competent person(s) in consultation with a qualified professional determines health and safety consequences of all proposed changes in operations or equipment before the changes occur, and appropriate precautions are implemented. Competent person(s) determine health and safety hazards of all items requested for procurement, identify appropriate substitutions for hazardous items, or ensure appropriate precautions are taken if a substitute cannot be identified. A qualified professional conducted a vessel inspection within the last five years, and competent person(s), trained in items identified by the qualified professional, conduct periodic inspections and appropriate corrective actions are taken promptly. The inspections are planned, with key observations or check points defined and results documented. Corrections are documented through follow-up inspections. Results are available to workers. Current hazard analyses are documented for all work areas and are communicated and available to all employees.</p>
5	<p>Qualified professionals in consultation with certified health and safety professional(s) analyze health and safety consequences of all proposed changes in operations or equipment, identify substitutions if possible or ensure appropriate precautions are implemented as the change occurs. Competent person(s) in consultation with qualified professional(s) or certified health and safety professional(s), as needed, identify health and safety hazards of all items requested for procurement and obtain substitutes for hazardous items. Regular inspections are planned and overseen by certified safety or health professionals. Statistically valid random audits of compliance with all elements of the shipboard health and safety programme are conducted. Observations are analyzed to evaluate progress. Documented workplace hazard evaluations are conducted by certified health and safety professional(s). Corrective action is documented and hazard inventories are updated.</p>

HAZARD ANTICIPATION, IDENTIFICATION, EVALUATION AND CONTROL	
Control – General	
Workforce exposure to all current and potential hazards should be prevented or controlled by using engineering controls whenever feasible and appropriate, work practices and administrative controls, and personal protective equipment.	
1	Hazard control is seriously lacking or absent from the vessel.
2	Hazard controls are generally in place, but effectiveness and completeness vary. Serious hazards may still exist. Employer has achieved general compliance with applicable standards regarding hazards with a significant probability of causing serious physical harm. Hazards that have caused past injuries on the vessel have been corrected.
3	Appropriate controls (engineering, work practice, and administrative controls, and PPE) are in place for significant hazards. Some serious hazards may exist. Employer is generally in compliance with voluntary standards, industry practices, and manufacturers' and suppliers' safety recommendations. Documented reviews determining the need for machine guarding, energy lockout, ergonomics programme. Materials handling procedures, blood borne pathogen programme. Confined space entry programme. Hazard communication, and other generally applicable programmes have been conducted. The overall programme tolerates occasional deviations.
4	Hazard controls are fully in place, and are known and supported by the workforce. Few serious hazards exist. The employer requires strict and complete compliance with all applicable regulations, consensus standards and industry practices and recommendations. All deviations are identified and causes determined.
5	Hazard controls are fully in place and continually improved upon based on workplace experience and general knowledge. Documented reviews of needs are conducted by certified health and safety professionals.

HAZARD ANTICIPATION, IDENTIFICATION, EVALUATION AND CONTROL	
Control – Maintenance	
An effective shipboard health and safety programme will provide for vessel and equipment maintenance, so that hazardous breakdowns are prevented.	
1	No preventive maintenance programme is in place; breakdown maintenance is the rule.
2	There is a preventive maintenance schedule, but it does not cover everything and may be allowed to slide or performance is not documented. Safety devices on machinery and equipment are generally checked before each shift.
3	A preventive maintenance schedule is implemented for areas where it is most needed; it is followed under normal circumstances. Manufacturers' and industry recommendations and consensus standards for maintenance frequency are followed. Breakdown repairs for safety related items are expedited. Safety device checks are documented. Ventilation system function is observed periodically.
4	The employer has effectively implemented a preventive maintenance schedule that applies to all equipment. Vessel experience is used to improve safety-related preventative maintenance scheduling.
5	There is a comprehensive safety and preventive maintenance programme that maximizes equipment reliability.

HAZARD ANTICIPATION, IDENTIFICATION, EVALUATION AND CONTROL	
Control – Medical Programme	
An effective shipboard health and safety programme will include a suitable medical programme where it is appropriate for the nature of the hazards.	
1	Management is unaware of, or unresponsive to occupational medical surveillance needs. Required medical surveillance, monitoring and reporting are absent or inadequate.
2	Required medical surveillance, monitoring, removal, and reporting responsibilities for applicable standards are assigned and carried out, but results may be incomplete or inadequate.
3	Medical surveillance, removal, monitoring, and reporting comply with applicable standards. Employees report early signs/symptoms of job-related injury or illness and receive appropriate treatment.
4	Health care providers provide follow-up on employee treatment protocols and are involved in hazard identification and control on the vessel. Medical surveillance addresses conditions not covered by specific standards. Employee concerns about medical treatment are documented and responded to.
5	Health care providers periodically observe the work areas and activities and are fully involved in hazard identification and training.

HAZARD ANTICIPATION, IDENTIFICATION, EVALUATION AND CONTROL	
Control – Emergency Preparedness – Planning and Drills	
There should be appropriate planning, training/drills, and equipment for response to emergencies.	
1	Little or no effort to prepare for emergencies.
2	Emergency response plans for fire, chemical, and weather emergencies as required by regulation are present. Training is conducted as required by the applicable regulation. Some deficiencies may exist.
3	Persons with specific training have prepared emergency response plans. Appropriate alarm systems are present. Employees are trained in emergency procedures. The emergency response extends to spills and incidents in routine operation. Adequate supply of spill control and PPE appropriate to hazards on ship is available.
4	Abandoned ship drills are conducted in accordance no less than annually. The plan is reviewed by a qualified health and safety professional.
5	Vessel personnel with emergency response assignments have adequate training. All potential emergencies have been identified. Emergency response plans and performance are re-evaluated at least annually and after each significant incident. Procedures for terminating an emergency response condition are clearly defined.

HAZARD ANTICIPATION, IDENTIFICATION, EVALUATION AND CONTROL	
Control – Emergency Preparedness – First Aid	
First aid/emergency care should be readily available to minimize harm if an injury or illness occurs.	
1	First aid/emergency care cannot be ensured.
2	First aid/emergency care is available on every shift.
3	Personnel with appropriate first aid skills commensurate with likely hazards on the vessel and as required by applicable regulations are available. Management documents and evaluates response time on a continuing basis.
4	Personnel with <u>certified</u> first aid skills are always available on-ship; their level of training is appropriate to the hazards of the work being done. Adequacy of first aid is formally reviewed after significant incidents.
5	Personnel trained in advanced first aid and/or emergency medical care are always available on-ship.

HEALTH AND SAFETY TRAINING	
General	
Health and safety training should cover the health and safety responsibilities of all personnel who work on the vessel or affect its operations. It is most effective when incorporated into other training about performance requirements and job practices. It should include all subjects and areas necessary to address the hazards on the vessel.	
1	Vessel personnel depend on experience and peer training to meet needs. Master/person-in-charge/others in supervisory positions demonstrate little or no involvement in health and safety training responsibilities.
2	Some orientation training is given to new hires. Some safety training materials (e.g., pamphlets, posters, videotapes) are available or are used periodically at safety meetings, but there is little or no documentation of training or assessment of worker knowledge for a given topic. Masters/persons in charge/and others in supervisory positions generally demonstrate awareness of health and safety responsibilities, but have limited training themselves or involvement in the ship's training programme.
3	Training includes regulatory rights and access to information. Training required by regulations is provided to all vessel employees. Supervisors attend training in all subjects provided to employees under their direction. Vessel personnel can generally demonstrate the skills/knowledge necessary to perform their jobs safely. Records of training are kept and training is evaluated to ensure it is effective.
4	Knowledgeable persons conduct health and safety training that is scheduled, assessed, and documented, and addresses all necessary technical topics. Employees are trained to recognize hazards, violations of regulations, and vessel practices. Employees are trained to report violations to management. Training is followed up with performance observation and feedback. All crew — including supervisors and masters/persons in charge—can demonstrate preparedness for participation in the overall health and safety programme. There are easily retrievable scheduling and record keeping systems.
5	Knowledgeable persons conduct health and safety training that is scheduled, assessed, and documented. Training covers all necessary topics and situations, whether addressed in regulations or not, and includes all persons on the vessel (unlicensed personnel to the master or person-in-charge, contractors, and temporary employees). Employees participate in creating ship-specific training methods and materials. Employees are trained to recognize inadequate responses to reported programme violations. Retrievable record keeping system provides for appropriate retraining, makeup training, and modifications to training as the result of evaluations.

RECORD KEEPING	
Data Collection and Analysis	
An effective shipboard occupational health and safety programme will collect and analyze injury, illness, and “near miss” incident data for indications of sources and locations of hazards, and jobs that experience higher numbers of incidents. By analyzing injury, illness and “near miss” incident trends over time, patterns with common causes can be identified and prevented.	
1	Little or no collection and/or analysis of injury, illness or “near miss” incident data. Exposure monitoring is not conducted or documented.
2	Injury, illness and “near miss” incident data is collected and analyzed, but not widely used for prevention. CG-2692 is completed for all reportable marine casualties. Exposure records and analysis are organized and are available to safety personnel.
3	Injury, illness, and “near miss” incident logs and exposure records are kept, are audited by shore-side management personnel, and are essentially accurate and complete. Rates are calculated so as to identify high-risk areas and jobs. Liability claims are analyzed and the results are used in the programme. Significant analytical findings are used for prevention.
4	Shore-side management and vessel master/person-in-charge and supervisors can identify the frequent and most severe problem areas, the high-risk areas and job classifications, and any exposures that exceed relevant or company standards. Data are fully analyzed and effectively communicated to employees. Injury, illness and “near miss” incident data are audited and certified by a responsible person.
5	All levels of management and the workforce are aware of results of data analyses and resulting preventive activity. External audits of accuracy of injury, illness and “near miss” incident data, including review of all available data sources are conducted. Scientific analysis of health information, including non-occupational databases is included where appropriate in the programme.

CONTRACT AND THIRD PARTY PERSONNEL	
General	
An effective health and safety programme protects all personnel on the vessel, including the employees of contractors, subcontractors and third party personnel. It is the responsibility of shore-side management and the vessel master or person-in-charge to address contractor safety and third party safety.	
1	Shore-side management and the vessel master or person-in-charge make no provision to include contractors and third party personnel within the scope of the vessel’s health and safety programme.
2	Vessel safety policy requires contractor and third party personnel to conform to applicable regulations and other legal requirements.
3	The master/person-in-charge designates a representative to monitor contractor and third party health and safety practices, and that individual has authority to stop contractor practices that expose host or contractor employees to hazards. Management informs contractor and employees of hazards present at the facility.
4	Shore-side management investigates a contractor’s health and safety record as one of the bidding criteria. Shore-side management contacts third party personnel management if necessary to correct unsafe third party behaviour.
5	The vessel’s health and safety programme ensures protection of everyone aboard including full-time employees, temporary employees, contractors, and third party personnel.

FATALITY, INJURY, ILLNESS AND INCIDENT INVESTIGATION	
General	
An effective shipboard occupational health and safety programme will provide for investigation of accidents and “near miss” incidents, so that their causes, and the means for their prevention, are identified.	
1	No investigation of accidents, injuries, near misses, or other incidents is conducted.
2	Some investigation of incidents takes place, but root cause may not be identified, and correction may be inconsistent. Supervisors prepare injury reports for lost time incidents greater than 72 hours.
3	All “recordable incidents” are documented in a log. Reports are generally prepared with cause identification and corrective measures prescribed.
4	“Recordable incidents” are always investigated, and effective prevention is implemented. Reports and recommendations are available to employees. Trained safety personnel systematically review quality and completeness of investigations.
5	All loss-producing accidents and “near-misses” are investigated for root causes by teams or individuals that include trained safety personnel and employees.

ANNEX 8

DRAFT MSC CIRCULAR

**INTERPRETATION OR APPLICATION OF THE IGC CODE
FOR SHIPS CARRYING LIQUEFIED CARBON DIOXIDE IN BULK**

1 The Maritime Safety Committee, [at its eighty-second session (date of the meeting)], adopted the amendments to the International Code for the Construction and Equipment of Ships Carrying Liquefied Gases in Bulk (IGC Code), including the addition of "carbon dioxide" in the table in chapter 19.

2 The Committee, having considered the draft table prepared by the Sub-Committee on Bulk Liquids and Gases, at its eighth session (BLG 8/18, annex 10), of interpretation or application for ships carrying liquefied carbon dioxide in bulk as cargo in a dedicated trade from the requirements in the IGC Code, and agreed to the following table.

Paragraph	Interpretation or application
3.1.2	A single A-0 bulkhead is sufficient.
5.2.1.4	Electrical bonding of piping and tanks is not required.
5.6.4	Fusible elements in the emergency shutdown system are not required.
10	Certified safe electrical equipment is not required.
11	This entire chapter is not applicable.
12.1.9	Safe placing and safe construction of electric fan motors is not required.
12.1.11	Protection screens in vent ducts is not required.
13.6	Applicable will be paragraphs: .13 and .14.

3 Member Governments are invited to bring the above table to the attention of classification societies, shipowners and all other parties concerned.

ANNEX 9**DRAFT AMENDMENTS TO THE INTERNATIONAL CODE FOR THE
CONSTRUCTION AND EQUIPMENT OF SHIPS CARRYING LIQUEFIED GASES
IN BULK (IGC CODE)****CHAPTER 1****GENERAL****1.3 Definitions**

1 In paragraph 1.3.2, the words “regulation II-2/3.3 of the 1983 SOLAS amendments” are replaced by “SOLAS regulation II-2/3.2”.

2 Paragraph 1.3.34 is replaced by new paragraph 1.3.34 as follows:

“1.3.34 “SOLAS” means the International Convention for the Safety of Life at Sea, 1974, as amended.”.

CHAPTER 3**SHIP ARRANGEMENTS****3.3 Cargo pump-rooms and cargo compressor rooms**

3 In paragraph 3.3.1.1, the words “regulation II-2/58 of the 1983 SOLAS amendments” are replaced by “SOLAS regulation II-2/9.2.4”.

CHAPTER 11**FIRE PROTECTION AND FIRE EXTINCTION****11.1 Fire safety requirements**

4 In paragraph 11.1.1, the words “chapter II-2 of the 1983 SOLAS amendments” are replaced by “SOLAS chapter II-2”, and subparagraphs .1 to .3 are replaced by following new subparagraphs:

- “.1 regulations 4.5.1.6 and 4.5.10 do not apply;
- .2 regulation 10.2 as applicable to cargo ships and regulations 10.4 and 10.5 should apply as they would apply to tankers of 2,000 tons gross tonnage and over;
- .3 regulation 10.5.6 should apply to ships of 2,000 tons gross tonnage and over;

- .4 the following regulations of SOLAS chapter II-2 related to tankers do not apply and are replaced by chapters and sections of the Code as detailed below:

Regulation	Replaced by
10.10	11.6
4.5.1.1 and 4.5.1.2	chapter 3
4.5.5 and 10.8	11.3 and 11.4
10.9	11.5

- .5 regulations 13.3.4 and 13.4.3 should apply to ships of 500 tons gross tonnage and over.”.

11.2 Fire water main equipment

5 In paragraph 11.2.1, the words “regulations II-2/4 and II-2/7 of the 1983 SOLAS amendments” are replaced by “SOLAS regulations II-2/10.2, 10.4 and 10.5”, the words “regulations 4.2.1 and 4.4.1.” are replaced by “regulations II-2/10.2.2.4.1 and 10.2.1.3” and “regulation 4.4.2” is replaced by “regulation II-2/10.2.1.6”.

6 In paragraph 11.2.2, the words “regulations II-2/4.5.1 and II-2/4.8 of the 1983 SOLAS amendments, with hose lengths not exceeding 33 m” are replaced by “SOLAS regulations II-2/10.2.1.5.1 and 10.2.3.3, with hose lengths as specified in regulation II-2/10.2.3.1.1”.

11.5 Cargo compressor and pump-rooms

7 In paragraph 11.5.1, the words “regulation II-2/5.1 and .2 of the 1974 SOLAS Convention, as amended” are replaced by “SOLAS regulation II-2/10.9.1.1”, the words “regulation II-2/5.1.6 of the 1983 SOLAS amendments” are replaced by “SOLAS regulation II-2/10.9.1.1.1”.

8 In paragraph 11.6, the word in the heading “Firemen’s” is replaced by “Fire-fighter’s”.

9 In paragraph 11.6.1, the word “firemen’s” is replaced by “fire-fighter’s” and “regulation II-2/17 of the 1983 SOLAS amendments” are replaced by “SOLAS regulation II-2/10.10”.

CHAPTER 12

MECHANICAL VENTILATION IN THE CARGO AREA

10 The words after the heading “The requirements of this chapter should be substituted for regulation II-2/59.3 of the 1983 SOLAS amendments” are replaced by “The requirements of this chapter should be substituted for SOLAS regulations II-2/4.5.2.6 and 4.5.4”.

CHAPTER 19

SUMMARY OF MINIMUM REQUIREMENTS

11 Add the following product to the table in chapter 19:

a	b	c	d	e	f	g	h	i
Product name	UN number	Ship Type	Independent tank type C required	Control of vapour space within cargo tanks	Vapour detection	Gauging	MFAG table No.	Special requirements
Dimethyl ether	-	2G / 2PG	-	-	F+T	C	-	
Carbon Dioxide	-	3G	Yes	-	-	C	-	

ANNEX 10

**DRAFT AMENDMENTS TO THE CODE FOR THE CONSTRUCTION AND
EQUIPMENT OF SHIPS CARRYING LIQUEFIED GASES IN BULK (GC CODE)**

CHAPTER XI - FIRE PROTECTION AND FIRE EXTINGUISHING

11.1 Fire safety requirements

1 In paragraph 11.1, the following new paragraph 11.1.5 is added:

“11.1.5 The following requirements in SOLAS chapter II-2, as adopted by MSC.99(73), should apply:

- (a) regulations 13.3.4.2 to 13.3.4.5 and 13.4.3 should apply to ships of 500 tons gross tonnage and over;
- (b) regulations in Part E of chapter II-2 of SOLAS Convention except regulations 16.3.2.2 and 16.3.2.3 thereof, should apply to ships, regardless of their sizes;
- (c) where deep-fat cooking equipment is newly installed, regulation 10.6.4 should apply; and
- (d) fire-extinguishing systems using Halon 1211, 1301, and 2402 and perfluorocarbons should not be newly installed as prohibited by regulation 10.4.1.3.”.

CHAPTER XIX - SUMMARY OF MINIMUM REQUIREMENTS

2 Add the following new product to the table in chapter XIX:

a	b	c	d	e	f	g	h
Product name	UN number	Ship Type	Independent tank type C required	Control of vapour space within cargo tanks	Vapour detection	Gauging	Special requirements
Dimethyl ether	-	IIG / IIPG	-	-	I+T	C	
Carbon Dioxide	-	IIIG	Yes	-	-	C	

ANNEX 11**DRAFT AMENDMENTS TO THE INTERNATIONAL CODE FOR THE
CONSTRUCTION AND EQUIPMENT OF SHIPS CARRYING DANGEROUS
CHEMICALS IN BULK (2004 AMENDMENTS TO THE IBC CODE
(RESOLUTIONS MEPC.119(52) AND MSC.176(79))****CHAPTER 11****FIRE PROTECTION AND FIRE EXTINCTION****11.1 Application**

- 1 In paragraph 11.1.1, subparagraphs .4 to .6 are replaced by the following subparagraphs:
 - “.4 regulation 10.5.6 shall apply to ships of 2,000 tons gross tonnage and over;
 - .5 the provisions of 11.3 shall apply in lieu of regulation 10.8;
 - .6 the provisions of 11.2 shall apply in lieu of regulation 10.9;
 - .7 regulation 4.5.10 shall apply to ships of 500 tons gross tonnage and over, replacing “hydrocarbon gases” by “flammable vapours” in the regulation; and
 - .8 regulations 13.3.4 and 13.4.3 shall apply to ships of 500 tons gross tonnage and over.”.

- 2 In paragraph 11.1, the following new paragraph 11.1.4 is added:

“11.1.4 In lieu of the provisions of SOLAS regulation II-2/1.6.7, the requirements of regulations II-2/4.5.10.1.1 and 4.5.10.1.4 and a system for continuous monitoring of the concentration of flammable vapours shall be fitted on ships of 500 tons gross tonnage and over which were constructed before [the date of entry into force of the amendment] by the date of the first scheduled dry-docking after [the date of entry into force of the amendment], but not later than [3 years after the date of entry into force of the amendment]. Sampling points or detector heads should be located in suitable positions in order that potentially dangerous leakages are readily detected. When the flammable vapour concentration reaches a pre-set level which shall not be higher than 10% of the lower flammable limit, a continuous audible and visual alarm signal shall be automatically effected in the pump-room and cargo control room to alert personnel to the potential hazard. However, existing monitoring systems already fitted having a pre-set level not greater than 30% of the lower flammable limit may be accepted. Notwithstanding the above provisions, the Administration may exempt ships not engaged on international voyages from those requirements.”.

ANNEX 12**DRAFT MSC/MEPC CIRCULAR****EARLY APPLICATION OF THE AMENDMENTS TO THE FIRE PROTECTION
REQUIREMENTS OF THE REVISED IBC CODE**

1 The Marine Environment Protection Committee, at its fifty-second session (11 to 15 October 2004), and the Maritime Safety Committee, at its seventy-ninth session (1 to 10 December 2004), adopted amendments to the International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk (revised IBC Code) by resolutions MEPC.119(52) and MSC.176(79), respectively, which is expected to enter into force on 1 January 2007.

2 The Marine Environment Protection Committee, at its [fifty-third session (18 to 22 July 2005)] and the Maritime Safety Committee, at its [eighty-first session (date of session)], approved, in principle, the proposed amendments to the fire protection requirements of the aforementioned revised IBC Code, with a view to adoption by MEPC 56 and MSC 83.

3 Considering that early implementation of the proposed amendments would be of benefit to the industry and other interested parties, the Committees invite Contracting Governments to the 1974 SOLAS Convention and Parties to MARPOL 73/78 to:

- .1 apply the proposed amendments to the revised IBC Code, referred to in paragraph 2 above, to ships flying their flags on or after 1 January 2007, pending their formal entry-into-force; and
- .2 accept ships flying the flags of other States, constructed and equipped in accordance with the revised IBC Code and the aforementioned proposed amendments.

ANNEX 13**DRAFT MEPC RESOLUTION****GUIDELINES FOR BALLAST WATER EXCHANGE**

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 B-4 of the Annex to the Ballast Water Management Convention addresses the conditions under which ballast water exchange should be conducted, taking into account Guidelines developed by the Organization,

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

HAVING CONSIDERED the draft Guidelines for ballast water exchange developed by the Ballast Water Working Group and the recommendation made by the Sub-Committee on Bulk Liquids and Gases at its ninth session,

1. ADOPTS the Guidelines for ballast water exchange, 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 BALLAST WATER EXCHANGE (G6)

1 INTRODUCTION

1.1 The purpose of these guidelines is to provide shipowners and operators with general guidance on the development of ship specific procedures for conducting ballast water exchange. Whenever possible ship owner and operators should enlist the assistance of classification societies or qualified marine surveyors in tailoring ballast exchange practices for various conditions of weather, cargo and stability. The application of processes and procedures concerning ballast water management are at the core of the solution to prevent, minimize and ultimately eliminate the introduction of harmful aquatic organisms and pathogens. Ballast water exchange offers a means, when used in conjunction with good ballast water management practices, to assist in achieving this solution.

1.2 Ballast water exchange introduces a number of safety issues, which affect both the ship and its crew. These Guidelines are intended to provide guidance on the safety and operational aspects of ballast water exchange at sea.

1.3 Given that there are different types of ships, which may be required to undertake ballast water exchange at sea, it is impractical to provide specific guidelines for each ship type. Shipowners are cautioned that they should consider the many variables that apply to their ships. Some of these variables include type and size of ship, ballast tank configurations and associated pumping systems, trading routes and associated weather conditions, port State requirements and manning.

Application

1.4 The Guidelines apply to all those involved with ballast water exchange including, shipowners and operators, designers, classification societies and shipbuilders. Operational procedures and guidance reflecting the issues rose in these guidelines should be reflected in the ships ballast water management plan.

2 DEFINITIONS

2.1 For the purposes of these Guidelines, the definitions in the International Convention for the Control and Management of Ships' Ballast Water and Sediments (the Convention) apply and:

- .1 "Ballast Water Tank" – means any tank, hold, or space used for the carriage of ballast water.

3 RESPONSIBILITIES

3.1 Shipowners and operators should ensure, prior to undertaking ballast water exchange, that all the safety aspects associated with the ballast water exchange method or methods used onboard have been considered and that suitably trained personnel are onboard. A review of the safety aspects, the suitability of the exchange methods being used and the aspects of crew training should be undertaken at regular intervals.

3.2 The Ballast Water Management Plan is to include the duties of key shipboard control personnel undertaking ballast water exchange at sea. Such personnel should be fully conversant with the safety aspects of ballast water exchange and in particular the method of exchange used on board their ship and the particular safety aspects associated with the method used.

3.3 In accordance with regulation B-4.4 of the Convention if the master reasonably decides that to perform ballast water exchange would threaten the safety or stability of the ship, its crew or its passengers, because of adverse weather, the ship's design, stress, equipment failure, or any other extraordinary condition a ship shall not be required to comply with Regulations B-4.1 and B-4.2.

- .1 When a ship does not undertake ballast water exchange for the reasons stated in paragraph above, the reasons shall be entered in the Ballast Water Record Book.
- .2 The port or coastal State concerned may require that the discharge of ballast water must be in accordance with procedures determined by them taking into account the Guidelines for additional measures including emergency situations (G13).

4 BALLAST WATER EXCHANGE REQUIREMENTS

4.1 Exchange of ballast water in deep ocean areas or open seas offers a means of limiting the probability that harmful aquatic organisms and pathogens be transferred in ships ballast water.

4.2 Regulation D-1 of the Convention requires that:

- .1 ships performing ballast water exchange in accordance with this regulation shall do so with an efficiency of at least 95 percent volumetric exchange of ballast water; and
- .2 for ships exchanging ballast water by the pumping-through method, pumping through three times the volume of each ballast water tank shall be considered to meet the standard described in paragraph 1. Pumping through less than three times the volume may be accepted provided the ship can demonstrate that at least 95 percent volumetric exchange is met.

4.3 There are three methods of Ballast Water exchange which have been evaluated and accepted by the Organization. The three methods are the sequential method, the flow-through method and the dilution method. The flow-through method and the dilution method are considered as 'pump through' methods.

4.4 The three accepted methods can be described as follows:

Sequential method – a process by which a ballast tank intended for the carriage of ballast water is first emptied and then refilled with replacement ballast water to achieve at least a 95 percent volumetric exchange.

Flow-through method – a process by which replacement ballast water is pumped into a ballast tank intended for the carriage of ballast water, allowing water to flow through overflow or other arrangements.

Dilution method – a process by which replacement ballast water is filled through the top of the ballast tank intended for the carriage of ballast water with simultaneous discharge from the bottom at the same flow rate and maintaining a constant level in the tank throughout the ballast exchange operation.

5 SAFETY PRECAUTIONS ASSOCIATED WITH BALLAST WATER EXCHANGE

5.1 Three methods of carrying out ballast water exchange at sea have been identified as acceptable by the Organization. Each has particular safety aspects associated with it that should be considered when selecting the method(s) to be used on a particular ship.

5.2 When identifying the ballast water exchange method(s) for the first time for a particular ship, an evaluation should be made which should include:

- .1 the safety margins for stability and strength contained in allowable seagoing conditions, as specified in the approved trim and stability booklet and the loading manual relevant to individual types of ships. Account should also be taken of the loading conditions and the envisaged ballast water exchange method or methods to be used;
- .2 the ballast pumping and piping system taking account of the number of ballast pumps and their capacities, size and arrangements of ballast water tanks; and
- .3 the availability and capacity of tank vents and overflow arrangements, for the flow through method, the availability and capacity of tank overflow points, prevention of under and over pressurization of the ballast tanks.

5.3 Particular account should be taken of the following:

- .1 stability which is to be maintained at all times and not less than those values recommended by the Organization or required by the Administration;
- .2 longitudinal stress, and where applicable torsional stress values, not to exceed permitted values with regard to prevailing sea conditions;
- .3 exchange of ballast in tanks where significant structural loads may be generated by sloshing action in the partially filled tank to be carried out in favourable sea and swell conditions such that the risk of structural damage is minimized;
- .4 wave-induced hull vibrations when carrying out ballast water exchange;
- .5 limitations of the available methods of ballast water exchange in respect of sea and weather conditions;
- .6 forward and aft draughts and trim, with particular reference to bridge visibility, slamming, propeller immersion and minimum forward draft; and
- .7 additional work loads on the master and crew.

5.4 Having undertaken an evaluation for a particular ship and the exchange method or methods to be used, the ship should be provided with procedures, advice and information appropriate to the exchange method(s) identified and ship type in the Ballast Water Management Plan.

- .1 The procedures, advice, and information in the Ballast Water Management Plan, may include but is not limited to the following:
 - .1 avoidance of over and under-pressurization of ballast tanks;
 - .2 free surface effects on stability and sloshing loads in tanks that may be slack at any one time;
 - .3 maintain adequate intact stability in accordance with an approved trim and stability booklet;
 - .4 permissible seagoing strength limits of shear forces and bending moments in accordance with an approved loading manual;
 - .5 torsional forces;
 - .6 forward and aft draughts and trim, with particular reference to bridge visibility, propeller immersion and minimum forward draft;
 - .7 wave-induced hull vibrations when performing ballast water exchange;
 - .8 watertight and weathertight closures (e.g. manholes) which may have to be opened during ballast exchange must be re-secured;
 - .9 maximum pumping/flow rates – to ensure the tank is not subjected to a pressure greater than that for which it has been designed;
 - .10 internal transfers of ballast;
 - .11 admissible weather conditions;
 - .12 weather routeing in areas seasonably affected by cyclones, typhoons, hurricanes, or heavy icing conditions;
 - .13 documented records of ballasting and/or de-ballasting and/or internal transfers of ballast;
 - .14 contingency procedures for situations which may affect ballast water exchange at sea, including deteriorating weather conditions, pump failure and loss of power;
 - .15 time to complete the ballast water exchange for each tank or an appropriate sequence thereof;

- .16 continual monitoring of the ballast water operation; monitoring should include pumps, levels in tanks, line and pump pressures, stability and stresses;
- .17 a list of circumstances in which ballast water exchange should not be undertaken. These circumstances may result from critical situations of an exceptional nature or *force majeure* due to stress of weather, known equipment failures or defects, or any other circumstances in which human life or safety of the ship is threatened;
- .18 ballast water exchange at sea should be avoided in freezing weather conditions. However, when it is deemed absolutely necessary, particular attention should be paid to the hazards associated with the freezing of overboard discharge arrangements, air pipes, ballast system valves together with their means of control, and the build up of ice on deck; and
- .19 personnel safety, including precautions which may be required when personnel are required to work on deck at night, in heavy weather, when ballast water overflows the deck, and in freezing conditions. These concerns may be related to the risks to the personnel of falling and injury, due to the slippery wet surface of the deck plate, when water is overflowing on deck, and to the direct contact with the ballast water, in terms of occupational health and safety.

5.6 During ballast water exchange sequences there may be times when, for a transitory period, one or more of the following criteria cannot be fully met or are found to be difficult to maintain:

- i) bridge visibility standards (SOLAS V/22);
- ii) propeller immersion; and
- iii) minimum draft forward.

.1 As the choice of acceptable ballast water exchange sequences is limited for most ships, it is not always practicable to dismiss from consideration those sequences where transitory non-compliance may occur. The practical alternative would be to accept such sequences provided an appropriate note is placed in the Ballast Water Management Plan to alert the ship's master. The note would advise the master of the nature of the transitory non-compliance, that additional planning may be required and that adequate precautions need to be taken when using such sequences.

.2 In planning a ballast water exchange operation that includes sequences which involve periods when the criteria for propeller immersion, minimum draft and / or trim and bridge visibility cannot be met, the Master should assess:

- (i) the duration(s) and time(s) during the operation that any of the criteria will not be met;

- (ii) the effect(s) on the navigational and maneuvering capabilities of the ship;
and
 - (iii) the time to complete the operation.
- .3 A decision to proceed with the operation should only be taken when it is anticipated that:
- (i) the ship will be in open water;
 - (ii) the traffic density will be low;
 - (iii) an enhanced navigational watch will be maintained including if necessary an additional look out forward with adequate communications with the navigation bridge;
 - (iv) the manoeuvrability of the vessel will not be unduly impaired by the draft and trim and or propeller immersion during the transitory period; and
 - (v) the general weather and sea state conditions will be suitable and unlikely to deteriorate.

5.7 On oil tankers, segregated ballast and clean ballast may be discharged below the water line at sea by pumps if the ballast water exchange is performed under the provisions of Regulation D-1.1 of the International Convention for the Control and Management of Ships' Ballast Water and Sediments, provided that the surface of the ballast water has been examined either visually or by other means immediately before the discharge to ensure that no contamination with oil has taken place.

6 CREW TRAINING AND FAMILIARIZATION

6.1 Appropriate training for ships' masters and crews should include instructions on the safety issues associated with ballast water exchange based upon the information contained in these Guidelines. Instruction should be provided on the ships' Ballast Water Management Plan including the completion of required records.

6.2 Ships' officers and crew engaged in Ballast Water exchange at sea should be trained in and be familiar with the following as appropriate:

- .1 the ship's ballast pumping and piping arrangements, positions of associated air and sounding pipes, positions of all compartment and tank suction and pipelines connecting them to ship's ballast pumps and, in the case of use of the flow through method of ballast water exchange, the openings used for release of water from the top of the tank together with overboard discharge arrangements;
- .2 the method of ensuring that sounding pipes are clear, and that air pipes and their non-return devices are in good order;
- .3 the different times required to undertake the various ballast water exchange operations including the time to complete individual tanks;

- .4 the method(s) in use for ballast water exchange at sea if applicable with particular reference to required safety precautions; and
- .5 the need to continually monitor ballast water exchange operations.

7 FUTURE CONSIDERATIONS IN RELATION TO BALLAST WATER EXCHANGE

7.1 These Guidelines may be revised and updated in the light of possible technical evolutions with the ballast water exchange methods and of new ballast water management options.

ANNEX 14**DRAFT MEPC RESOLUTION****GUIDELINES FOR BALLAST WATER MANAGEMENT EQUIVALENT COMPLIANCE**

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-5 of the Annex to the Ballast Water Management Convention provides that equivalent compliance with its provisions for pleasure craft used solely for recreation or competition or craft used primarily for search and rescue, less than 50 metres in length overall, and with a maximum Ballast Water capacity of 8 cubic metres, shall be determined by the Administration taking into account Guidelines developed by the Organization,

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

HAVING CONSIDERED the draft Guidelines for ballast water management equivalent compliance developed by the Ballast Water Working Group and the recommendation made by the Sub-Committee on Bulk Liquids and Gases at its ninth session,

1. ADOPTS the Guidelines for ballast water management equivalent compliance, 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 BALLAST WATER MANAGEMENT

EQUIVALENT COMPLIANCE (G3)

1 Administrations shall take these Guidelines into account in determining whether ships satisfy the requirements of *Regulation A-5, Equivalent compliance* of the International Convention for the Control and Management of Ships' Ballast Water and Sediments, 2004. Ships subject to these Guidelines should, insofar as practicable, comply with the Convention, and if that is not practicable, shall achieve equivalent compliance in accordance with Regulation A-5 and these Guidelines.

Definitions

2 For the purpose of these Guidelines the definitions in the Convention apply.

Application

3 These Guidelines apply to pleasure craft used solely for recreation or competition or craft used primarily for search and rescue less than 50 metres in overall length and with a maximum ballast water capacity of eight cubic metres. Overall length means the length of the hull excluding bowsprits, booms, bumpkins, pulpits, etc.

Exceptions

4 These Guidelines do not apply to the uptake or discharge of Ballast Water and Sediments:

- .1 necessary for the purpose of ensuring the safety of a ship in emergency situations or saving life at sea;
- .2 when being used for the purpose of avoiding or minimizing pollution incidents from the ship; and
- .3 on the high seas of the same Ballast Water and Sediments.

5 In addition, these Guidelines do not apply to:

- .1 the accidental discharge or ingress of Ballast Water and Sediments resulting from damage to a ship or its equipment provided that all reasonable precautions have been taken before and after the occurrence of the damage or discovery of the damage or discharge for the purpose of preventing or minimizing the discharge and the owner or the person in charge did not wilfully cause such damage;
- .2 the discharge of Ballast Water and Sediments from a ship at the same location where the whole of that Ballast Water and those Sediments originated provided that no mixing with unmanaged Ballast Water from other areas has occurred. In the context of these Guidelines, "same location" shall be taken to mean the same harbour, mooring or anchorage; and

- .3 the discharge of Ballast Water and Sediments if the master reasonably decides that compliance with these guidelines would threaten the safety or stability of the ship, its crew, or its passengers because of adverse weather, ship design or stress, equipment failure, or any other extraordinary condition.

Precautionary Practices to minimize the uptake or transfer of Harmful Aquatic Organisms and Pathogens

Uptake of Ballast Water

6 Wherever possible, ballast water should be taken up outside of port waters and as far from the coast as practicable. In addition, consideration should be given to the use of dockside water supplies (e.g. water not taken directly from the harbour; such as fresh water, potable water, etc.) as the source for ballast water.

7 When loading Ballast Water, every effort should be made to avoid the uptake of potentially harmful aquatic organisms, pathogens and sediments that may contain such organisms. The uptake of ballast water should be minimized or, where practicable, avoided in areas and situations such as:

- .1 in areas identified by the Port State in connection with warnings provided by ports concerning ballast uptake and any other port contingency arrangements in the event of emergency situations;
- .2 in darkness when organisms may rise up in the water column;
- .3 in very shallow water;
- .4 where propellers may stir up sediment;
- .5 areas with current large phytoplankton blooms (algal blooms, such as red tides);
- .6 nearby sewage outfalls;
- .7 where a tidal stream is known to be more turbid;
- .8 where tidal flushing is known to be poor; or
- .9 in areas close to aquaculture.

8 If it is necessary to take on and discharge Ballast Water in the same location, care should be taken to avoid unnecessary discharge of Ballast Water that has been taken up in another location.

Discharge of Ballast Water

9 To prevent, minimize and ultimately eliminate the transfer of Harmful Aquatic Organisms and Pathogens to the maximum extent practicable taking into account the nature of the ship Ballast Water should either be exchanged prior to discharge in accordance with Regulation B-4 or otherwise managed in accordance with the requirements of the Administration. Any chemical treatment shall only use Active Substances approved by the Organization pursuant to Regulation D-3 of the Convention.

Sediment Control

10 Where practicable, routine cleaning of the ballast tank to remove sediments should be carried out under controlled arrangements, and suitable arrangements made for the environmentally sound disposal of any resulting sediments.

Compliance with other guidelines

11 Nothing in these Guidelines shall prevent a ship to which these Guidelines apply from using any method of Ballast Water Management approved under any other Guidelines issued by the Organization. If suitable new and emergent treatments and technologies prove viable, these should be evaluated with a view to be incorporated, as appropriate, into these Guidelines.

ANNEX 15

**DRAFT AMENDMENT TO REGULATION 21 OF THE REVISED
MARPOL ANNEX I**

Regulation 21 – Prevention of oil pollution from oil tankers carrying heavy grade oil as cargo

The text of existing paragraph 2.2 of the regulation is replaced by the following:

“oils, other than crude oils, having either a density at 15°C higher than 900 kg/m³ or a kinematic viscosity at 50°C higher than 180 mm²/s; or”

ANNEX 16

**DRAFT UNIFIED INTERPRETATION FOR REGULATION 13H(2) OF
THE CURRENT MARPOL ANNEX I**

A new Unified Interpretation 4.14 is added as follows:

“Reg. 13H(2) 4.14 *Definition of “heavy grade oil”*

4.14.1 The reference to “fuel oils” in the definition of “heavy grade oil” in regulation 13H(2) should be interpreted as referring to oils, other than crude oils, having either a density at 15°C higher than 900 kg/m³ or a kinematic viscosity at 50°C greater than 180 mm²/s.”

ANNEX 17**DRAFT MEPC RESOLUTION****GUIDELINES FOR THE APPLICATION OF THE REVISED MARPOL ANNEX I REQUIREMENTS TO FLOATING PRODUCTION, STORAGE AND OFFLOADING FACILITIES (FPSOs) AND FLOATING STORAGE UNITS (FSUs)**

THE MARINE ENVIRONMENT PROTECTION COMMITTEE,

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

NOTING that, at its forty-ninth session, the Committee approved the Guidelines for the application of MARPOL Annex I requirements for FPSOs and FSUs which were issued as MEPC/Circ.406 on 10 November 2003,

NOTING ALSO that, at the same session, the Committee recognized that similar guidelines would be needed for the revised MARPOL Annex I and instructed the Secretariat to prepare a draft MEPC resolution for the application of the revised MARPOL Annex I requirements to FPSOs and FSUs,

BEING AWARE that the revised MARPOL Annex I was adopted by resolution MEPC.117(52) and is expected to enter into force on 1 January 2007,

HAVING CONSIDERED, at its fifty-third session, the recommendation submitted by the Sub-Committee on Bulk Liquids and Gases to adopt the revised Guidelines, as adapted to the layout and numbering of the revised MARPOL Annex I,

1. ADOPTS the Guidelines for the application of the revised MARPOL Annex I requirements to FPSOs and FSUs, the text of which is set out in the annex to this resolution; and
2. INVITES Governments to apply the Guidelines as soon as the revised Annex I enters into force.

ANNEX

**GUIDELINES FOR THE APPLICATION OF THE REVISED MARPOL ANNEX I
REQUIREMENTS TO FPSOs AND FSUs**

1 The Marine Environment Protection Committee, at its forty-ninth session (14 to 18 July 2003), recognizing the necessity to provide appropriate guidance for the application of MARPOL Annex I requirements to floating production, storage and offloading facilities (FPSOs) used for the offshore production and storage of oil, and floating storage units (FSUs) used for the offshore storage of produced oil, approved the Guidelines for application of MARPOL Annex I requirements to FPSOs and FSUs. The Guidelines were issued as MEPC/Circ.406 on 10 November 2003.

2 The Committee, recognizing that similar guidelines would be needed for the revised MARPOL Annex I, agreed to their adaptation to the new layout and numbering system of the revised MARPOL Annex I. Thus these Guidelines are intended to replace the Guidelines issued as MEPC/Circ.406 and it is recommended that contracting Governments give effect to their provisions as soon as the revised MARPOL Annex I enters into force.

3 The purpose of these Guidelines is to provide for uniform application of the revised MARPOL Annex I adopted by resolution MEPC117(52) to Floating Production, Storage and Offloading facilities (FPSOs) and Floating Storage Units (FSUs) that are used for the offshore production and storage or for offshore storage of produced oil.

4 The Marine Environment Protection Committee, at its forty-ninth session (14 to 18 July 2003), noted the complex issues involved in applying the requirements of MARPOL Annex I to FPSOs and FSUs, whose arrangements, functions and operations fall under the over-riding control of coastal States.

5 In addition, the Committee found that the role of FPSOs and FSUs in operation does not include transport of oil. Accordingly, FPSOs and FSUs are a form of floating platform and do not lie within the definition of *oil tanker* in regulation 1.5 of the revised MARPOL Annex I. They are therefore subject to the provisions of the revised Annex I that relate to fixed and floating platforms, including regulation 39.

6 The Committee noted that the environmental hazards associated with the quantities of produced oil stored on board operational FPSOs and FSUs are similar to some of the hazards related to oil tankers and that relevant requirements of the revised MARPOL Annex I in relation to *oil tankers* could be adapted to address those hazards in an appropriate manner. Based on the above and recognizing that these floating platforms are stationary when operating, the Committee recommends that coastal States, flag States and others associated with the design, construction and operation of FPSOs and FSUs apply the relevant revised MARPOL Annex I regulations referred to in annex 1 to the Guidelines. References contained in annex 1 relate to the revised MARPOL Annex I up to and including the amendments contained in resolution MEPC.117(52).

7 This circular has been prepared with a view to providing the necessary guidance and interpretation information which may be specifically applicable to FPSOs and FSUs, and accordingly represents a single document describing the application of the revised MARPOL Annex I to these floating platforms.

8 The provisions of these Guidelines are for application to FPSOs and FSUs when located at their operating station. However they also take into account the abnormal and rare circumstances of:

- .1 voyages for drydocking, repair or maintenance work; or
- .2 disconnection of the platform in extreme environmental or emergency conditions.

In either case, the FPSO/FSU should not transport oil to a port or terminal except with the specific agreement of the flag and relevant coastal States, obtained on a voyage basis. When undertaking any voyage away from the operating station, for whatever purpose, FPSOs and FSUs will be required to comply with the discharge provisions of the revised MARPOL Annex I for *oil tankers*.

9 In order to avoid development of an entire new text from the revised MARPOL Annex I attending to such terminology matters and notwithstanding the basis for these Guidelines outlined above, in any regulation indicated to apply to FPSOs and FSUs by the Guidelines at annex, the following interpretation of terminology should be used:

- .1 “oil tanker” should be read as “FPSO or FSU”;
- .2 “carry” should be read as “hold”;
- .3 “cargo” should be read as “produced oil and oily mixtures”; and
- .4 “voyage” should be read to include “operations”.

10 Oil tanker requirements that are extended by the Guidelines to apply to FPSOs/FSUs are identified through the phrase “recommend application” or similar, while “applies” is used for requirements to be implemented irrespective of the contents of this circular.

11 The requirement for oil tankers to undergo the enhanced survey programme (resolution A.744(18)) was deleted from regulation 13G of MARPOL Annex I by resolution MEPC.95(46) and its provisions have subsequently been solely given effect through chapter XI-I of SOLAS. Since SOLAS does not apply to the vast majority of FPSOs and FSUs, which are permanently moored at their operating stations, the relevant oil tanker requirements of resolution A.744(18) have been included as one of the provisions of the Guidelines in order to ensure a satisfactory standard of structural integrity for FPSOs and FSUs. Reflecting the operational characteristics of FPSOs and FSUs, the Guidelines also make provision for limited departure from A.744(18) in respect of acceptance of in-water surveys under conditions which do not compromise safety and pollution prevention.

12 In implementing the provisions of these Guidelines, Member Governments are invited to use and recognize the Record of Construction and Equipment for FPSOs and FSUs at annex 2 in place of Forms A and B appended to the revised MARPOL Annex I.

13 The Committee noted that most operations of FPSOs and FSUs are different from other ships covered by Annex I and, recognizing that the coastal State has jurisdiction over fixed and floating platforms operating in waters under its jurisdiction, Member Governments may find it necessary to depart from the provisions of these Guidelines. Accordingly, the Committee invites Member Governments to advise the Organization of their experience in applying these Guidelines so that it can be taken into account if future amendments to these Guidelines are deemed necessary.

ANNEX 1

**RECOMMENDED PROVISIONS OF THE REVISED MARPOL ANNEX I FOR
APPLICATION TO FPSOs AND FSUs**

Article	Subject	Basis of Application
Art. 2(3)(b)(ii)	Def. <i>Discharge</i>	In accordance with Reg. 39 and UI 50, produced water, offshore processing drainage and displacement water are not included in the meaning of <i>discharge</i> .
Art. 2(4)	Def. <i>Ship</i>	FPSOs/FSUs are “fixed or floating platforms” and are therefore included in this definition.

Regulation	Subject	Basis of Application
1.1 to 1.4	Defs. <i>Oil, Crude Oil, Oily mixture, Oil fuel</i>	Applies.
1.5	Def. <i>Oil tanker</i>	FPSOs/FSUs are adapted primarily for a purpose other than to carry (transport) oil and are therefore excluded from this definition.
1.6 and 1.7	Defs. <i>Crude Oil tanker, Products carrier</i>	Not applicable.
1.8	Def. <i>Combi.carrier</i>	Not applicable for same reasons as 1.5.
1.9	Def. <i>Major conversion</i>	Conversion of an <i>oil tanker</i> or <i>combination carrier</i> to an FPSO/FSU and <i>vice versa</i> should be considered to be a <i>major conversion</i> . Alterations or modifications required for an existing FPSO/FSU to move to another field should not be considered a <i>major conversion</i> .
1.10 and 1.11	Defs. <i>Nearest land, Special area</i>	Apply.
1.12	Def. <i>Instantaneous rate of discharge of oil</i>	Not applicable to FPSO/FSU at operating station as this definition applies when the ship is under way (refer regs. 34.1.4 and 31.2, 31.3 and 36.6).
1.13 to 1.26	Defs. <i>Various</i>	Apply.
1.27	Def. <i>Anniversary date</i>	Applies.
1.28.1 and 1.28.2	Defs. <i>Ship age groups</i>	Apply.
1.28.3 to 1.28.8	Defs. <i>Oil tanker age groups</i>	Not applicable.
1.29	Def. <i>ppm</i>	Applies.
2.1	Application	Applies.
2.2 and 2.3	Application	Not applicable as the scope of application of these Guidelines is for FPSOs and FSUs when located at their normal operational station, including where appropriate temporary disconnection from the riser at the operating station for the minimum period necessary to ensure the safety of the vessel in extreme environmental or emergency conditions.

Regulation	Subject	Basis of Application
2.4	Application	Not applicable.
2.5 and 2.6	Existing tankers engaged in specific trades	Not applicable.
3.1 to 3.3	Exemptions and waivers	Any Administration using this clause in relation to FPSOs/FSUs would need to justify such use in relation to the terms of paragraph .1 and in accordance with the requirements of paragraph .3.
3.4 and 3.5	Exemptions and waivers	Recommend application in order to sanction the waiver arrangements outlined in 3.1.2, eg. for operations within special areas (3.5.2.1) in compliance with 3.5.2.3 to 3.5.2.6. Transfer of oily mixtures to offload tankers for discharge ashore is acceptable within this waiver.
4	Exceptions	Applies.
5	Equivalents	Applies.
6	Surveys and inspections	Applies. Notwithstanding whether SOLAS'74 applies to an FPSO/FSU, surveys of FPSOs and FSUs should be conducted to the standard specified for <i>oil tankers</i> in SOLAS'74 regulation 11-2, except for the provisions of 2.2 of Annex B to resolution A.744(18) as amended in relation to dry-dock survey. The coastal and flag States may accept bottom survey of the ship afloat instead of in dry-dock when the conditions are satisfactory and the proper equipment and suitably qualified personnel are available.
7	Issue of certificate	IOPP Certificate should be issued unless flag and coastal States have other means of certificating/documenting compliance.
8	Issue of certificate by another Government	Applicable.
9	Form of certificate	Applicable. When completing the IOPP certificate, FPSOs'/FSUs' "type of ship" should be shown as "ship other than any of the above" and this entry should be annotated with "FPSO" or "FSU" together with details of operational location. Record of Construction and Equipment for FPSOs and FSUs given at Annex 2 should be used for the IOPP Supplement. Where this is done Form A or Form B required by the Convention need not be provided.
10	Duration of certificate	Applicable.
11	Port State control on operational requirements	Applies to FPSO/FSU at its operating station, recognizing that under Art. 2(5) and UNCLOS Arts. 56 and 60, the coastal State exercises sovereign rights for the purposes of exploration and exploitation of their natural resources. However, port State control powers are applicable at other times such as if the FPSO/FSU voyages to a port in another State for maintenance purposes.
12	Tanks for oil residues (sludge)	Applicable.
13	Standard discharge connection	Applicable.

Regulation	Subject	Basis of Application
14	Oil filtering equipment	Applicable subject to applicable provisions of Reg. 15 and 34. For reasons of practicality, the equipment need not be fitted provided the machinery space discharges are disposed of in accordance with options a, b, d or e in relation to regulation 15.2. A waiver may be issued under 14.5.3, where all oily mixtures are discharged either ashore or into production stream.
15A	Discharges outside special areas	In accordance with Reg. 39 and UI 50, applies only to machinery space discharges and contaminated sea water from operational purposes such as produced oil tank cleaning water, produced oil tank hydrostatic testing water, water from ballasting of produced oil tank to carry out inspection by rafting. Since FPSOs/FSUs and other fixed and floating platforms cannot comply with 15.2.1 when operating on station then these oils and oily mixtures may, with the agreement of the coastal State: <ul style="list-style-type: none"> a. be sent ashore; b. be incinerated; c. have water separated and discharged if not exceeding 15ppm oil content under 34.2; d. be discharged in accordance with this clause subject to waiver of the <i>en route</i> requirement; e. be added to the production stream; or f. be treated using a combination of these methods.
15B	Discharges in special areas	Applicable, but FPSOs/FSUs cannot comply with 15.3.1 when operating on station. This requirement should be handled consistent with 15A above. Coastal State may issue dispensation from 15.3.1 where satisfied that this dispensation does not prejudice the environment.
15C and 15D	Requirements for ships <400GT and general req.	Applies.
16.1, 16.2 and 16.4	Segregation of oil and water ballast and carriage of oil in forepeak tanks	Applies. The principles of 16.3 should be extended to all other FPSOs and FSUs.
16.3	"	Applies to FPSOs/FSUs which are capable of disconnecting from the riser at the operating station as collision bulkhead requirement is in SOLAS rather than MARPOL. This principle is also relevant to stern collision as per 19.7.
17	Oil Record Book Part I	Applies.
18.1 to 18.9	Segregated ballast tanks	Recommend application subject to the conditions listed for 18.2 and 18.3.
18.2	"	Not applicable, but FPSO/FSU should have sufficient ballast capacity to meet stability and strength requirements in design and operational conditions of loading.

Regulation	Subject	Basis of Application
18.3	"	Recommend application noting that there should normally be separation between ballast and produced oil (crude) tanks and pumping systems, but temporary cross-connection may be permitted for the duration of transfer operations. In such exceptional cases where sea water is introduced into produced oil tanks for the operational purposes listed above in relation to 15.2, it should be dealt with as provided for under that clause.
18.8.1 to 18.8.4	Requirements for oil tankers with dedicated clean ballast tanks	Recommend application similar to 18.1 to 18.9.
18.10.1	Existing oil tankers having special ballast arrangements	Recommend application to meet 18.2 and 18.3 as modified by these Guidelines.
18.10.2	"	Recommended application consistent with 18.3 and 35.2 as modified by these Guidelines.
18.10.3	"	Not applicable.
18.11	SBT for oil tankers >=70,000DWT delivered after 31.12.79	Recommend application subject to the conditions listed for 18.2 and 18.3.
18.12 to 18.15	Protective location of segregated ballast spaces	Not applicable. Refer 19.3.1 for corresponding provisions in relation to both new purpose-built FPSOs/FSUs and other non-purpose-built FPSOs/FSUs.
19	Double hull and double bottom requirements for oil tankers delivered on or after 6.07.96	Not applicable, except as detailed below.
19.3.1 and 19.3.6	"	Recommend application to new purpose-built FPSOs/FSUs so as to provide protection against relatively low-energy collision. (NOTE: Appropriate measures should also be taken for other FPSOs/FSUs to address this collision hazard).
19.5	"	Applicable to the extent that the Guidelines referred to can be used to demonstrate equivalency with 19.3.1 and 19.3.6 as modified above.
19.7	"	Recommend application to new construction purpose built FPSOs/FSUs and other FPSOs/FSUs which are arranged with a fore peak or collision bulkhead. Similarly, oil should not be held in integral tanks located at the stern in FPSOs/FSUs which may offload to a tanker moored astern or alongside of the FPSO/FSU.
19.8	"	Recommend application to new construction purpose built FPSOs/FSUs and other FPSOs/FSUs which may be modified to meet this regulation.

Regulation	Subject	Basis of Application
20 (as amended by resolution MEPC.111(50))	Double hull and double bottom requirements for oil tankers delivered before 6.07.96	Not applicable.
21	Prevention of pollution from oil tankers carrying heavy grade oil as cargo	Not applicable.
22	Pump-room bottom protection	Not applicable.
23	Accidental oil outflow performance	Not applicable.
24	Damage assumptions	Recommend application with regard to side damage only. It is recommended that protective measures, such as fendering, be used to minimize side impact damage such as that which might be experienced during offloading and supply vessel berthing operations. Such protection, however, should not be considered to reduce the minimum transverse extent of side penetration damage.
25	Hypothetical outflow of oil	Recommend application for side damages only in accordance with 24 above.
26	Limitation of size and arrangement of cargo tanks	Recommend application based on 24 and 25 above.
27	Intact stability	Recommend application.
28.1 to 28.5	Subdivision and damage stability	Recommend application only in respect of side damage in accordance with 24 above.
28.6	Damage assumptions for oil tankers $\geq 20,000$ DWT delivered on or after 6.07.96	Not applicable.
29	Slop tanks	Applies.
30.1	Pumping, piping and discharge arrangement	Applies, except that manifold is to be provided in at least one position on the FPSO/FSU.
30.2	"	Not applicable for FPSOs.
30.3 to 30.7	"	Recommend application, particularly for management of contaminated sea as per Reg.18.3.
31	Oil discharge monitoring and control system	Applies only to tank cleanings and contaminated sea water (refer Art. 2(3)(b)(ii), Reg. 39 and UI 50) and should be read in light of Reg. 34. Not required where all oily mixtures are discharged to shore.

Regulation	Subject	Basis of Application
32	Oil/water interface detector	Applies only to tank cleanings and contaminated sea water (refer Art. 2(3)(b)(ii), Reg. 39 and UI 50) and should be read in light of Reg. 34. Not required where all oily mixtures are discharged to shore.
33	Crude oil washing requirements	COW system should be fitted unless produced oil characteristics are not suitable for COW.
34	Control of discharge of oil	Applicable as detailed below.
34.1	Discharges outside special areas	Recommended application whenever the FPSO/FSU is not at its operating station.
34.2	"	Applies.
34.3 to 34.5	Discharges in special areas	Applies.
34.6	Oil tankers <150GT	Recommend application if FPSO/FSU is less than 150GT.
34.7 to 34.9	General requirements	Applies.
35	Crude oil washing operations	Recommended application to any produced oil tanks used for water ballast as water ballast is subject to different discharge requirements than produced water. COW O&E Manual is to be provided for any COW system fitted.
36	Oil Record Book Part II	Part II should be applied in principle as part of oil production management system when on station, noting that this function must be complied with on voyage.
37	SOPEP	Applies in respect of SOPEP. However, contingency plan in accordance with requirements of OPRC Art 3(2) may be accepted under UI 48 as meeting this requirement. In such cases a separate SOPEP in accordance with the MARPOL format is not required. This acceptance of the contingency plan does not apply to a disconnectable FPSO/FSU unless that plan remains applicable when the FPSO/FSU is not connected to the riser.
38	Reception facilities	FPSOs/FSUs should not be considered as offshore terminals and should not receive dirty ballast or slops from offload tankers.
39	Special requirements for fixed or floating platforms	Applies subject to UI 50.

ANNEX 2

RECORD OF CONSTRUCTION AND EQUIPMENT FOR FPSOs AND FSUs

In respect of the provisions of resolution MEPC....(53) “Guidelines for application of the revised MARPOL Annex I¹ requirements to FPSOs and FSUs”, hereafter referred to as the “Guidelines”.

Notes:

- 1 This form should be used for Floating Production Storage and Offloading facilities (FPSOs) and Floating Storage Units (FSUs) to which regulation 39 of the revised Annex I of the Convention applies.
- 2 This Record should be permanently attached to the IOPP Certificate. The IOPP Certificate should be available on board the ship at all times.
- 3 If the language of the original Record is neither English nor French nor Spanish, the text should include a translation into one of these languages.
- 4 Entries in boxes shall be made by inserting either a cross (x) for the answers "yes" and "applicable" or a dash (-) for the answers "no" and "not applicable" as appropriate.
- 5 Unless otherwise stated, regulations mentioned in this Record refer to regulations of the revised Annex I of the Convention as implemented under the Guidelines and resolutions refer to those adopted by the International Maritime Organization.

1. Particulars of ship

- 1.1 Name of ship
- 1.2 Distinctive number or letters
- 1.3 IMO number (if applicable)
- 1.4 Port of registry (if applicable)
- 1.5 Gross tonnage (if applicable)
- 1.6 Produced liquids holding capacity of ship (m³)
- 1.7 Deadweight of ship (tonnes) (regulation 1.23)
- 1.8 Length of ship (m) (regulation 1.19)
- 1.9 Operating station (lat/long)
- 1.10 Coastal State

¹ Annex I of International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto, hereafter referred to as the “Convention”.

- 1.11 Date of build:
 - 1.11.1 Date of building contract
 - 1.11.2 Date on which keel was laid or ship was at a similar stage of construction
 - 1.11.3 Date of delivery
- 1.12 Conversion to FPSO/FSU (if applicable):
 - 1.12.1 Date of conversion contract
 - 1.12.2 Date on which conversion was commenced

2. Equipment for the control of oil discharge from machinery space bilges and oil fuel tanks (regulations 14, 15 and 34)

- 2.1 Carriage of ballast water in oil fuel tanks:
 - 2.1.1 The ship may under normal conditions carry ballast water in oil fuel tanks
- 2.2 Type of oil filtering equipment fitted:
 - 2.2.1 Oil filtering (15 ppm) equipment (regulation 14.6)
 - 2.2.2 Oil filtering (15 ppm) equipment with alarm and automatic stopping device (regulation 14.7)
- 2.3 Approval standards: *
 - 2.3.1 The separating/filtering equipment:
 - .1 has been approved in accordance with resolution A.393(X);
 - .2 has been approved in accordance with resolution MEPC.60(33);
 - .3 has been approved in accordance with resolution MEPC.107(49);
 - .4 has been approved in accordance with resolution A.233(VII);
 - .5 has been approved in accordance with national standards not based upon resolutions A.393(X) or A.233(VII);
 - .6 has not been approved;
 - 2.3.2 The process unit has been approved in accordance with resolution A.444(XI)

* Refer to the Recommendation on international performance and test specifications of oily-water separating equipment and oil content meters adopted by the Organization on 14 November 1977 by resolution A.393(X), which superseded resolution A.233(VII); see IMO sales publication IMO-608E. Further reference is made to the Guidelines and specifications for pollution prevention equipment for machinery space bilges adopted by the Marine Environment Protection Committee of the Organization by resolution MEPC.60(33), which, effective on 6 July 1993, superseded resolutions A.393(X) and A.444(XI); see IMO sales publication IMO-646E and the revised Guidelines and specifications for pollution prevention equipment for machinery spaces of ships adopted by the Marine Environment Protection Committee of the Organization by resolution MEPC.107(49) which, effectively on 1 January 2005, superseded resolutions MEPC.60(33), A.393(X) and A.444(XI).

2.3.3 The oil content meter:

- .1 has been approved in accordance with resolution A.393(X);
- .2 has been approved in accordance with resolution MEPC.60(33);
- .3 has been approved in accordance with resolution MEPC.107(49);

2.4 Maximum throughput of the system is m³/h

2.5 Waiver of regulation 14:

2.5.1 The requirements of regulations 14.1 and 14.2 are waived in respect of the ship:

- .1 As the ship is provided with adequate means for disposal of oily residues in accordance with the Guidelines
- .2 In accordance with regulation 14.5.1 the ship is engaged exclusively in operations within special area(s):

Name of special area(s)

2.5.2 The ship is fitted with holding tank(s) for the total retention on board of all oily bilge water as follows:

Tank identification	Tank location		Volume (m ³)
	Frames (from) - (to)	Lateral position	
Total volume:m ³			

3. Means for retention and disposal of oil residues (sludge) (regulation 12) and bilge water holding tank(s)*

3.1 The ship is provided with oil residue (sludge) tanks as follows:

Tank identification	Tank location		Volume (m ³)
	Frames (from) - (to)	Lateral position	
Total volume:m ³			

* Bilge water holding tank(s) are not required by the Convention, entries in the table under paragraph 3.3 are voluntary.

3.2 Means for the disposal of residues in addition to the provisions of sludge tanks:

- 3.2.1 Incinerator for oil residues, capacity l/h
- 3.2.2 Auxiliary boiler suitable for burning oil residues
- 3.2.3 Tank for mixing oil residues with fuel oil, capacity m³
- 3.2.4 Facility for adding oil residues to production stream
- 3.2.5 Other acceptable means:

3.3 The ship is provided with holding tank(s) for the retention on board of oily bilge water as follows:

Tank identification	Tank location		Volume (m ³)
	Frames (from) - (to)	Lateral position	
Total volume:m ³			

4. Standard discharge connection
(regulation 13)

- 4.1 The ship is provided with a pipeline for the discharge of residues from machinery bilges and sludges to reception facilities, fitted with a discharge connection

5. Construction
(regulations 18, 26 and 28)

5.1 In relation to the application of regulation 18, the ship is:

- 5.1.1 Provided with SBT
- 5.1.2 Provided with COW
- 5.1.3 Provided with sufficient ballast capacity to meet stability and strength requirements
- 5.1.4 Provided with CBT
- 5.2 Segregated ballast tanks (SBT):
- 5.2.1 The ship is provided with SBT consistent with regulation 18
- 5.2.2 The ship is provided with SBT which includes tanks or spaces not used for oil outboard of all produced oil tanks

5.2.3 SBT are distributed as follows:

Tank	Volume (m ³)	Tank	Volume (m ³)
		Total volume m ³	

5.3 Dedicated clean ballast tanks (CBT):

5.3.1 The ship is provided with CBT consistent with regulation 18.8

5.3.2 CBT are distributed as follows:

Tank	Volume (m ³)	Tank	Volume (m ³)
		Total volume m ³	

5.3.3 The ship has been supplied with a valid Dedicated Clean Ballast Tank Operation Manual, which is dated

5.3.4 The ship has common piping and pumping arrangements for ballasting the CBT and handling produced oil

5.3.5 The ship has separate independent piping and pumping arrangements for ballasting the CBT

5.4 Crude oil washing (COW):

5.4.1 The ship is equipped with a COW system

5.4.2 The ship is equipped with a COW system consistent with regulations 33 and 35

5.4.3 The ship has been supplied with a valid Crude Oil Washing Operations and Equipment Manual which is dated

5.5 Limitation of size and arrangements of produced oil tanks (regulation 26):

5.5.1 The ship is constructed according to the provisions of regulation 26

5.6 Subdivision and stability (regulation 28):

5.6.1 The ship is constructed consistent with regulation 28

5.6.2 Information and data required under regulation 28.5 have been supplied to the ship in an approved form

5.6.3 The ship is constructed consistent with regulation 27

5.7 Double-hull/side construction:

- 5.7.1 The ship is constructed consistent with regulation 19 as follows:
- .1 paragraph 3 (double-hull construction)
 - .2 paragraphs 3.1 and 3.6 (double sides)
 - .3 paragraph .5 (alternative method approved by the Marine Environment Protection Committee)
- 5.7.2 The ship is constructed consistent with regulation 19.6 (double bottom requirements)

6. Retention of oil on board (regulations 29, 31 and 32)

- 6.1 Oil discharge monitoring and control system:
- 6.1.1 The ship comes under category oil tanker as defined in resolution A.496(XII) or A.586(14)* (*delete as appropriate*)
- 6.1.2 The system comprises:
- .1 control unit
 - .2 computing unit
 - .3 calculating unit
- 6.1.3 The system is:
- .1 fitted with a starting interlock
 - .2 fitted with automatic stopping device
- 6.1.4 The oil content meter is approved under the terms of resolution A.393(X) or A.586(14) or MEPC.108(49)† (*delete as appropriate*) suitable for crude oil
- 6.1.5 The ship has been supplied with an operations manual for the oil discharge monitoring and control system
- 6.2 Slop tanks:
- 6.2.1 The ship is provided with dedicated slop tank(s) with the total capacity of m³, which is. % of the oil carrying capacity, in accordance with:

* FPSOs and FSUs the keels of which are laid, or which are at a similar stage of construction, on or after 2 October 1986 should be fitted with a system approved under resolution A.586(14); see IMO sales publication IMO-646E.

† For oil content meters installed on tankers built prior to 2 October 1986, refer to the Recommendation on international performance and test specifications for oily-water separating equipment and oil content meters adopted by the Organization by resolution A.393(X). For oil content meters as part of discharge monitoring and control systems installed on tankers built on or after 2 October 1986, refer to the Guidelines and specifications for oil discharge monitoring and control systems for oil tankers adopted by the Organization by resolution A.586(14); see IMO sales publications IMO-608E and IMO-646E, respectively. For oil content meters as part of discharge monitoring and control systems installed on oil tankers built on or after 1 January 2005, refer to the revised Guidelines and specifications for oil discharge monitoring and control systems for oil tankers adopted by the Organization by resolution MEPC.108(49).

- .1 regulation 29.2.3
- .2 regulation 29.2.3.1
- .3 regulation 29.2.3.2
- .4 regulation 29.2.3.3
- 6.2.2 Produced oil tanks have been designated as slop tanks
- 6.3 Oil/water interface detectors:
 - 6.3.1 The ship is provided with oil/water interface detectors approved under the terms of resolution MEPC.5(XIII)
- 6.4 Waiver of regulation:
 - 6.4.1 The requirements of regulations 31 and 32 are waived in respect of the ship as follows:
 - .1 The ship is engaged exclusively in operations within special area(s) (regulation 3.5)
Name of special area(s).....
 - .2 The ship is provided with adequate means of disposal of contaminated sea water
 - a. sent ashore
 - b. incinerated
 - c. added to the production stream
- 7. Pumping, piping and discharge arrangements (regulation 30)**
 - 7.1 The overboard discharge outlets for segregated ballast are located:
 - 7.1.1 Above the waterline
 - 7.1.2 Below the waterline
 - 7.2 The overboard discharge outlets, other than the discharge manifold, for clean ballast are located[†]:
 - 7.2.1 Above the waterline
 - 7.2.2 Below the waterline
 - 7.3 The overboard discharge outlets, other than the discharge manifold, for dirty ballast water or oil-contaminated water from produced oil tank areas are located:
 - 7.3.1 Above the waterline
 - 7.3.2 Below the waterline in conjunction with the part flow arrangements consistent with regulation 30.6.5
 - 7.3.3 Below the waterline

[†] Only those outlets which can be monitored are to be indicated.

- 7.4 Discharge of oil from produced oil pumps and oil lines (regulations 30.4 and 30.5):
- 7.4.1 Means to drain all produced oil pumps and oil lines at the completion of produced oil discharge:
 - .1 drainings capable of being discharged to a produced oil tank or slop tank
 - .2 for discharge a special small-diameter line is provided

8. Shipboard oil pollution emergency plan
(regulation 37)

- 8.1 The ship is provided with a shipboard oil pollution emergency plan in compliance with regulation 37.1
- 8.2 The ship is provided with an oil pollution emergency plan approved in accordance with procedures established by as the coastal State in compliance with the unified interpretation of regulation 37.1
- 8.3 The ship is provided with a contingency plan in accordance with requirements of OPRC Art. 3(2) accepted in accordance with regulation 37

9. Surveys

- 9.1 Records of surveys in accordance with resolution A.744(18), as amended maintained onboard
- 9.2 In-water surveys in lieu of dry-docking authorized as per documentation

10. Equivalentents

- 10.1 Equivalentents have been approved by the Administration for certain requirements of the guidelines on those items listed under paragraph(s) of this Record

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

Issued at

(Place of issue of the Record)

.....
.....
*(Signature of duly authorized official
issuing the Record)*

(Seal or stamp of the issuing authority, as appropriate)

ANNEX 18**DRAFT TERMS OF REFERENCE
FOR THE SUB-COMMITTEE ON BULK LIQUIDS AND GASES**

1 Under the instructions of the Maritime Safety Committee and the Marine Environment Protection Committee, the Sub-Committee on Bulk Liquids and Gases (BLG) will consider matters related to the following subjects, including the development of any necessary amendments to relevant conventions and other mandatory and non-mandatory instruments, as well as the preparation of new mandatory and non-mandatory instruments, guidelines and recommendations, for consideration by the Committees, as appropriate, related to:

- .1 prevention and control of marine pollution from ships and other related maritime operations involved in the transport and handling of oil and dangerous and noxious liquids substances in bulk;
- .2 evaluation of hazards of dangerous and noxious liquid substances in bulk transported by ships;
- .3 control and management of ships' ballast water and sediments;
- .4 construction, equipment and operational requirements for ships carrying bulk liquids and gases;
- .5 protection of personnel involved in the transport of bulk liquids and gases; and
- .6 survey and certification of ships constructed to carry bulk liquids and gases.

2 The conventions and other mandatory instruments referred to above include, as a minimum:

- .1 1974 SOLAS Convention (chapter VII, parts B and C) and the 1988 Protocol relating thereto;
- .2 MARPOL 73/78 (Annexes I, II, IV and VI, as appropriate);
- .3 International Convention for the Control and Management of Ships' Ballast Water and Sediments, 2004;
- .4 International Code for the Construction and Equipment of Ships carrying Liquefied Gases in Bulk (IGC Code);
- .5 International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk (IBC Code); and
- .6 Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk (BCH Code).

3 The non mandatory instruments, which the Sub-Committee may be called upon to review, including, as a minimum:

- .1 Code for the Construction and Requirement of Ships carrying Liquefied Gases in Bulk (GC Code); and
- .2 Any recommendations and guidelines relevant to the carriage of bulk liquids and gases.

ANNEX 19

**PROPOSED REVISED WORK PROGRAMME OF THE SUB-COMMITTEE
AND PROVISIONAL AGENDA FOR BLG 10**

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 1/20, section 3; BLG 9/17, section 3
2	Casualty analysis (co-ordinated by FSI)	Continuous	MSC 70/23, paragraphs 9.17 and 20.4; BLG 8/18, section 13
3	Consideration of IACS unified interpretations	Continuous	MSC 76/23, paragraph 20.3; BLG 8/18, section 14; MSC 78/26, paragraph 22.12; BLG 9/17, section 6
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	Requirements for protection of personnel involved in the transport of cargoes containing toxic substances in all types of tankers	2005 2006	BLG 1/20, section 12; BLG 8/18, section 9 and paragraph 15.4.2 BLG 9/17, section 4

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 The struck-out text indicates proposed deletions and the shaded text shows proposed additions or changes.

3 Items printed in bold letters have been selected for the provisional agenda for BLG 10.

Sub-Committee on Bulk Liquids and Gases (BLG) (continued)

		Target completion date/number of sessions needed for completion	Reference
H.3	Oil tagging systems	2 sessions	MEPC 45/20, paragraph 17.4; BLG 8/18, section 10 and paragraph 15.4.3
H.4	Revision of the fire protection requirements of the IBC, IGC, BCH and GC Codes (in co-operation with FP, as necessary)	2005	MSC 74/24, paragraph 18.5; BLG 8/18, section 11
H.5 H.4	Amendments to resolution MEPC.2(VI)	2006	MEPC 51/22, paragraph 17.12; BLG 9/17, section 7
H.6 H.5	Development of standards regarding rate of discharge for sewage	2006	MEPC 51/22, paragraph 17.15; BLG 9/17, section 8
H.7 H.6	Development of provisions for gas-fuelled ships (co-ordinated by DE)	2007	MSC 78/26, paragraph 24.11; BLG 9/17, section 9
H.8	Review of the OSV Guidelines (co-ordinated by SLF)	2005	MSC 78/26, paragraph 24.12
H.9 H.7	Development of guidelines for uniform implementation of the 2004 BWM Convention	2006	MEPC 52/24, paragraph 2.21.6; BLG 9/17, section 11
H.10	Clarification of the definition of fuel oil in the revised MARPOL Annex I	2005	MEPC 52/24, paragraph 6.6
H.11	Guidelines for the application of the revised MARPOL Annex I requirements to FPSOs and FSUs	2005	MEPC 52/24, paragraph 13.19

Proposed provisional agenda for BLG 10*

- 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 Development of guidelines for uniform implementation of the 2004 BWM Convention
 - 5 Requirements for protection of personnel involved in the transport of cargoes containing toxic substances in all types of tankers
 - 6 Development of provisions for gas-fuelled ships
 - 7 Amendments to resolution MEPC.2(VI)
 - 8 Development of standards regarding rate of discharge for sewage
 - 9 Consideration of IACS unified interpretations
 - 10 Work programme and agenda for BLG 11
 - 11 Election of Chairman and Vice-Chairman for 2007
 - 12 Any other business
 - 13 Report to the Committees

* Agenda item numbers do not necessarily indicate priority.