



SUB-COMMITTEE ON DANGEROUS
GOODS, SOLID CARGOES AND
CONTAINERS
13th session
Agenda item 20

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REPORT TO THE MARITIME SAFETY COMMITTEE

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1 GENERAL

Introduction

1.1 The Sub-Committee held its thirteenth session from 22 to 26 September 2008 under the chairmanship of Mrs. Olga P. Lefèvre (France). The Vice-Chairman, Captain Juan P. Heusser (Chile), was also present.

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

ALGERIA	LIBERIA
ANGOLA	MALAYSIA
ARGENTINA	MALTA
AUSTRALIA	MARSHALL ISLANDS
BAHAMAS	MEXICO
BANGLADESH	MOROCCO
BELGIUM	NETHERLANDS
BOLIVIA	NIGERIA
BRAZIL	NORWAY
CANADA	PANAMA
CHILE	PAPUA NEW GUINEA
CHINA	PERU
COLOMBIA	PHILIPPINES
CÔTE D'IVOIRE	POLAND
CYPRUS	PORTUGAL
DEMOCRATIC PEOPLE'S REPUBLIC OF KOREA	REPUBLIC OF KOREA
DENMARK	RUSSIAN FEDERATION
DOMINICAN REPUBLIC	SAUDI ARABIA
ECUADOR	SINGAPORE
EGYPT	SOUTH AFRICA
ESTONIA	SPAIN
FINLAND	SWEDEN
FRANCE	SWITZERLAND
GERMANY	SYRIAN ARAB REPUBLIC
GHANA	THAILAND
GREECE	TRINIDAD AND TOBAGO
INDONESIA	TURKEY
IRAN (ISLAMIC REPUBLIC OF)	TUVALU
IRELAND	UKRAINE
ISRAEL	UNITED KINGDOM
ITALY	UNITED STATES
JAPAN	URUGUAY
KENYA	VANUATU
LATVIA	VENEZUELA

the following Associate Member of IMO:

HONG KONG, CHINA

1.3 The session was also attended by observers from the following intergovernmental organizations:

EUROPEAN COMMISSION (EC)
MARITIME ORGANISATION FOR WEST AND CENTRAL AFRICA (MOWCA)

and by observers from the following non-governmental organizations in consultative status:

INTERNATIONAL CHAMBER OF SHIPPING (ICS)
INTERNATIONAL UNION OF MARINE INSURANCE (IUMI)
INTERNATIONAL TRANSPORT WORKERS' FEDERATION (ITF)
BIMCO
INTERNATIONAL ASSOCIATION OF CLASSIFICATION SOCIETIES (IACS)
ICHCA INTERNATIONAL (ICHCA)
EUROPEAN CHEMICAL INDUSTRY COUNCIL (CEFIC)
INSTITUTE OF INTERNATIONAL CONTAINER LESSORS (IICL)
INTERNATIONAL FEDERATION OF SHIPMASTERS' ASSOCIATIONS (IFSMA)
INTERNATIONAL GROUP OF P & I ASSOCIATIONS (P & I CLUBS)
DANGEROUS GOODS ADVISORY COUNCIL (DGAC)
INTERNATIONAL ASSOCIATION OF DRY CARGO SHIPOWNERS
(INTERCARGO)
WORLD NUCLEAR TRANSPORT INSTITUTE (WNTI)
VESSEL OPERATORS HAZARDOUS MATERIALS ASSOCIATION, INC.
(VOHMA)

Opening address

1.4 The Director, Maritime Safety Division, on behalf of the Secretary-General, welcomed participants and delivered the opening address, the full text of which is reproduced in document DSC 13/INF.12.

Chairman's remarks

1.5 The Chairman, in thanking the Director, stated that the Secretary-General's words of encouragement as well as the advice and requests would be given every consideration in the deliberation of the Sub-Committee.

Adoption of the agenda and related matters

1.6 The Sub-Committee adopted the agenda (DSC 13/1/Rev.1) and a provisional timetable (DSC 13/1/1/Add.1), as amended, for guidance during the session. The agenda, as adopted, with a list of documents considered under each agenda item, is set out in document DSC 13/INF.13.

1.7 The Sub-Committee's decisions on the establishment of working and drafting groups are reflected under sections of this report covering corresponding agenda items.

2 DECISIONS OF OTHER IMO BODIES

2.1 The Sub-Committee noted the decisions and comments pertaining to its work made by MSC 83, A 25, FP 52, MEPC 57 and MSC 84 as reported in document DSC 13/2, and took them into account in its deliberations when dealing with the relevant agenda items.

3 AMENDMENTS TO THE IMDG CODE AND SUPPLEMENTS, INCLUDING HARMONIZATION OF THE IMDG CODE WITH THE UN RECOMMENDATIONS ON THE TRANSPORT OF DANGEROUS GOODS

3.1 The Sub-Committee noted that subitems .1 and .2 of this agenda item concerning, respectively, the harmonization of the IMDG Code with the UN Recommendations on the Transport of Dangerous Goods and amendments to the IMDG Code and supplements were closely associated with each other and decided to consider the submissions related to these two subitems together.

APPLICATION OF REQUIREMENTS FOR DANGEROUS GOODS IN PACKAGED FORM IN SOLAS AND THE 2000 HSC CODE

3.2 The Sub-Committee noted that FP 52, having considered document FP 52/9/1 (Secretariat), containing information on the outcome of DSC 12 and document FP 52/9 (Japan), proposing modifications to the draft amendments to SOLAS chapter II-2 and the 2000 HSC Code, prepared by DSC 12, had:

- .1 agreed to the draft amendments to the SOLAS Convention and to the 2000 HSC Code, concerning the application of requirements for the carriage of dangerous goods, for submission to MSC 84 for approval with a view to adoption;
- .2 noted that the delegation of China had reservations regarding the above-mentioned draft amendments and was of the view that the draft amendments should also be considered by the DSC Sub-Committee. Taking that into consideration, the Sub-Committee had invited the delegation of China to submit comments on this matter to MSC 84 and recommended the Committee to instruct DSC 13 to comment, to MSC 85, on the draft amendments set out in DSC 13/3/3, annexes 1 and 2 when the draft amendments will be considered with a view to adoption; and
- .3 noting that generic requirements on prohibition of underdeck stowage of “class 2.3 having subsidiary risk class 2.1” and “class 4.3 liquids having a flashpoint less than 23°C” had not been incorporated in the draft 2008 amendments to the IMDG Code, FP 52 agreed to invite the Committee to instruct the DSC Sub-Committee to consider incorporating such requirements in the IMDG Code.

3.3 The Sub-Committee, having noted document DSC 13/2 which reported that MSC 84 approved the aforementioned draft amendments, requested the Secretary-General to circulate them in accordance with SOLAS article VIII, for consideration, with a view to adoption at MSC 85, instructed the Sub-Committee to consider the draft amendments and submit its comments to MSC 85, forwarded document DSC 13/3/3 to the drafting group for further consideration.

Establishment of the drafting group

3.4 The Sub-Committee established, under agenda item 10, the Drafting Group on Application of requirements for dangerous goods in packaged form in SOLAS and the 2000 HSC Code and on Guidance on providing protective clothing to deal with the matter, after having considered a proposal regarding Guidance on protective clothing (DSC 13/10) (see also paragraph 10.6.1).

Report of the drafting group

3.5 The Sub-Committee considered the report of the drafting group (DSC 13/WP.6) in part relating to the item and took decisions as detailed in the following paragraphs.

3.6 Having considered the view of the group regarding the modifications to the draft amendments to the 1974 SOLAS Convention for submission to MSC 85 (DSC 13/WP.6, paragraphs 3 to 6 and annex 1), the Sub-Committee agreed to reinsert footnotes 20 and 21 under SOLAS table 19.3, in order to be consistent with footnote 16 for class 5.2 of the table and to avoid any misinterpretation regarding cargoes for which underdeck stowage is prohibited in the IMDG Code while completing the Document of Compliance.

3.7 The Sub-Committee, having agreed with the opinion of the group regarding the modifications to the draft amendments to the 2000 HSC Code for submission to MSC 85 (DSC 13/WP.6, paragraphs 7 to 9 and annex 2), agreed to reinsert footnotes 17 and 18 under table 17.7-3, in order to be consistent with footnote 13 for class 5.2 of the table and to avoid any misinterpretation regarding cargoes for which underdeck stowage is prohibited in the IMDG Code while completing the Document of Compliance.

3.8 Having noted that footnotes 9 and 10 of section 7.17.3.8 under table 7.17-3 had been omitted in document DSC 13/3/3, the Sub-Committee agreed to reinsert them. The Sub-Committee further agreed that footnote 9 should be applicable for the whole of the table for classes 1.1 to 1.6 and footnote 10 for the whole of the table for class 5.1.

3.9 The Sub-Committee agreed to the modifications to the amendments to 1974 SOLAS Convention and the 2000 HSC Code, as set out in annexes 1 and 2 respectively, and requested the Secretariat to forward them to MSC 85 for consideration.

REPORT OF THE EDITORIAL AND TECHNICAL GROUP

General

3.10 The Sub-Committee approved, in general, the report of the Editorial and Technical Group on its session, which was held from 24 to 28 September 2007, and took decisions on actions requested of the Sub-Committee (DSC 13/3/1, paragraph 38), as indicated in the following paragraphs.

Errata and corrigenda to the IMDG Code (amendment 33-06)

3.11 The Sub-Committee noted that the group had finalized errata and corrigenda to the IMDG Code (amendment 33-06) which was issued in late 2007.

Draft amendment 34-08 to the IMDG Code

3.12 The Sub-Committee noted that the group had finalized draft amendment 34-08 to the IMDG Code for circulation, in accordance with SOLAS article VIII, for consideration at MSC 84 with a view to adoption and that the Committee, having agreed to replace the words “company” and “companies” with “entity” and “entities”, respectively, in paragraph 1.3.1.1, adopted the amendments to the IMDG Code unanimously by resolution MSC.262(84).

SP179 and SP909

3.13 The Sub-Committee concurred with the view of the group that SP179 and SP909 should be further considered by the Sub-Committee to avoid duplication and forwarded the matter to the Editorial and Technical Group for further consideration.

Personnel who have not yet received the required training

3.14 The Sub-Committee concurred with the view of the group regarding personnel who have not yet received the required training and requested the Secretariat to inform the UNSCOE TDG accordingly.

Marking of the proper shipping name on tank transport units containing dangerous goods

3.15 The Sub-Committee, having considered the outcome of the group's discussion regarding the marking of the proper shipping name on tank transport units containing dangerous goods and the related document DSC 13/3/10 (Netherlands), agreed that for marine pollutants the correct technical name need not be shown on tanks.

3.16 The Sub-Committee further agreed that, in view of the above decision, an amendment to MARPOL Annex III would be necessary and, as such, prepared a justification for a new work programme item, set out in annex 3.

DSC.1/Circ.54 on Information on the amendments to the marine pollutant provisions

3.17 The Sub-Committee noted that the group had finalized the draft circular on Information on the amendments to the marine pollutant provisions which, following approval by DSC 12, was disseminated under the symbol DSC.1/Circ.54, to be effective through amendment 34-08 to the IMDG Code and further noted that DSC.1/Circ.54/Corr.1 correcting an editorial error in the classification flowchart was issued in June 2008.

DSC.1/Circ.55 on Guidance on the application of chapter 2.10 (Marine Pollutants) of the International Maritime Dangerous Goods (IMDG) Code

3.18 The Sub-Committee noted that the group had finalized that draft circular on Guidance on the application of chapter 2.10 (Marine Pollutants) of the International Maritime Dangerous Goods (IMDG) Code which, following approval by DSC 12, was disseminated under the symbol DSC.1/Circ.55.

Amendment of MSC/Circ.1232

3.19 The Sub-Committee concurred with the view of the group that there was a consequential need to amend MSC/Circ.1232 on Carriage of Dangerous Goods – the International Maritime Dangerous Goods (IMDG) Code – Contact information for the designated national competent authority and noted that the Secretariat had subsequently issued MSC/Circ.1254.

IAEA/UN harmonization meeting

3.20 The Sub-Committee, having noted the view of the group that it was not appropriate to include the amendments to the IMDG Code arising from the concurrent IAEA/UN harmonization meeting and having considered the related documents DSC 13/3 and DSC 13/INF.2 (Secretariat) observing that the meeting had agreed:

- .1 to recommend that paragraph 1.5.1.5.1 of the UN Recommendations on the transport of dangerous goods should be amended to read “Excepted packages which contain radioactive material in limited quantities, instruments, manufactured articles and empty packagings as specified in 2.7.2.4.1 shall be subject only to the following provisions of Parts 5 to 7:”; and
- .2 with reference to the possible discrepancy in paragraph 2.7.2.4.1 of the UN Recommendations on the transport of dangerous goods, that (class 7) packages may be classified as excepted packages provided the provisions of 2.7.2.4.1.1 and those of 2.7.2.4.1.2 are met and, furthermore, that this clarification could be provided by means of an appropriate footnote,

decided to forward the amendments to the Editorial and Technical Group for further consideration.

Consequential amendments to the Revised emergency response procedures for ships carrying dangerous goods (EmS Guide)

3.21 The Sub-Committee noted that the group, having finalized draft amendment 34-08, had prepared the consequential amendments to the Revised emergency response procedures for ships carrying dangerous goods (EmS Guide) which were agreed by DSC 12, and that MSC 84 had approved MSC.1/Circ.1262 on Amendments to the Revised emergency response procedures for ships carrying dangerous goods (EmS Guide).

Inclusion of a new note 5 in chapter 5.4, regarding guidance on providing additional information in the transport/shipping document

3.22 The Sub-Committee, having considered the inclusion of a new note 5 in chapter 5.4, regarding guidance on providing additional information in the transport/shipping document, approved the proposal put forward by the Editorial and Technical Group and instructed the group to include the new note 5 in the draft amendment 35-10 to the IMDG Code.

Development of the IMDG Code e-learning course for class 7 radioactive materials

3.23 The Sub-Committee noted the information regarding the development of the IMDG Code e-learning course for class 7 radioactive materials.

Provisions for exemptions

3.24 The Sub-Committee noted the group’s discussion on the removal of practical obstacles to the proper application of the exemption provisions of the IMDG Code and invited CEFIC to provide information on those obstacles.

Definition of the IMDG Code in the Revision of the Code on Alarms and Indicators

3.25 The Sub-Committee noted the view of the group that the definition of the IMDG Code in paragraph 2.19 of the draft revision of the Code on Alarms and Indicators should be amended; and that the Secretariat had informed the DE Sub-Committee accordingly (DE 51/28, paragraph 6.2.2).

FIRE PROTECTION OF CARGO IN CONTAINERS

3.26 The Sub-Committee, having considered documents DSC 13/3/2 (Secretariat) and DSC 13/3/11 (Islamic Republic of Iran), concerning the fire protection of cargo in containers, noted the ongoing work at the UNSCOE on the Transport of dangerous goods in the context of multimodal transport; however, it also noted that the proposal by Iran was mode specific and could be burdensome to the industry. Noting that the issue was an important one and that it was in the work programme of the FP Sub-Committee in the context of stowage of containers, segregation from sources of heat and fire-fighting systems on board ships, invited interested delegations to submit proposals, for solutions to the issue of fires in containers, to that Sub-Committee for consideration.

TEXT OF THE IMDG CODE FREELY DOWNLOADABLE FROM THE INTERNET

3.27 The Sub-Committee noted that MSC 84 had instructed it to consider the merits of placing the complete text of the IMDG Code on the Internet and allowing it to be freely downloadable in the context of improving safety and prevention of pollution and, following an extensive discussion, concluded as follows:

- .1 agreed that this action would facilitate the application and the widest dissemination of the requirements of the IMDG Code and that this was particularly important when considering occasional users of the Code who may not buy it in view of its apparent high cost, small business users and countries where the Code may not be readily available;
- .2 noting the financial burden to the user of updating the Code every two years, agreed that this action would reduce the likelihood of outdated versions of the Code being used;
- .3 agreed that users and Administrations would be assisted in implementing the new mandatory training requirements; and
- .4 noted that this action would align the practice of IMO with that of some of the other modal regulators which, subsequent to the publication of their instruments, make their texts freely downloadable after the entry into force of those instruments.

3.28 However, some delegations were of the opinion that a long-term impact of this action could be to deplete the Printing Fund surplus which could have a consequential effect on the frequency of the DSC Sub-Committee's meeting schedule, and, as a consequence, on development of safety standards.

3.29 The Sub-Committee noted the view of some delegations that there was no glaring evidence that the non-availability of the IMDG Code's text on the Internet is directly contributing to non-compliance with the provisions of the Code or to accidents involving packaged dangerous goods.

3.30 The Sub-Committee also noted that all VOHMA members polled stated that they were in favour of placing the text freely downloadable on the Internet and would continue to purchase the published version of the IMDG Code. The aforementioned observation was supported by observers from DGAC and CEFIC.

3.31 The Sub-Committee further noted that some Administrations have a legal obligation to make freely available the text of national regulations and that the Code may be available in the language of country.

3.32 The Sub-Committee noted information provided by the Director, Maritime Safety Division, regarding the issue of copyright surrounding the IMDG Code, in particular that:

- .1 the texts of the amendments to the IMDG Code are adopted by the Maritime Safety Committee under the cover of an MSC resolution and are annexed to the respective reports of the MSC and also, as requested by the resolution, certified copies of the authentic texts of the amendments to the Code are transmitted to all IMO Members and Contracting Governments to SOLAS by the IMO Legal and External Relations Division;
- .2 the texts of the amendments to the Code under the cover of the MSC resolutions and the authentic texts of the Code are freely available for use by Member Governments which should not be restricted in their publication of this information under their responsibility of promulgation of laws and regulations to give the requirement of the Code full and complete effect under the provisions of article I(b) of the SOLAS Convention; and
- .3 the published version of the IMDG Code is subject to copyright protecting the value of an IMO publication including form and layout of the Code.

3.33 The Sub-Committee, having recalled that the Organization had previously made instruments available on its website on a trial basis, noted that, in the context of enhancing safety and effect, on the publication revenue, of placing the Code on the Internet, an option to progress the matter would be to carry out the trial placing of the Code on the Internet over a two-year period, monitor the statistics for downloads and sales of the published Code and, on completion of the trial, decide accordingly.

AMENDMENT 35-10 TO THE IMDG CODE

3.34 The Sub-Committee considered proposals relevant to amendment 35-10 to the IMDG Code as detailed in the following paragraphs.

Addition of a table to the IMDG Code regarding the weather conditions in destination ports

3.35 The Sub-Committee, having considered a proposal by the Islamic Republic of Iran (DSC 13/3/5) to include a table in the IMDG Code regarding the weather conditions in ports, agreed that the proposal had merit, noted that it could be difficult to implement through the IMDG Code taking into account the dynamic nature of the information proposed and invited the Islamic Republic of Iran and other interested delegations to provide revised proposals to DSC 14, including the option to issue a draft circular thereon.

Revision of the stowage and segregation provisions of chapters 7.1 and 7.2 of the IMDG Code and establishment of the correspondence group

3.36 The Sub-Committee, having considered a proposal by Belgium, France, Germany, Ireland, the Netherlands, Sweden and the United Kingdom (DSC 13/3/6 and DSC 13/INF.4),

recalling that DSC 10 and DSC 11 had recognized the merit in review of the stowage and segregation provisions of chapters 7.1 and 7.2 of the IMDG Code and proposing a correspondence group to consider reviewing the aforementioned chapters and reformatting them, welcomed the initiative noting that such a review should be given the widest possible dissemination to industry users of the Code for their input to be taken into account, and agreed to establish a correspondence group under the coordination of the United Kingdom^{*}, and instructed it, taking into account the relevant comments made and decisions taken in plenary to:

- .1 using document DSC 13/INF.4 as a base and taking into account the general principles outlined in document DSC 13/3/6, paragraph 7, and the advice of class 1 and class 7 experts regarding the specific stowage and segregation requirements of those classes, develop a draft revised text of the stowage and segregation provisions of chapters 7.1 and 7.2 of the IMDG Code;
- .2 prepare consequential changes to the IMDG Code (amendment 34-08), as appropriate; and
- .3 submit a written report to DSC 14.

Height of the proper shipping name characters

3.37 The Sub-Committee, having considered a proposal by Sweden to prescribe a minimum height requirement for the Proper Shipping Name (PSN) characters on cargo transport units (CTUs) (DSC 13/3/7), supported the proposal in principle, noted that a minimum width requirement should also be considered and agreed to forward the proposal to the E&T Group for further consideration.

Provisions for segregation of class 1 and extremely flammable substances

3.38 The Sub-Committee, having considered a proposal by CEFIC on amendments to section 7.2.7.1.3.1 of the IMDG Code, concerning dangerous goods of extreme flammability (DSC 13/3/8), supported the proposal, in principle, without expressing a clear preference for either option and agreed to forward the proposals to the E&T Group for finalization and incorporation in amendment 35-10 to the Code.

Mixed loading of class 5.2 organic peroxides

3.39 The Sub-Committee, having considered a proposal by CEFIC to permit the mixed loading of all types of organic peroxides belonging to class 5.2 (DSC 13/3/9), recalled that the IMDG Code permits the mixed loading of organic peroxides of type B with a class 1 subsidiary risk with organic peroxides of type B without a class 1 subsidiary risk provided that they do not

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react with each other and agreed to forward the proposal to the E&T Group for consideration with a view to improving the clarity of the current provisions of the IMDG Code.

Tracking and monitoring equipment

3.40 The Sub-Committee, having considered a proposal by the United States (DSC 13/3/12) to establish minimum safety requirements for design, installation and use of security devices, beacons or other tracking and monitoring equipment that may have an active power source when installed on cargo transport units for use in the transport of dangerous goods, supported the proposal in principle; noted that there was a need to clarify the proposals with respect to electrical equipment certification requirements and that an amendment to SOLAS might be necessary with respect to the explosion protection requirements for mixed cargoes; and forwarded the proposal to the E&T Group for further consideration.

Revision of entries of UN 3166 and UN 3171

3.41 The Sub-Committee, having considered a proposal by the United States (DSC 13/3/13) to revise the entries related to UN 3166 and UN 3171 in the IMDG Code, supported the proposal in principle and invited the delegation of the United States to submit a revised proposal to the E&T Group for further consideration, taking into consideration the comments of the Sub-Committee.

FOLLOW-UP ACTIONS ARISING OUT OF DSC 12

3.42 The Sub-Committee considered the follow-up actions under this agenda item, arising out of DSC 12 (DSC 13/3/14), and took action as detailed in the following paragraphs.

Consistency of labels between published versions of the IMDG Code

3.43 The Sub-Committee noted that the discrepancy in the colour of the labels in the published versions of the IMDG Code had been rectified and had only affected the first print run of amendment 33-06 to the IMDG Code.

Highlighting amendments between versions of the IMDG Code

3.44 Having noted that the Secretariat, having investigated ways in which to highlight amendments between versions of the IMDG Code, had concluded that this could be achieved in two ways:

- .1 from amendment 35-10 onwards, in respect of the published version, by annotation of the text of the publication of the consolidated edition of the Code, to show the set(s) of amendments which were not incorporated in the previous consolidated edition of the Code; and
- .2 in respect of IMO documentation, the issue, following adoption of a set of amendments, of an information (INF) document containing the consolidated text of the Code showing the aforementioned amendments marked in strike-through and shading,

the Sub-Committee agreed to the way forward proposed by the Secretariat and requested an example be forwarded to the E&T Group to further clarify the intent and assist it in its preparation of amendment 35-10 to the IMDG Code.

4 AMENDMENTS TO THE IMSBC CODE, INCLUDING EVALUATION OF PROPERTIES OF SOLID BULK CARGOES

General

4.1 The Sub-Committee had for its consideration under this agenda item related documents DSC 13/INF.6 and DSC 13/INF.7 (Sweden), as well as documents DSC 12/4/15 (Canada) and MSC 84/8/1 (Japan), and the outcome of the Sub-Committee's deliberations of item 15, detailed in the following paragraphs.

Approval of the draft IMSBC Code

4.2 The Sub-Committee noted that MSC 84 had approved the draft International Maritime Solid Bulk Cargoes (IMSBC) Code and the associated draft MSC resolution, for adoption at MSC 85 in conjunction with the adoption of the related draft SOLAS amendments, authorized the Secretariat to effect editorial corrections to the text of the draft Code, as necessary and that, in this context, having considered proposals by Japan (MSC 84/8/1) on amendments to the Foreword and section 1 of the draft IMSBC Code, had forwarded them to DSC 13 for detailed consideration and, if required, submission of corresponding modifications to the text of the draft IMSBC Code to MSC 85.

4.3 The Sub-Committee further noted that, in the context of the relevant decisions of DSC 12, as detailed in document DSC 12/19 (paragraphs 5.15 to 5.19), the Committee had confirmed that the Code is a living document and agreed that DSC 13 should make progress on the schedules for DRI (A), DRI (B), Coal and Brown coal briquettes, development of new schedules for DRI Fines, Coal carriage on self-unloader type vessels and Formed solid sulphur and should, consequently, modify the draft IMSBC Code, as necessary, before its adoption at MSC 85.

Report of the correspondence group established at DSC 12 and related proposals

4.4 The Sub-Committee, having recalled that DSC 12 had established the Correspondence Group on DRI schedules, under the coordination of the Marshall Islands, with the terms of reference stated in document DSC 12/19 (paragraph 5.9), agreed that it would be appropriate to consider document DSC 13/4/1 (the report of the correspondence group) and related documents submitted by INTERCARGO and International Group of P&I Associations (DSC 13/4/5) and Venezuela (DSC 13/4/7, DSC 13/4/8, DSC 13/INF.10 and DSC 13/INF.11), concurrently. Following an extensive debate on the proposals, the Sub-Committee took action as detailed below:

- .1 noted that the schedules for DRI (A) and DRI (B) were almost finalized;
- .2 noted information from Trinidad and Tobago, the only shipper of DRI (B) cargoes by sea mode, that increasing the weathering provisions from three to ten days would not result in a significant change to the activity levels of the cargo, and forwarded the information to the working group for further consideration;
- .3 noted that mechanical ventilation reduces the build-up of hydrogen gas in the cargo holds but does not alter the chemical composition of the atmosphere in those cargo holds and further noted that there may be occasions where mechanical ventilation would not be appropriate, such as in rough weather whereby a moisture-laden atmosphere might be introduced into the cargo hold, or in the

event of a ventilation fan failure, and that this could lead to a significant rise in the hydrogen levels in the hold, creating a potentially dangerous atmosphere;

- .4 noted, in the context of .3 above, that inerting the atmosphere in the cargo holds changes its chemical composition and agreed that inerting would provide a “safety first approach”, noting further that venting of cargo holds was not hazardous to health; that no incidents related to the carriage of DRI cargoes had occurred when the cargo had been correctly maintained under inert conditions; and that carriage under inert conditions did not preclude the use of mechanical ventilation as a back-up for use in situations where an inert atmosphere could not be maintained;
- .5 noted that, in the context of a schedule for DRI (C) cargoes, information on DRI Fines referred to DRI (A) Fines and that further definition of the proposed schedule for DRI (C) cargoes was necessary in the context of DRI (B) Fines; and
- .6 agreed to forward the documents and comments raised in plenary to the working group for further consideration and instructed the group to progress its work with a view to finalizing all of the outstanding schedules at this session, taking into account the application of the schedules to all cargoes, regardless of their geographical origin, the need to consider provisions for both inerting and mechanical ventilation of DRI (C) cargoes and the need to further develop provisions concerning the maintenance of inert conditions during a voyage and procedures for venting prior to discharge.

Periodicity of amendments to the IMSBC Code

4.5 The Sub-Committee recalled that DSC 12 had agreed that the IMSBC Code would remain a living document, that there would be a consequential need for continuous revisions at intervals of about two years because of its linkage with the IMDG Code which is subject to amendments every two years, and that it would be appropriate that the IMSBC Code should be amended by a procedure similar to that used for amending the IMDG Code.

4.6 Having considered document DSC 13/4 (Secretariat) and a possible procedure for the adoption of future amendments to the IMSBC Code, on the basis of the procedure for the adoption of future amendments to the IMDG Code approved by MSC 75 (MSC 75/24, paragraph 7.36), the Sub-Committee, recalling that the Code contains references to the IMDG Code, which is amended biennially, and that it was desirable to also amend the IMSBC Code biennially, agreed to the following procedure for amending the IMSBC Code:

- .1 amendments to the IMSBC Code be adopted at two-year intervals so that they may enter into force on the 1 January of odd years, e.g., 1 January 2013, 1 January 2015 and so on;
- .2 the Sub-Committee, at a session which takes place in an even year, prepares and agrees to proposed amendments developed on the basis of proposals from Member Governments and international organizations;
- .3 the proposed amendments to the IMSBC Code, so agreed by the Sub-Committee, are circulated by the Secretary-General to all IMO Members and Contracting Governments to SOLAS in accordance with SOLAS article VIII(b)(i) for consideration and adoption by the expanded Committee at its first session thereafter;

- .4 proposed amendments, as may be adopted by the expanded Committee in accordance with SOLAS article VIII(vi)(2)(bb), will enter into force 18 months later, i.e. on the 1 January of odd years;
- .5 one year prior to the date of entry into force of new amendments, Governments are invited to apply them on a voluntary basis. During that period, the carriage of solid bulk cargoes in compliance with either the IMSBC Code in force or the Code incorporating the new amendments should be acceptable; and
- .6 the MSC resolution on adoption of new amendments to the IMSBC Code should include, in an operative paragraph, a clause on the above-mentioned treatment of the amended Code.

Documents and proposals related to the finalization of the IMSBC Code

Stowage and segregation requirements for coal

4.7 The Sub-Committee noted that document DSC 13/4/2 (Japan) had been withdrawn by the Japanese delegation, as it had found the proposed clarification on the stowage and segregation requirements for coal required further improvement and any clarification should be made only after a thorough deliberation. In this context, the Sub-Committee further noted the intention of Japan to start an investigation into the safe carriage of coal and to submit a proposal to clarify the requirements to a future session of the Sub-Committee.

Amendments to the Foreword and section 1

4.8 The Sub-Committee recalled that, due to time constraints, DSC 12 could not reach agreement on a number of issues and, having considered document MSC 84/8/1 (Japan), proposing amendments to the Foreword and section 1 of the draft IMSBC Code on the basis of the discussions at DSC 12 and document DSC 12/19/Add.1, agreed to forward the revised text of the Foreword and section 1 to the working group for further consideration.

Sulphur UN 1350 (crushed, lump and coarse-grained)

4.9 The Sub-Committee, having considered documents DSC 13/4/4 (Canada and Germany) and DSC 13/INF.8 (Germany) which provided a follow-up to the proposed schedule for sulphur (formed, solid) which was agreed in principle at DSC 12 and proposed the inclusion of a new group "C", non-hazardous cargo schedule, revision of the title of sulphur UN 1350 (lump and coarse-grained) to sulphur UN 1350 (crushed, lump and coarse-grained) and replacement of the words "slate", "granules" and "prills" with the words "particles or lump of any size", considered the merits of the schedule being a group "C" cargo, recalled that there are no set procedures for the determination of materials hazardous in bulk, invited interested delegations to consider submitting proposals for such procedures to the Sub-Committee, and forwarded the documents to the working group for further consideration.

Coal carriage on self-unloader type vessels

4.10 The Sub-Committee, having recalled that DSC 12 had considered document DSC 12/4/15 (Canada), concerning coal carriage on self-unloader type vessels and that the working group, due to time constraints, had been unable to consider the document in depth, referred the document to the working group for further consideration.

Survey and certification provisions

4.11 The Sub-Committee, having noted that the draft IMSBC Code did not contain survey and certification provisions, agreed that the issue was a serious one which should be considered expediently and invited interested delegations to submit appropriate proposals to the Sub-Committee.

Miscellaneous proposals

General

4.12 The Sub-Committee considered miscellaneous proposals contained in documents DSC 13/4/3, DSC 13/INF.6, DSC 13/INF.7 and DSC 13/4/6 and took decisions as outlined in paragraphs 4.13 to 4.15.

Transport of wood pellets and other wood products

4.13 The Sub-Committee, having considered documents DSC 13/4/3 (Sweden), concerning the transport of wood pellets and other wood products, DSC 13/INF.6 (Sweden), reporting on a fatal accident in an oxygen deficient atmosphere on a bulk carrier discharging wood pellets and document DSC 13/INF.7 (Sweden) presenting a study on “Hazardous off-gassing of carbon monoxide and oxygen depletion during ocean transportation of wood pellets”, conducted as a result of the above fatal accident and another one in May 2007 involving a further two people, agreed that the proposal by Sweden to review the Recommendations for entering enclosed spaces aboard ships had merit and, as such, prepared a justification for a new work programme item on the review of the aforementioned Recommendations, for consideration by the Committee, set out in annex 4.

4.14 The Sub-Committee also noted the details of the study by Vanuatu and the Marine Accident Investigators’ International Forum on the subject of access to enclosed spaces aboard ships and invited interested delegations to contact the Maritime Administration of Vanuatu* with a view to providing information which would assist in the research into incidents involving access to enclosed spaces on all types of ships.

Citrus pulp pellets

4.15 Following consideration of document DSC 13/4/6 (United States) proposing to amend the schedules for SEEDCAKE (b) UN 1386 and SEEDCAKE UN 2217 to add “citrus pulp pellets” to the list of exempted products and, having noted that the test base consisted of a single sample, expressed support in principle and invited interested delegations to progress the research and provide amended proposals to the Sub-Committee.

Establishment of the working group

4.16 The Sub-Committee established the Working Group on Amendments to the IMSBC Code, under the chairmanship of Captain J-D. Troyat (France), and instructed the group, taking into account the relevant decisions taken and comments made in plenary, to:

* email@vanuatuships.com

- .1 using MSC 84/24/Add.3 as a base document and taking into account documents DSC 13/4/1, DSC 13/4/4, DSC 13/4/5, DSC 13/4/7, DSC 13/4/8, DSC 13/INF.8, DSC 13/INF.10, DSC 13/INF.11, DSC 12/4/15 and MSC 84/8/1, finalize modifications to the draft IMSBC Code;
- .2 if time permits, consider documents DSC 13/4/3, DSC 13/4/6, DSC 13/INF.6 and DSC 13/INF.7 and advise the Sub-Committee accordingly; and
- .3 advise on the need to re-establish the correspondence group and prepare draft terms of reference for the group.

Report of the working group

4.17 Having considered the report of the working group (DSC 13/WP.1) related to the item, the Sub-Committee took action as detailed below:

- .1 agreed to the modifications to the draft IMSBC Code containing amended texts of the Foreword, section 1 and the schedules for BROWN COAL BRIQUETTES, COAL , DRI (A), DRI (B), DRI (C), SULPHUR (formed, solid), SULPHUR UN 1350, WOOD PELLETS and WOODCHIPS, as set out in annex 5, for submission to MSC 85 for consideration when adopting the draft IMSBC Code;
- .2 invited Members to submit proposals on IMSBC Code matters for consideration at the next session of the Sub-Committee;
- .3 invited the Committee to agree on the necessity of considering the review of the Lists of solid bulk cargoes for which a fixed gas fire-extinguishing system may be exempted or for which a fixed gas fire-extinguishing system is ineffective (MSC/Circ.1146) as a consequence of the mandatory IMSBC Code;
- .4 noted the need for clarification of definition in the COAL schedule of “hot areas” and limits of temperature in the context of the IMSBC Code and invited interested delegations to submit their proposals to DSC 14;
- .5 requested the Secretariat to make necessary editorial changes in order to avoid inconsistencies, specifically by substituting “should” with “shall” in mandatory parts of the IMSBC Code, where appropriate; and
- .6 in light of the number of other correspondence groups established at DSC 13, agreed not to establish a correspondence group to finalize issues related to the draft schedule for PULP WOOD and TIMBER and clarification and/or definitions of “hot areas” and limits of temperature in the COAL schedule.

5 AMENDMENTS TO THE CSS CODE

General

5.1 The Sub-Committee recalled that DSC 12, having established the working group on providing safe working conditions for securing of containers and the CSS Code and having considered the report of the working group (DSC 12/WP.4) in part relating to the item, took action as follows:

- .1 noted the group's views on the best way to disseminate information on local regulations, particularly the Russian Federation rules for safe carriage of cargoes by sea, form for cargo information and method of calculation of non-shift criterion for structurizing cargoes, relevant to specialized cargoes and regional trade, contained in document DSC 12/8 (Russian Federation), and that it could not reach an agreement on this issue and decided to request the Secretariat to consider the options suggested by the group and advise DSC 13 accordingly;
- .2 agreed to the deletion of proposed amendments to the CSS Code contained in the sections 7.2 (Container stowage) and 7.3 (Containership condition report) of the proposed amendments to the CSS Code contained in the annex to the report of the correspondence group (DSC 12/10/1). However, it also agreed that matters on container stowage should be taken into account when the Guidelines for the preparation of the cargo securing manual (MSC/Circ.745) is further considered for amendment. Additionally, the Sub-Committee noted the group's opinion that the proposal on the Containership condition report (document DSC 12/10/1, annex, section 7.3) had merit; and
- .3 noted the progress made on the draft amendments to the new annex to the CSS Code, further noted that, due to time constraints, the group was not able to finalize the draft amendments to the CSS Code and agreed to invite the Committee to extend the target completion date of this item to 2008.

5.2 The Sub-Committee noted that there were three issues for consideration, namely means of dissemination of information on local regulations, information on the joint industry research project Lashing@Sea and the finalization of the CSS Code; and took action on the issues as detailed in the following paragraphs.

Means of dissemination of information on local regulations

5.3 The Sub-Committee, having recalled that DSC 12 had agreed (DSC 12/WP.4, paragraph 5) that there were three possible options for means of dissemination of information on local regulations, namely:

- .1 by means of an SLS circular;
- .2 by means of a DSC circular on Information on national rules, which would collect information from Administrations, and be kept and updated on a regular basis by the Secretariat; or
- .3 request the Secretariat to collect, maintain and update all information submitted by Administrations on this matter on the Global Integrated Shipping Information System (GISIS) for public access,

agreed with the outcome of the Secretariat's consideration that the best way to disseminate information on local regulations is to maintain this information in GISIS and to issue an MSC circular informing entities of the availability of such information in GISIS.

Information on the joint industry research project Lashing@Sea

5.4 Having considered a document by the Netherlands and Sweden (DSC 13/INF.9) providing information on the joint industry research project Lashing@Sea, which aims to prevent lashing systems from failing and to increase safety and lashing efficiency where possible, the Sub-Committee forwarded the document to the working group for further consideration.

Finalization of the CSS Code

5.5 The Sub-Committee noted that finalization of the draft amendments to the CSS Code was dependent on the finalization of the work on Guidance on providing safe working conditions for securing of containers which was dealt with under agenda item 8.

Establishment of the working group

5.6 The Sub-Committee agreed to establish, under agenda item 12, the Working Group on Amendments to the CSS Code to deal with this item, after having considered proposals under agenda items 8 and 12 (see also paragraph 12.5).

Report of the working group

5.7 Having considered the report of the working group (DSC 13/WP.2), in part relating to the item, the Sub-Committee noted that, in the context of measures to prevent lashing systems from failing and increasing safety and lashing efficiency where possible, the information contained in the joint industrial research project Lashing@Sea was very important for cargo handling matters, in addition to the design and standardization of containers and agreed to invite the coordinator to keep the Sub-Committee informed on the development of the project and to submit a report on its final conclusions.

Amendment of the title and extension of the target completion date of the item

5.8 The Sub-Committee agreed to invite the Committee to amend the title of the work programme item to read “Amendments to the CSS Code and associated recommendations” as it would appropriately reflect the tasks being undertaken by the Sub-Committee in the above context, and to extend the target completion date of the amended work programme item to 2009.

6 CASUALTY AND INCIDENT REPORTS AND ANALYSIS

Maintenance requirements for freight containers

6.1 The Sub-Committee recalled that documents DSC 13/6/1 (ISO) and DSC 13/6/14 (Germany) were considered under agenda item 14.

Casualty and incident reports

6.2 The Sub-Committee, having recalled that documents DSC 13/INF.6 and DSC 13/INF.7 (Sweden) were dealt with under agenda item 4, considered documents DSC 13/6 (Secretariat), DSC 13/6/11 (Islamic Republic of Iran) and DSC 13/6/13 (United States) and took decisions as follows:

Casualty and incident report and analysis for the CMS Hanjin London

6.3 The Sub-Committee noted the information submitted by the Secretariat on behalf of Germany containing the casualty and investigation report into the spillage of titanium dioxide and hydrochloric acid from a tank container, on the **CMS Hanjin London**, resulting in eight people injured from hydrochloric acid gas inhalation.

Methyle Ethyle Ketone Peroxide fire and subsequent explosion

6.4 The Sub-Committee, having considered a document by the Islamic Republic of Iran reporting on a fire and subsequent explosion in a container stuffed with 15 tonnes of Methyle Ethyle Ketone Peroxide (DSC 13/6/11), took decisions as follows:

- .1 agreed to the importance of underscoring the need to comply with the requirements of the IMDG Code;
- .2 supported, in principle, indicating in column (17) of the dangerous goods list of the IMDG Code, that the fume stemming from Methyl Ethyl Ketone Peroxide (MEKP) is poisonous and agreed to forward the proposal to the E&T Group for finalization and inclusion in the draft amendment 35-10 to the IMDG Code; and
- .3 having considered the need to carry these types of cargoes in refrigerated containers when destined for ports with relatively high temperature and humidity, agreed that further information was required and the matter was multimodal in nature and therefore should also be considered at the United Nations level and, in this context, requested the Islamic Republic of Iran to submit revised proposals to DSC 14 and the Secretariat to advise the UNSCOE of the outcome of its consideration.

Prohibition of underdeck stowage of refrigerated liquefied gases

6.5 The Sub-Committee, having considered a proposal by the United States (DSC 13/6/13) to amend provisions associated with entries relevant to UN 1913, UN 1951, UN 1963, UN 1970, UN 2187, UN 2201 and UN 2591 to prohibit their underdeck stowage in the light of an incident involving the release of Argon, refrigerated liquid (UN 1951) from a portable tank and observed that in confined spaces it presents asphyxiation and burning hazards and that metal fatigue, cracking and embrittlement failure are possible if contact is made with the ship structure, supported the proposal in principle and agreed to forward it to the E&T Group for finalization and inclusion in the draft amendment 35-10 to the IMDG Code.

Inspection programmes for cargo transport units (CTUs) carrying dangerous goods

6.6 The Sub-Committee noted the results of container inspection programmes as submitted by means of documents DSC 13/6/2 (Belgium), DSC 13/6/3 (Finland), DSC 13/6/4 (Canada), DSC 13/6/5 (Germany), DSC 13/6/6 (Sweden), DSC 13/6/7 (Islamic Republic of Iran), DSC 13/6/8 (Italy), DSC 13/6/9 (Republic of Korea), DSC 13/6/10 (Netherlands), DSC 13/6/12 (United States), DSC 13/6/15 (Chile) and DSC 13/6/16 (Secretariat).

6.7 The Sub-Committee recalled that, according to the 2007 consolidated report on container inspection programmes (DSC 12/6/12, Secretariat), a total of 34,416 cargo transport units had been inspected and 8,319 cargo transport units were found with deficiencies, that is, about 24% of the cargo transport units inspected had deficiencies. A total of 10,606 deficiencies were found; a deficiency rate of 31%.

6.8 The Sub-Committee considered the results of the 2008 consolidated report on container inspection programmes (DSC 13/6/16, Secretariat), which was prepared on the basis of the reports referred to in paragraph 6.6 above, whereby a total of 50,212 cargo transport units were inspected and 8,951 cargo transport units were found with deficiencies, that is, about 18% of the cargo transport units inspected had deficiencies. A total of 10,800 deficiencies were found; a deficiency rate of 22%.

6.9 The Sub-Committee expressed its appreciation to those Member Governments that had submitted results of container inspection programmes and its concern about the high rate of deficiencies and the lack of adherence to the provisions of the IMDG Code, especially in the areas of placarding and marking which is 37%, followed by stowage/securing of cargoes inside units, which is 22% of the deficiencies identified.

6.10 The Sub-Committee thanked Member Governments which had submitted the reports, requested them to continue to submit such reports, and urged Member Governments which had not yet carried out container inspection programmes, to do so and to submit the relevant information to the Sub-Committee in accordance with MSC.1/Circ.1202.

Results of IMO survey on inspections of containers/vehicles carrying packaged dangerous goods

6.11 The Sub-Committee recalled that MSC 79, on the basis of relevant decisions of DSC 9, had approved the Questionnaire on inspections of containers/vehicles carrying packaged dangerous goods (MSC/Circ.1147), and requested Member Governments to provide the information requested in the questionnaire set out in the annex to that circular and to forward completed questionnaires to the Secretariat.

6.12 The Sub-Committee further recalled that at DSC 12, noting that only nineteen Member Governments had submitted the completed questionnaire, the Sub-Committee had urged those Member Governments which had not submitted the results so far, to consider doing so for consideration at DSC 13.

6.13 The Sub-Committee, having noted that no further proposals relevant to the completed questionnaire had been submitted to the Sub-Committee, invited Member Governments and international organizations wishing to study the results received so far, to do so and submit the outcome of the study to DSC 14.

7 EXTENSION OF THE BLU CODE TO INCLUDE GRAIN

7.1 The Sub-Committee recalled that, recognizing the Form for cargo information, appendix 5 of the BLU Code, and the part it plays in the safety of cargo loadings (DSC 11/12, paragraph 4), it had decided to consider the matter further when the mandatory IMSBC Code had been finalized, and, having considered a proposal for consequential amendments to the BLU Code in the light of the 2004 BC Code (resolution MSC.193(79)) (DSC 11/12,

paragraph 5), had agreed that it would be prudent to prepare the consequential amendments to the BLU Code once the mandatory IMSBC Code had been finalized and invited the Committee to extend the target completion date of this item to 2008, which it did.

Amendment of the title and extension of the target completion date of the work programme item

7.2 Having further recalled that, in light of the above comments and the finalization of the 2008 IMSBC Code at DSC 12, no documents were submitted to that session, the Sub-Committee noted that no documents were submitted to DSC 13. Noting that document MSC 84/INF.8 is of relevance to the issues considered under this agenda item (see also paragraphs 18.5 and 18.6), the Sub-Committee agreed to request the Committee to amend the title of the work programme item to read “Review of the BLU Code” as it would appropriately reflect the issues being considered by the Sub-Committee in the above context, and to extend the target completion date of the amended work programme item to 2009.

Establishment of the Correspondence Group

7.3 The Sub-Committee agreed to establish a Correspondence Group on Review of the BLU Code under the coordination of the United States*, and instructed it, taking into account the relevant comments made and decisions taken in plenary, to:

- .1 finalize consequential amendments to the BLU Code (MSC.193(79)) in light of the envisaged mandatory IMSBC Code (MSC 84/INF.3 and MSC 85/3/10), taking into consideration DSC 11/19, annex 10;
- .2 prepare consequential amendments to the Manual on loading and unloading of solid bulk cargoes (MSC/Circ.1160) in light of the envisaged mandatory IMSBC Code;
- .3 consider the need to prepare amendments to SOLAS chapter VI considering DSC 11/12 and, if required, prepare a justification for a corresponding work programme item in accordance with the Guidelines on the organization and method of work (MSC-MEPC.1/2);
- .4 consider document MSC 84/INF.8 and advise the Sub-Committee accordingly; and
- .5 submit a written report to DSC 14.

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8 GUIDANCE ON PROVIDING SAFE WORKING CONDITIONS FOR SECURING OF CONTAINERS

General

8.1 The Sub-Committee recalled that MSC 80 had considered document MSC 80/21/7 (United Kingdom), proposing incorporation, in the Code of Safe Practice for Cargo Stowage and Securing, guidance on providing a safe working platform for the securing of containers, to ensure that ship designers, builders and owners take account of the need to provide adequate arrangements to enable safe lashing and securing operations to take place, so that no person is exposed to unnecessary risks to their safety and health whilst undertaking lashing and securing tasks in compliance with the ship's approved cargo securing plan, and that the Committee had included, in the Sub-Committee's work programme, a high-priority item on "Guidance on providing safe working conditions for securing of containers" with a target completion date of 2008.

8.2 Having further recalled that DSC 12 had established a working group to progress the matter but could not complete the work at that session, the Sub-Committee considered documents DSC 13/8 (ICHCA) and DSC 13/8/1 (Germany) and agreed:

- .1 that document DSC 13/8/1 should be used as the basic document to progress the matter; however, document DSC 13/8 did have merit and should be further considered by the working group when finalizing the draft Guidance;
- .2 to invite the SLF Sub-Committee to note the outcome of the Sub-Committee relevant to this item and to take action as appropriate; and
- .3 to invite the Committee to consider the need to instruct the STW Sub-Committee to develop corresponding training requirements, if necessary.

Instructions to the working group

8.3 The Sub-Committee instructed the Working Group on Amendments to the CSS Code established under agenda item 12, to finalize the draft amendments to the CSS Code regarding guidance on providing safe working conditions for the securing of containers.

Report of the working group

8.4 Having considered the report of the working group (DSC 13/WP.2), in part relating to the item, the Sub-Committee took decisions as follows:

- .1 noted the view of some delegations that, before deciding on the dimensions for lashing position design, a formal safety assessment (FSA) should be undertaken and that the DE and SLF Sub-Committees, which had previously considered structural issues related to the agenda item, falling under their purview, should further consider the issue in the light of results of such an FSA;
- .2 noted advice by the Director, Maritime Safety Division, that the Guidelines are recommendations and as such there should be a debate on the merits and validity of an "entry-into-force" date and that, if the Sub-Committee intended to apply the provisions as binding further consideration of the Guidelines and the provisions in SOLAS would be required;

- .3 noted that a small majority of delegations were in favour of using 750 mm, as opposed to 600 mm, as appropriate dimensions for lashing position design, taking into account that the SOLAS requirements for 600 mm related to transit access ways rather than working areas;
- .4 noted that if parts of the Guidelines were to be applied to new ships a definition of “new ship” should be included;
- .5 agreed that further consideration should be given to which parts of annex 1 of DSC 13/WP.2 should be applicable to new and/or existing ships;
- .6 agreed that annexes 1, 3 and 4 of DSC 13/WP.2 are closely associated with each other and as such these, along with annex 2 of DSC 13/WP.2, should be further considered; and
- .7 agreed to consider the above issues under the revised agenda item “Amendments to the CSS Code and associated recommendations” and invited interested parties to submit proposals to DSC 14.

9 REVIEW OF THE RECOMMENDATIONS ON THE SAFE USE OF PESTICIDES IN SHIPS

9.1 The Sub-Committee recalled that DSC 10 had considered documents DSC 10/3/15 and DSC 10/4/4 (Germany) which, noting that the Recommendations on the safe use of pesticides in ships cover three aspects of the use of pesticides on board ships (the fumigation of freight containers and cargo transport units subject to the IMDG Code, the fumigation of cargo holds containing dry cargo, subject to the BC Code, and the control of rodent pests on board all kinds of ships) and that the provisions governing them are interspersed in the existing version of the Recommendations, thus making it difficult to identify the provisions of relevance and posing significant health risks, proposed to review the existing Recommendations under three separate topics.

9.2 Having further recalled that DSC 11, following consideration of document DSC 11/14 (United Kingdom) which, with a view to facilitating timely revision of the Recommendations on the safe use of pesticides in ships had provided:

- .1 a comprehensive guidance document to minimize the risks of personnel and assist in the operational issues involved in the transport supply chain of fumigated containerized cargoes; and
- .2 an *aide-memoire* summarizing the key points for distribution to those involved in fumigating containers,

the Sub-Committee noted that some of the proposed obligations placed on the master are, perhaps, excessive and agreed to the offer of the delegation of Germany to submit, to DSC 12, taking into consideration document DSC 11/14, draft revised Recommendations.

9.3 The Sub-Committee further recalled that DSC 12 had developed a draft MSC circular on the Recommendations on the safe use of pesticides in ships applicable to the fumigation of cargo holds and a draft MSC circular on the Recommendations on the safe use of pesticides in ships applicable to the fumigation of cargo transport units.

9.4 The Sub-Committee noted that, following the Committee's approval of these circulars at MSC 84, the provisions of MSC/Circ.612, as amended by MSC/Circ.689 and MSC/Circ.746, were superseded with regard to the fumigation of cargo holds and cargo transport units.

9.5 The Sub-Committee further noted that one issue remained outstanding, namely the control of rodent pests on board all kinds of ships and, noting that no documents were submitted to DSC 13, invited interested delegations to submit suitable proposals to DSC 14 for consideration. In this context, the Sub-Committee noted the intention of the delegation of Germany to submit proposals to DSC 14, noting also that MSC/Circ.1265 on Recommendations on the safe use of pesticides in ships applicable to the fumigation of cargo transport units would require updating in the light of amendments to the IMDG Code.

9.6 Subsequently, the Sub-Committee invited the Committee to extend the target completion date of the item to 2009.

10 GUIDANCE ON PROTECTIVE CLOTHING

10.1 The Sub-Committee recalled that in considering the proposed draft amendment to paragraph 7.17.3.6.1 of the 2000 HSC Code prepared by FP 49, DSC 10 had noted that this new provision would require that the chemical protective clothing carried on board be selected "taking into account the danger of the chemicals according to the class and liquid or gaseous". In this regard, DSC 10 also noted a lack of corresponding requirements in SOLAS chapter II-2 and, if approved, the HSC Code would provide a higher level of safety than SOLAS ships even though such ships face a similar hazard.

10.2 The Sub-Committee also recalled that, notwithstanding the above points, DSC 10 had endorsed the proposed amendment to paragraph 7.17.3.6.1 of the 2000 HSC Code prepared by FP 49, as modified, from an operational safety standpoint, and expressed the view that, if the relevant amendments to SOLAS and the HSC Code were approved by the Committee, the Sub-Committee's work programme should include an item on the development of the associated guidance concerning protective clothing.

10.3 The Sub-Committee further recalled that MSC 81, endorsing proposals by DSC 10, had decided to include, in the Sub-Committee's work programme and the provisional agenda for DSC 11, a high-priority item on "Guidance on protective clothing", and that DSC 12, noting that no documents had been submitted for consideration at DSC 12, invited interested delegations to submit proposals for consideration at DSC 13.

10.4 The Sub-Committee further recalled that MSC 81 had also approved, in principle, the draft amendments to the 2000 HSC Code, concerning the application of requirements for the carriage of dangerous goods, and instructed DSC 13 to consider the draft amendments and submit its comments to MSC 85.

10.5 The Sub-Committee, having considered document DSC 13/10 (Sweden), proposing that EN 943-2 might be a suitable standard for protective clothing for reference as "standards developed by the Organization", noted that there might be instances where the standard might provide too much or not enough protection, and that there were other standards which should also be taken into consideration and agreed to forward the document to the drafting group for detailed consideration.

Establishment of the drafting group

10.6 The Sub-Committee, after consideration of proposals submitted under this agenda item and agenda item 3 (DSC 13/3/3), established the Drafting Group on Application of requirements for dangerous goods in packaged form in SOLAS and the 2000 HSC Code and on Guidance on providing protective clothing, under the chairmanship of Ms Heddy Lindijer-Schoof (Netherlands), and instructed the group, taking into account documents DSC 13/3/3 and DSC 13/10, and the relevant decisions taken and comments made in plenary, to:

with regard to amendments to the 1974 SOLAS Convention and 2000 HSC Code:

- .1 consider the draft amendments to the 1974 SOLAS Convention and the 2000 HSC Code (document DSC 13/3/3), taking into account the comments and outcomes of DSC 12 (DSC 12/19, paragraphs 12.9 and 12.10 and annexes 11 and 12) and prepare comments thereon, as appropriate; and

with regard to the guidance on providing protective clothing:

- .2 consider the possibility of developing corresponding IMO standards, as “standards developed by the Organization” for guidance on protective clothing, on the basis of EN 943-2, EU Directive 96/98, Annexes 1 and 2, ISO/FDIS 16602, ACGIH 0460 and advise the Sub-Committee accordingly.

Report of the drafting group

10.7 Having considered the report of the drafting group (DSC 13/WP.6), in part relating to the item, the Sub-Committee noted the views of the group regarding the development of an IMO standard on guidance on protective clothing (DSC 13/WP.6, paragraphs 11 and 12) and, having agreed that further deliberation was required on the issue, in co-operation with ISO, as appropriate, invited interested delegations to submit proposals for consideration at DSC 14 to progress the matter, and invited the Committee to extend the target completion date of the item to 2009.

11 REVISION OF THE CODE OF SAFE PRACTICE FOR SHIPS CARRYING TIMBER DECK CARGOES

11.1 The Sub-Committee recalled that, following consideration of document MSC 82/21/14 (Sweden) proposing to revise the Code on Safe Practice for Ships Carrying Timber Deck Cargoes (resolution A.715(17)) to replace outdated methods for securing timber deck cargoes with new methods for safe, rational and efficient securing of such cargoes, MSC 82 had agreed to include, in the Sub-Committee’s work programme and the provisional agenda for DSC 12, a high-priority item on “Revision of the Code of Safe Practice for Ships Carrying Timber Deck Cargoes”, with a target completion date of 2010.

11.2 The Sub-Committee further recalled that DSC 12, having considered document DSC 12/14 (Sweden), which provided a framework and a schedule for the revision of the aforementioned Code, had agreed that this was an important topic and that Sweden had provided a useful way forward, and established a correspondence group to further consider the matter.

Report of the correspondence group

11.3 The Sub-Committee considered the report of the correspondence group (DSC 13/8) and, having approved the report in general, took action as detailed below:

- .1 agreed that the key users, in order of importance are:
 - .1.1 shipowners, operating companies and ship's staff;
 - .1.2 port industries, shippers and pre-packaging organizations, which are involved in preparation, loading and stowing of timber deck cargoes; and
 - .1.3 Administrations, manufacturers and designers of the ship and equipment associated with the carriage of timber deck cargoes and those developing cargo securing manuals;
- .2 agreed that compliance with the Code is the master's responsibility; that the Code should not advise that an officer from an Administration (or someone appointed by them) should visit the ship after completion of lashing to ensure that the vessel is seaworthy; and that Administrations may put in place compliance monitoring programmes to address this issue;
- .3 recalled that as per the instruction of the Committee, the Sub-Committee is to consider the Code in the context as it applies to on-deck cargoes and, should this scope be expanded to consider under-deck issues, then appropriate instructions should be given by the Committee; and
- .4 agreed to forward the document to the working group for further consideration.

Regulatory activities in ensuring the safe carriage of timber cargoes by sea

11.4 The Sub-Committee, having considered document DSC 13/INF.5 (Russian Federation), which provided information on its regulatory activities in ensuring the safe carriage of timber cargoes by sea, with consideration given to navigation area, with a view to assisting in the development of the new draft code, agreed to forward the document to the working group for further consideration.

Establishment of the working group

11.5 The Sub-Committee agreed to establish the Working Group on Revision of the Code of Safe Practice for Ships Carrying Timber Deck Cargoes, under the chairmanship of Mr. Brad Groves (Australia), and instructed the group, taking into account documents DSC 13/11 and DSC 13/INF.5 and the relevant decisions taken and comments made in plenary, particularly with respect to DSC 13/11, paragraph 6, to:

- .1 progress the revision of the Code of Safe Practice for Ships Carrying Timber Deck Cargoes; and
- .2 advise on the need to re-establish the correspondence group and prepare draft terms of reference for the group.

Report of the working group

11.6 Having considered the report of the working group (DSC 13/WP.3), the Sub-Committee approved it in general and took action as outlined in the paragraphs hereunder.

Identification of the key users of the Code

11.7 With regard to the key users of the Code, the Sub-Committee agreed that the current structure of the Code was adequate for the identified users, as identified in paragraph 11.3.1, and that the preface to the Code be modified accordingly.

Design principles of securing arrangements for timber deck cargoes

11.8 The Sub-Committee agreed to retain the current method of securing arrangements for the time being and that other methods such as requirements for stanchions/stays and bottom blocking may be added to the Code in future sessions based on analysis through the consideration by a correspondence group.

Functional or prescriptive requirements or both

11.9 The Sub-Committee endorsed the decision of the group to use a combination of both functional and prescriptive requirements, as is in the existing Code, and that a more functional approach may be taken for future sessions according to the development of such functional requirements. It was felt that utilizing both approaches would provide for future developments.

Basic data to be included in the Code

11.10 Noting that the combination of basic data and cargo characteristics affects the friction, the Sub-Committee agreed that typical data to be used depends on individual cargo. In discussing the need for data, it was noted that any data provided would be considered as “typical” as the actual cargo characteristics would differ with each load. The “typical” data needed to be representative of international cargoes and, at this stage, more data is required to establish this.

11.11 The Sub-Committee noted that the group had considered that the methods of establishing cargo characteristics needed to be provided as this information would be required for shippers to provide appropriate information on cargo declarations, and also noted that document DSC 13/INF.5 (Russian Federation) was drafted based on a different concept (not on friction data but mainly on static stability angles).

Difference between “timber packages” and “round logs”

11.12 The Sub-Committee agreed that the goal for both requirements on timber packages and round logs is the same but that the solutions may be different depending on data obtained for each cargo, and noted that the above-mentioned Russian Federation approach may be incorporated in the further development of design criteria.

Related requirements stipulated in other documents

11.13 Having recognized that the Intact Stability Code, 2008 (2008 IS Code) would be made mandatory under SOLAS and the 1988 LL Protocol by the amendments thereto, which will be

adopted at MSC 85 and are expected to enter into force on 1 July 2010, and that the 2008 IS Code contains mandatory requirements for timber deck cargoes, the Sub-Committee agreed not to retain the relevant requirements in the revised Code but to include reference to the IS Code. The Sub-Committee also agreed to delete visibility requirements, which are stipulated in SOLAS regulation V/22, from the Code and make reference to the SOLAS requirements, and that this deleted text might be provided in an annex to the Code.

Revision of the Code of Safe Practice for Ships Carrying Timber Deck Cargoes

11.14 The Sub-Committee noted that the group had modified the Preface and chapters 1 and 2 of the draft revised Code, contained in annex 2 to document DSC 13/11, and prepared the draft revised Code of Safe Practice for Ships Carrying Timber Deck Cargoes (Preface and chapters 1 and 2 only), as set out in the annex to document DSC 13/WP.3.

11.15 Concerning design criteria for securing arrangements, the Sub-Committee noted that the group, having noted that further analysis of this issue was required, had agreed that further basic data and typical cargo characteristics were also required, and that the group had not considered chapter 3 of, and annexes to, the draft revised Code contained in document DSC 13/11 (annex 2). The Sub-Committee decided that chapter 3 of, and annexes to, the draft revised Code should be developed by the correspondence group, taking into account further development and analysis which may lead to new methods of safe, rational and efficient securing of cargoes. In the context of further work of the correspondence group, the Sub-Committee noted that cross-references and the list of references in the draft Code would be required to be verified when the correspondence group prepares the draft Code.

Establishment of the correspondence group

11.16 The Sub-Committee agreed to re-establish the Correspondence Group on the Revision of the Code of Safe Practice for Ships Carrying Timber Deck Cargoes, under the coordination of Sweden*, and instructed it, taking into account the relevant decisions taken in the working group and comments made in plenary, to:

- .1 further review the Code of Safe Practice for Ships Carrying Timber Deck Cargoes, concentrating on chapter 3 of, and annexes to, the Code, based on documents DSC 13/WP.3 (annex) and DSC 13/11 (annex 2, chapter 3 and annexes);
- .2 prepare a draft revised Code for consideration at DSC 14; and
- .3 submit a written report to DSC 14.

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12 FORM AND PROCEDURE FOR APPROVAL OF THE CARGO SECURING MANUAL

12.1 The Sub-Committee recalled that MSC 82 had considered a proposal by the Russian Federation (MSC 82/21/16) to amend SOLAS regulations VI/5 and VII/5 to require the Cargo Securing Manual to be also provided in the English language and every sheet of the Manual to be marked by symbol of approval acceptable to the Administration, and included in the Sub-Committee's work programme and provisional agenda for DSC 12, a high-priority item on "Form and procedure for approval of the Cargo Securing Manual", with a target completion date of 2008. In this context, the Committee noted a view that, rather than amending the appropriate SOLAS regulation, respective modifications to MSC/Circ.745 could be developed to address the issue.

12.2 The Sub-Committee further recalled that DSC 12, having considered document DSC 12/15 (IACS) which supported the proposal that the cargo securing manual should be written in the ship's working language and that, if this language is not English, a translation of the manual into English should be provided, had agreed that, whilst there did not appear to be widespread evidence of falsification of Cargo Securing Manuals, the text of the Guidelines for the preparation of the Cargo Securing Manual (MSC/Circ.745) would benefit from amendments to require Cargo Securing Manuals to be written in clear and unambiguous text, further noted that the Cargo Securing Manual was a "living document" and, having concurred with the view that, whilst it was not appropriate to mark every page of the manual, had agreed that appropriate records should be maintained of changes to dynamic parts of the manual.

12.3 The Sub-Committee further recalled that DSC 12, having noted a view that the Cargo Securing Manual is primarily used by the ship's staff and, therefore, only needs to be produced in the working language of the ship, further noted that most Manuals are approved by recognized organizations that might not speak the working language of the ship and, as a result, it was advisable to reproduce the Cargo Securing Manuals in the working language of the ship, and, where that language was not English, French or Spanish, in one of those languages as well.

12.4 Having noted that no documents were submitted and that the matter was due for completion, the Sub-Committee agreed to task the working group with writing a suitable amendment to the aforementioned Guidelines for the preparation of the Cargo Securing Manual to indicate that cargo securing manuals should be reproduced in the working language of the ship, and, where that language is not English, French or Spanish, in one of those languages as well, for consideration by the Sub-Committee.

Establishment of the working group

12.5 The Sub-Committee, after consideration of proposals submitted under this agenda item and agenda items 5 and 8, established the Working Group on Amendments to the CSS Code, under the chairmanship of Mr. Dag Steensen (Norway), and instructed the group, taking into account the relevant decisions taken and comments made in plenary, to:

- .1 consider measures to prevent lashing systems from failing and to increase safety and lashing efficiency where possible (DSC 13/INF.9) and make recommendations to the Sub-Committee;
- .2 finalize the draft amendments to the new annex to the CSS Code on Guidance on providing safe working conditions for securing of containers (DSC 13/8 and DSC 13/8/1) taking document DSC 13/8/1 as the base document; and

- .3 finalize the draft revised Guidelines for the preparation of the Cargo Securing Manual, taking into account documents DSC 12/10, annex 1, and DSC 12/19, annex 8, and including provisions to indicate that cargo securing manuals should be reproduced in the working language of the ship, and, where that language is not English, French or Spanish, in one of those languages as well, for consideration by the Sub-Committee.

Report of the working group

12.6 Having considered the report of the working group (DSC 13/WP.2), in part relating to the item, the Sub-Committee, having noted that it was not clear which parts of the circular were intended to apply to new and/or existing ships and that the effective date of the Guidelines required further consideration, agreed to consider the matter further under the item “Amendments to the CSS Code and associated recommendations” (see also paragraph 5.8) and invited interested Members to submit proposals to DSC 14.

13 STOWAGE OF WATER-REACTIVE MATERIALS

13.1 The Sub-Committee noted that, following consideration of document MSC 83/25/6 (Germany), proposing to review the cargo stowage, segregation and packing requirements for certain substances covered by the IMDG Code with a view to developing specific requirements for the stowage of water-reactive materials, the Committee agreed to include in the DSC Sub-Committee’s work programme and the provisional agenda for DSC 13, a high-priority item on “Stowage of water-reactive materials”, with a target completion date of 2009, in co-operation with the FP Sub-Committee, as necessary and when requested by the DSC Sub-Committee.

13.2 The Sub-Committee, having noted that no documents were submitted to this session, considered document MSC 83/25/6 (Germany), which observed that there were some water-reactive substances that could react with carbon dioxide in hot atmospheres which would render the use of conventional fire-fighting mediums worthless and in some cases dangerous and recalled that the risks connected to the stowage of such cargoes in cargo spaces protected by water-based fire-extinguishing systems were identified in 2000 but the issue was not resolved.

13.3 The Sub-Committee further noted that there are related ship safety matters and, therefore, revisions of the EmS Guide alone would not be sufficient and that there is an urgent need to review the stowage, segregation and/or packing of substances covered by EmS Fire Schedule Golf.

13.4 The Sub-Committee invited the delegation of Germany to continue its research and urged other interested delegations to also be involved and to submit proposals to DSC 14.

14 AMENDMENTS TO THE INTERNATIONAL CONVENTION FOR SAFE CONTAINERS, 1972

14.1 The Sub-Committee recalled that DSC 12, having considered a proposal by the Russian Federation (DSC 12/18/1) to standardize the scope and principles of continuous examination programmes and a proposal by Canada (DSC 12/6/5) to review the requirements of the periodic and continuous examination programmes in light of a recent incident, had agreed

that the proposals had merit and forwarded them to the working group to develop a justification for a new work programme item in accordance with the Guidelines on the organization and method of work.

14.2 The Sub-Committee, having recalled that the Committee, at its eighty-fourth session, had placed a high-priority item on “Amendments to the International Convention for Safe Containers, 1972” on the Sub-Committee’s work programme and agenda for DSC 13, with a target completion date of 2009, noted that there were three issues which need to be considered, namely:

- .1 the use of radiofrequency identification for the proper implementation of the CSC, document DSC 13/14/1 (Islamic Republic of Iran);
- .2 amendment to the International Convention for Safe Containers, 1972 and to CSC/Circ.100, documents DSC 13/14 (Spain) and DSC 13/14/2 (Russian Federation); and
- .3 amendment of CSC/Circ.134, documents DSC 13/6/1 (ISO) and DSC 13/6/14 (Germany).

Use of radio frequency identification (RFID) for the proper implementation of the CSC

14.3 Having considered a proposal by the Islamic Republic of Iran (DSC 13/14/1) to apply radio frequency identification (RFID) technology to containers to facilitate checking the validity of the Safety Approval Plate and to effect economic and manpower efficiencies, the Sub-Committee recognized the importance of the proposal; however, it considered that it might be premature in light of the technical constraints of providing an industry standardized data collection and recording facility and issues related to selection of frequency use, and agreed that it would be prudent to await the outcome of the standardization work being undertaken at ISO and to have a cost/benefit analysis of the proposal before progressing the matter.

Amendment to the Recommendations on harmonized interpretation and implementation of the International Convention for Safe Containers, 1972, as amended (CSC/Circ.100)

14.4 In the course of discussions on the item, the Sub-Committee agreed that the current work programme item should be amended to include reference to the associated circulars to the CSC in order to fully consider the extent of amendments necessary to the Convention (see also paragraph 14.9).

14.5 Having considered a proposal by Spain to amend the maintenance and examination procedures contained in CSC/Circ.100 (DSC 13/14), and a proposal by the Russian Federation (DSC 13/14/2) to standardize the scope and principles of the Continuous Examination Programme (CEP), the Sub-Committee noted the concern of some delegations that the racking and stacking provisions could be of a lower level to that required by the ISO standard, and agreed that the Correspondence Group on Amendments to the International Convention for Safe Containers, 1972 and associated circulars should be established (see also paragraph 14.9).

Amendment to the Guidance on serious structural deficiencies in containers (CSC/Circ.134)

14.6 The Sub-Committee considered a proposal by ISO (DSC 13/6/1), detailing consideration of in-service failures of corner fittings and its recommendations for review of its inspection criteria, and noted that the following three areas required consideration:

- .1 the adequacy of current design parameters for use on large containerships and potential amendments that may be necessary;
- .2 appropriate examination criteria to assess whether corner fittings may be retained in service; and
- .3 the adequacy of current quality control procedures for new corner fittings and potential amendments to them,

and, having further noted that ISO had completed its consideration of the adequacy of current quality control procedures for new corner fittings and potential amendments to them, and had proposed amendments to the aforementioned Guidance (CSC/Circ.134) on the basis of their findings, agreed to the draft CSC circular on Amendments to the Guidance on serious structural deficiencies in containers, as set out in annex 6, for submission to MSC 86 for approval.

Combining of closely associated circulars

14.7 The Sub-Committee noted that the Guidelines for the approval of offshore containers handled in open seas (MSC/Circ.860) which were related to the Convention, CSC/Circ.100 and CSC/Circ.134, contained some inaccurate references, and that it might be appropriate to consider combining the three closely associated circulars into one.

Status of the amendments to the CSC

14.8 The Sub-Committee took note of the information provided by the Secretariat that currently only nine countries had accepted Amendments to the International Convention for Safe Containers (CSC), 1972 (resolution A.737(18)), and that 52 acceptances were needed by Contracting Parties before the amendments could enter into force and, therefore, invited Contracting Parties which had not accepted them to consider doing so.

Amendment of the title of the work programme item

14.9 The Sub-Committee agreed to amend the title of the work programme item to “Amendments to the International Convention for Safe Containers, 1972, and associated circulars”, subject to the Committee’s approval, as appropriate.

Establishment of the correspondence group

14.10 In view of the above developments on the matter, the Sub-Committee agreed to establish the Correspondence Group on Amendments to the International Convention for Safe Containers, 1972, and associated circulars, under the coordination of the International Standards

Organization (ISO)*, and instructed it, taking into account the relevant comments made and decisions taken in plenary, to:

- .1 develop guidelines for the approval, management, and auditing of container maintenance and examination schemes;
- .2 taking DSC 13/14 as a base document and taking into account document DSC 13/14/2, review the CSC and associated circulars, taking into account container design requirements, and racking and stacking capabilities in particular;
- .3 consider the merits of a consolidated text of the information contained in the associated circulars and, if appropriate, prepare a draft consolidated text of CSC/Circ.100, CSC/Circ.134 and MSC/Circ.860; and
- .4 submit a written report to DSC 14.

15 REVIEW OF THE GUIDELINES FOR PACKING OF CARGO TRANSPORT UNITS

15.1 The Sub-Committee recalled that MSC 76 had approved MSC/Circ.787 on IMO/ILO/UNECE Guidelines for Packing of Cargo Transport Units, which were prepared in co-operation with the UNECE Working Party on Combined Transport (WP.24), and that these Guidelines were subsequently endorsed by the Inland Transport Committee of the UNECE in January 1997 and by the Governing Body of ILO in March 1997.

15.2 The Sub-Committee further recalled that DSC 12, having considered document DSC 12/3/6 (Germany), had noted that although the IMDG Code is updated every two years, the Guidelines on Packing of Cargo Transport Units have not been amended since the adoption of amendment 31-02 to the IMDG Code and that the Guidelines may benefit from improvements; and agreed that the proposal of Germany had merit and prepared a justification for a new work programme item on the review of the aforementioned resolution for consideration by the Committee.

15.3 Having considered document DSC 13/15 (Germany), which observed that when the Guidelines were reproduced in the 2006 Edition of the Supplement to the IMDG Code they were not updated to reflect the changes to annex 2 on Labels, placards, marks and signs, proposed making the appropriate amendments to the Guidelines and further proposed instructing the Editorial and Technical Group to identify amendments in future as they become necessary and to report them to the Sub-Committee for approval, the Sub-Committee noted:

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- .1 that any amendment to the Guidelines will first have to be approved by the Committee and then by the other co-sponsoring agencies;
- .2 that it will therefore not be possible to have any amended Guidelines included in the printed version of the 2008 Supplement to the IMDG Code; and
- .3 that the Secretariat had amended the Foreword and the related footnote in annex 2 of the Guidelines in the 2008 published version of the Supplement to the IMDG Code, directing users to refer to the labels, placards, marks and signs in the IMDG Code.

15.4 The Sub-Committee, having further noted that there may be a need to consider developing an ongoing procedure to update instruments, which may be affected by revisions to the IMDG Code; that this may be a large body of work; and that it might not be possible to always have the Editorial and Technical Group to conduct such a review, forwarded document DSC 13/15 to the drafting group for further consideration.

Establishment of the drafting group

15.5 Having deliberated on the item, the Sub-Committee established the Drafting Group on review of the Guidelines for packing of cargo transport units under the chairmanship of Mr. Uwe Kraft (Germany), and instructed the group, taking into account document DSC 13/15 and the relevant decisions taken and comments made in plenary, to prepare draft amendments to the Guidelines for packing of cargo transport units (MSC/Circ.787), to harmonize the Guidelines with amendment (34-08) to the IMDG Code.

Report of the drafting group

15.6 Upon receiving the report of the drafting group (DSC 13/WP.7), the Sub-Committee approved the report, in general, and took decisions as detailed in the following paragraphs:

- .1 having noted that different countries have different requirements for the packing of CTUs, agreed that a reference to the IMO model course on packing and securing of CTUs should be included in the Guidelines and further agreed to forward the draft amendments to the E&T Group for further consideration;
- .2 having considered the proposal on how to deal with future amendments to the Guidelines, noted that one option was to request the Committee to place a standing item on review of the Guidelines on the future work programme of the Sub-Committee and, noting that there was insufficient time at DSC 13 to prepare a justification for a new work programme item on the issue, agreed to forward it to the E&T Group for further consideration;
- .3 noted the group's observation regarding the difference in the requirements for placarding of semi-trailers and full-trailers and forwarded it to the E&T Group for further consideration; and
- .4 considered whether the revision of the Guidelines should be completed with the amendment set out in the annex to document DSC 13/WP.7 or whether other parts of the Guidelines should be revised as well, taking into account the group's opinion, and forwarded it to the E&T Group for further consideration.

16 WORK PROGRAMME AND AGENDA FOR DSC 14

16.1 Taking into account the progress made at this session and the provisions of the agenda management procedure contained in paragraphs 3.14 to 3.27 of the Guidelines on the organization and method of work (MSC-MEPC.1/Circ.2), the Sub-Committee revised its work programme (DSC 13/WP.4) based on that approved by MSC 84, taking into account relevant decisions of MEPC 57, and prepared the revised Sub-Committee's work programme and provisional agenda for DSC 14. While reviewing the work programme, the Sub-Committee agreed to invite the MSC, and the MEPC as far as environment-related items are concerned, to:

- .1 delete the following work programme items, as the outstanding work on them will be combined under item "Amendments to the CSS Code and associated recommendations":
 - .1.1 item H.4 - Guidance on providing safe working conditions for securing of containers;
 - .1.2 item H.8 - Form and procedure for approval of the Cargo Securing Manual;
- .2 extend the target completion date of the following work programme items:
 - .2.1 item H.5 - Review of the Recommendations on the safe use of pesticides in ships 2009;
 - .2.2 item H.6 - Guidance on protective clothing 2009;
- .3 amend the title and extend the target completion date of the work programme items H.2 and H.3 as follows:
 - .3.1 item H.2 - Amendments to the CSS Code and associated recommendations 2009;
 - .3.2 item H.3 - Review of the BLU Code 2009;
- .4 amend the title of work programme item H.10 as follows:
 - .4.1 item H.10 - Amendments to the International Convention for Safe Containers, 1972 and associated circulars 2009;
- .5 replace the number of sessions needed for completion of the following work programme item as it has been selected for inclusion in the provisional agenda for DSC 14:
 - .5.1 item L.2 - Consideration for the efficacy of Container Inspection Programme 2010;

- .6 include the following new work programme items in the Sub-Committee's work programme, taking into account the justifications provided:
 - .6.1 item H.10 - Amendments to MARPOL Annex III 2009;
 - .6.2 item H.11 - Revision of the Recommendations for entering enclosed spaces aboard ships 2010;
- .7 in work programme item 2, replace "BC" by "IMSBC"; and
- .8 renumber the work programme items accordingly.

16.2 The Sub-Committee invited the Committee to approve the proposed revised work programme of the Sub-Committee and provisional agenda for DSC 14, set out in annex 7.

Strategic Plan for the Organization and High-level Action Plan

16.3 With regard to the Strategic Plan for the Organization (for the six-year period 2008-2013) and updated High-level Action Plan of the Organization and priorities for the 2008-2009 biennium, the Sub-Committee noted the information provided by the Secretariat regarding recommendations for necessary action, endorsed by the Council, in particular that:

- .1 all IMO organs should, sufficiently early in their agendas for each session, set aside adequate time for the systematic consideration of the high-level actions and their associated priorities, and their connection to the strategic directions;
- .2 when considering their work programmes and provisional agendas for their next sessions, all IMO organs should, under each item, cross-reference the related strategic directions and high-level actions; and
- .3 Sub-Committees should, in reporting to the Committees on their work programmes, report on the status of their planned outputs.

16.4 The Sub-Committee also noted that MSC 84 had agreed to the following procedure for reporting on the status of the planned outputs:

- .1 the Sub-Committees, at each respective session, should prepare and annex to their respective reports a report on the status of their planned outputs in the High-level Action Plan for the respective biennium in the format proposed in the annex to document STW 39/WP.1, for the Committee's consideration and endorsement; and
- .2 regarding the terminologies to be used to describe the status of the planned outputs, the term "ongoing" should not be used and actual progress of work must be reflected and, in addition, the status of work on the long-term work programmes should also be provided.

16.5 In this regard, the Sub-Committee, having considered the draft status of planned outputs in the High-level Action Plan for the 2008-2009 biennium relating to the Sub-Committee's work, based on the Annex to resolution A.990(25), (DSC 13/WP.4, annex 4), agreed to the status of the planned outputs, as set out in annex 8.

16.6 The Sub-Committee noted that the Committee had agreed that, if the Strategic Plan and the table of planned output are to be used to manage the work programme of the Committees and sub-committees, then proper guidelines should be developed and the Committees' Guidelines should be reviewed accordingly. In this context of the above, the Sub-Committee further noted that the Committee had agreed that the agenda management procedure specified in paragraphs 3.13 to 3.25 of the Committees' Guidelines should be applied so that the agendas of all the Sub-Committees are manageable.

Arrangements for the next session

16.7 The Sub-Committee agreed to establish, at DSC 14, working and drafting groups on the following subjects:

- .1 amendments to the IMSBC Code, including evaluation of properties of solid bulk cargoes;
- .2 revision of the Code of safe practice for ships carrying timber deck cargoes;
- .3 amendments to the International Convention for Safe Containers, 1972 and associated circulars;
- .4 review of the Recommendations on the safe use of pesticides on ships; and
- .5 amendments to MARPOL Annex III.

16.8 The Sub-Committee established correspondence groups on the following subjects, due to report to DSC 14:

- .1 review of the stowage and segregation provisions of chapters 7.1 and 7.2 of the IMDG Code;
- .2 revision of the Code of safe practice for ships carrying timber deck cargoes;
- .3 amendments to the International Convention for Safe Containers, 1972, and associated circulars; and
- .4 review of the BLU Code,

and also agreed that the Chairman, in consultation with the Secretariat, should undertake the final selection, taking into account the documentation submitted on the above subjects, and should inform the Sub-Committee accordingly in good time for the next meeting.

Future sessions of the Editorial and Technical (E&T) Group

16.9 The Sub-Committee, having recalled that at DSC 12, it had agreed that there is a need for two meetings of the Editorial and Technical Group in 2009, with the first meeting in June and the second meeting back-to-back with DSC 14, invited the Committee to approve the holding of two meetings of the group.

Date of the next session

16.10 The Sub-Committee noted that the date of the fourteenth session is tentatively scheduled to take place from 21 to 25 September 2009.

17 ELECTION OF CHAIRMAN AND VICE-CHAIRMAN FOR 2009

17.1 In accordance with the Rules of Procedure of the Maritime Safety Committee, the Sub-Committee unanimously re-elected Mrs. Olga P. Lefèvre (France) as Chairman and elected Mr. Arsenio A. Dominguez (Panama) as Vice-Chairman, both for the year 2009.

Expression of appreciation

17.2 The Sub-Committee expressed its deepest appreciation to Mr. J.P. Heusser (Chile), Vice-Chairman of the Sub-Committee, for his dedicated and outstanding service to the work of the Sub-Committee for a period of six years, congratulated him on his promotion and wished him every success in his new appointment.

18 ANY OTHER BUSINESS

18.1 The Sub-Committee noted that there were, primarily, four issues to consider, namely:

- .1 codes, recommendations, guidelines and other non-mandatory instruments, document DSC 13/18 (Secretariat);
- .2 installation of radiation detection devices to identify radioactive materials in ports of developing countries, document DSC 13/18/1 (Islamic Republic of Iran);
- .3 bulk carrier loading rates, document MSC 84/INF.8 (INTERCARGO); and
- .4 an update on the status of courses on the implementation of the IMDG Code, document DSC 13/1/1.

Codes, recommendations, guidelines and other non-mandatory instruments

18.2 The Sub-Committee recalled that MSC 83, when considering the list of codes, recommendations, guidelines and other safety- and security-related non-mandatory instruments relating to the work of the Committee (MSC 82/18/1 and MSC 82/INF.12, which were deferred from MSC 82 to MSC 83), referred the detailed consideration of the list to the relevant sub-committees for the identification of those instruments which might be relevant in the context of the collection of information on their implementation.

18.3 In view of the length of the list attached to document DSC 13/18, containing 47 non-mandatory instruments, and the information received regarding the further development of GISIS, the Sub-Committee supported in general the development of a GISIS module on non-mandatory requirements and recommendations to be kept updated by the Secretariat and, having noted a view that some circulars did not fall under the purview of the Sub-Committee, requested the Secretariat to review the list in order to reflect the Sub-Committee's position accurately.

Installation of radiation detection devices to identify radioactive materials in ports of developing countries

18.4 Having considered a document by the Islamic Republic of Iran (DSC 13/18/1), which observed that a great amount of cargo is imported via seaports and that some of these cargoes are associated with radioactive contamination, naturally occurring or otherwise, and proposed, in light of this and for the safety of port workers, other persons and the environment, the installation of fixed or portable radiation detection equipment and the proper training in radiation protection of workers engaged in the transport of radioactive materials, the Sub-Committee supported the proposal in principle; noted the intention of the Islamic Republic of Iran to submit a justification for a new work programme item on the subject to MSC 86; and further noted that any work done by the Sub-Committee would be done in close co-operation with IAEA.

Bulk cargo loading rates

18.5 The Sub-Committee noted that the Committee, having considered document MSC 84/INF.8, concerning a recent survey of ships' masters conducted as part of an ongoing investigation into high loading rates of bulk carriers, highlighting that many of the issues raised by the survey were subject to further investigation and that it was evident that the BLU Code was not being universally applied, had referred the document to DSC 13 for information purposes and had invited INTERCARGO to consider submitting that information, along with other relevant findings with a view to developing risk reduction measures, to the Sub-Committee for detailed consideration.

18.6 Following consideration of document MSC 84/INF.8, the Sub-Committee, having recalled its decision to request the Committee to amend the title of the item to "Review of the BLU Code" and to extend the target completion date of the item to 2009, forwarded the document to the Correspondence Group on Review of the BLU Code for further consideration and to advise the Sub-Committee accordingly (see section 7).

Courses on the implementation of the IMDG Code

18.7 The Sub-Committee noted that since DSC 12 there had been no courses on the implementation of the IMDG Code, although two were planned for 2008/2009.

19 REVIEW OF DOCUMENTATION REQUIREMENTS FOR DANGEROUS GOODS IN PACKAGED FORM

19.1 The Sub-Committee noted that, following consideration of document MSC 84/22/11 (United States), proposing to review documentation requirements for dangerous goods in packaged form and, if necessary, to prepare amendments to SOLAS regulation VII/4 and to the provisions of the IMDG Code that pertain to documentation, in order to remove ambiguities and inconsistencies in documentation aiming at the facilitation of the safe and efficient transportation of dangerous goods in packaged form by sea, MSC 84 agreed to include, in the work programme of the DSC Sub-Committee and provisional agenda for DSC 13, a low-priority item on "Review of documentation requirements for dangerous goods in packaged form", with a target completion date of 2009.

19.2 Having considered document MSC 84/22/11, the Sub-Committee supported, in principle, revision of SOLAS regulation VII/4 and, having noted that SOLAS documentation requirements were also contained in MARPOL Annex III, forwarded the document to the E&T Group for finalization.

20 ACTION REQUESTED OF THE COMMITTEES

20.1 The Maritime Safety Committee, at its eighty-fifth session, is invited to:

- .1 consider the modifications to the draft amendments to SOLAS chapter II-2 and the 2000 HSC Code, concerning the application of requirements for the carriage of dangerous goods and take action as appropriate (MSC 85/3/11) (paragraph 3.9 and annexes 1 and 2, respectively);
- .2 consider the justification for inclusion of a new item on “Amendments to MARPOL Annex III” in the Sub-Committee’s work programme (paragraph 3.16 and annex 3);
- .3 consider the justification for inclusion of a new item on “Amendments to the Recommendations for entering enclosed spaces aboard ships (resolution A.864(20)) and take action as appropriate (paragraph 4.13 and annex 4);
- .4 consider the proposed modifications to the draft IMSBC Code when adopting the draft IMSBC Code and take action as appropriate (paragraph 4.17.1 and annex 5);
- .5 approve the proposed revised work programme of the Sub-Committee and provisional agenda for DSC 14 (paragraph 16.1, annex 7);
- .6 endorse the status of planned outputs in the High-level Action Plan for the 2008-2009 biennium relating to the Sub-Committee’s work (paragraph 16.5 and annex 8);
- .7 approve two meetings of the Editorial and Technical Group in 2009, with the first meeting in June and the second meeting back-to-back with DSC 14 (paragraph 16.9).

20.2 The Maritime Safety Committee, at its eighty-sixth session, is invited to:

- .1 consider the outcome of the discussion on making the text of the IMDG Code freely downloadable from the Internet and decide on an appropriate recommendation to the Council (paragraphs 3.27 to 3.33);
- .2 approve the procedure for the adoption of future amendments to the IMSBC Code (paragraph 4.6);
- .3 decide on the necessity of considering the review of the Lists of solid bulk cargoes for which a fixed gas fire-extinguishing system may be exempted or for which a fixed gas fire-extinguishing system is ineffective (MSC/Circ.1146) (paragraph 4.17.3);

- .4 endorse the decision of the Sub-Committee that the best way to disseminate information on local regulations is to maintain this information in GISIS and to issue an MSC circular informing entities of the availability of such information in GISIS (paragraph 5.3);
 - .5 note the outcome of consideration of the report of the Working Group on Amendments to the CSS Code (paragraph 8.4);
 - .6 consider the observation of the Sub-Committee that MSC/Circ.1265 on Recommendations on the safe use of pesticides in ships applicable to fumigation of cargo transport units would require updating in light of amendments to the IMDG Code and authorize the Sub-Committee accordingly (paragraph 9.5);
 - .7 approve the draft CSC circular on Amendments to the Guidance on serious structural deficiencies in containers (paragraph 14.6 and annex 6);
 - .8 note that the Sub-Committee, with regard to the Committee's instruction to identify those non-mandatory instruments for which information for their implementation should be collected, supported, in general, the development of a GISIS module on non-mandatory instruments and recommendations to be kept updated by the Secretariat (paragraph 18.3); and
 - .9 approve the report in general.
- 20.3 The Marine Environment Protection Committee, at its fifty-ninth session, is invited to:
- .1 consider the justification for inclusion of a new item on "Amendments to MARPOL Annex III" in the Sub-Committee's work programme and take action as appropriate (paragraph 3.16 and annex 3).

ANNEX 1

MODIFICATIONS TO DRAFT AMENDMENTS TO SOLAS CHAPTER II-2

CHAPTER II-2
CONSTRUCTION – FIRE PROTECTION, FIRE DETECTION AND
FIRE EXTINCTIONPart G
Special requirements**Regulation 19 – Carriage of dangerous goods**

- 15 The existing note 1 to table 19.1 is replaced by the following:
- “¹ For classes 4 and 5.1 solids not applicable to closed freight containers. For classes 2, 3, 6.1 and 8 when carried in closed freight containers the ventilation rate may be reduced to not less than two air changes per hour. For classes 4 and 5.1 liquids when carried in closed freight containers, the ventilation rate may be reduced to not less than two air changes per hour. For the purpose of this requirement a portable tank is a closed freight container.”
- 16 In note 10 to table 19.2, the words “the Code of Safe Practice for Solid Bulk Cargoes, adopted by resolution A.434(XI)” are replaced by the words “the International Maritime Solid Bulk Cargoes (IMSBC) Code, as adopted by resolution MSC....(...)”.
- 17 The existing table 19.3 is replaced by the following table:

“Table 19.3

Application of the requirements to different classes of dangerous goods except solid dangerous goods in bulk

Class	Regulation 19																							
	1.1 to 1.6	1.4S	2.1	2.2	2.3 flammable ²⁰	2.3 non-flammable	3 FP ¹⁵ < 23°C	3 FP ¹⁵ ≥ 23°C to ≤ 60°C	4.1	4.2	4.3 liquids ²¹	4.3 solids	5.1	5.2 ¹⁶	6.1 liquids FP ¹⁵ < 23°C	6.1 liquids FP ¹⁵ ≥ 23°C to ≤ 60°C	6.1 liquids	6.1 solids	8 liquids FP ¹⁵ < 23°C	8 liquids FP ¹⁵ ≥ 23°C to ≤ 60°C	8 liquids	8 solids	9	
3.1.1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
3.1.2	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-
3.1.3	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3.1.4	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3.2	X	-	X	-	X	-	X	-	-	-	X ¹⁸	-	-	-	X	-	-	-	X	-	-	-	X ¹⁷	
3.3	X	X	X	X	-	X	X	X	X	X	X	X	X	-	X	X	X	X	X	X	X	X	X	-
3.4.1	-	-	X	-	-	X	X	-	X ¹¹	X ¹¹	X	X	X ¹¹	-	X	X	-	X ¹¹	X	X	-	-	X ¹¹	
3.4.2	-	-	X	-	-	-	X	-	-	-	-	-	-	-	X	-	-	-	X	-	-	-	X ¹⁷	
3.5	-	-	-	-	-	-	X	-	-	-	-	-	-	-	X	X	X	-	X	X ¹⁹	X ¹⁹	-	-	
3.6	-	-	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X ¹⁴	
3.7	-	-	-	-	-	-	X	X	X	X	X	X	X	-	X	X	-	-	X	X	-	-	-	
3.8	X ¹²	-	X	X	X	X	X	X	X	X	X	X	X ¹³	X	X	X	-	-	X	X	-	-	-	
3.9	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
3.10.1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
3.10.2	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	

- ¹¹ When “mechanically-ventilated spaces” are required by the IMDG Code, as amended.
- ¹² Stow 3 m horizontally away from the machinery space boundaries in all cases.
- ¹³ Refer to the IMDG Code, as amended.
- ¹⁴ As appropriate for the goods to be carried.
- ¹⁵ FP means flashpoint.
- ¹⁶ Under the provisions of the IMDG Code, as amended, stowage of class 5.2 dangerous goods under deck or in enclosed ro-ro spaces is prohibited.

- ¹⁷ Only applicable to dangerous goods evolving flammable vapour listed in the IMDG Code.
- ¹⁸ Only applicable to dangerous goods having a flashpoint less than 23°C listed in the IMDG Code.
- ¹⁹ Only applicable to dangerous goods having a subsidiary risk class 6.1.

²⁰ Under the provisions of the IMDG Code, as amended, stowage of class 2.3 having subsidiary risk class 2.1 under deck or in enclosed ro-ro spaces is prohibited.

²¹ Under the provisions of the IMDG Code, as amended, stowage of class 4.3 liquids having a flashpoint less than 23°C under deck or in enclosed ro-ro spaces is prohibited.”

18 In paragraph 2.1, the words “and excepted quantities” with the following footnote are added after the text “except when carrying dangerous goods in limited quantities”:

“Refer to chapter 3.5 of the IMDG Code.”

19 In paragraph 3.4, the existing title is replaced as follows:

“3.4 *Ventilation arrangement*”.

20 The following text is added at the end of the first sentence of paragraph 3.6.1:

“and shall be selected taking into account the hazards associated with the chemicals being transported and the standards developed by the Organization according to the class and physical state* .

* For solid bulk cargoes, the protective clothing should satisfy the equipment provisions specified in the respective schedules of the IMSBC Code for the individual substances. For packaged goods, the protective clothing should satisfy the equipment provisions specified in emergency procedures (EmS) of the Supplement to the IMDG Code for the individual substances.”

21 At the end of paragraph 4, the words “and excepted quantities” are added.

ANNEX 2

MODIFICATIONS TO DRAFT AMENDMENTS TO THE 2000 HSC CODE

**CHAPTER 7
FIRE SAFETY**

- 1 The existing note 1 to table 7.17-1 is replaced by the following:
 - “¹ For classes 4 and 5.1 solids not applicable to closed freight containers. For classes 2, 3, 6.1 and 8 when carried in closed freight containers the ventilation rate may be reduced to not less than two air changes per hour. For classes 4 and 5.1 liquids when carried in closed freight containers, the ventilation rate may be reduced to not less than two air changes per hour. For the purpose of this requirement a portable tank is a closed freight container.”
- 2 The existing table 7.17-3 is replaced by the following:

“Table 7.17-3

Application of the requirements of section 7.17.3 to different classes of dangerous goods except solid dangerous goods in bulk

Section	Class																						
	1.1 to 1.6 ⁹	1.4S	2.1	2.2	2.3 flammable ¹⁷	2.3 non-flammable	3 FP ¹² < 23°C	3 FP ¹² ≥ 23°C to ≤ 60°C	4.1	4.2	4.3 liquids ¹⁸	4.3 solids	5.1 ¹⁰	5.2 ¹³	6.1 liquids FP ¹² < 23°C	6.1 liquids FP ¹² ≥ 23°C to ≤ 60°C	6.1 liquids	6.1 solids	8 liquids FP ¹² < 23°C	8 liquids FP ¹² ≥ 23°C to ≤ 60°C	8 liquids	8 solids	9
7.17.3.1.1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
7.17.3.1.2	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-
7.17.3.1.3	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7.17.3.1.4	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7.17.3.2	X	-	X	-	X	-	X	-	-	-	X ¹⁵	-	-	-	X	-	-	-	X	-	-	-	X ¹⁴
7.17.3.3	X	X	X	X	-	X	X	X	X	X	X	X	X	-	X	X	X	X	X	X	X	X	-
7.17.3.4.1	-	-	X	-	-	X	X	-	X ⁸	X ⁸	X	X	X ⁸	-	X	X	-	X ⁸	X	X	-	-	X ⁸
7.17.3.4.2	-	-	X	-	-	-	X	-	-	-	-	-	-	-	X	-	-	-	X	-	-	-	X ¹⁴
7.17.3.5	-	-	-	-	-	-	X	-	-	-	-	-	-	-	X	X	X	-	X	X ¹⁶	X ¹⁶	-	-
7.17.3.6	-	-	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X ¹¹
7.17.3.7	-	-	-	-	-	-	X	X	X	X	X	X	X	-	X	X	-	-	X	X	-	-	-
7.17.3.8	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
7.17.3.9	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
7.17.3.10	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

⁸ When “mechanically-ventilated spaces” are required by the IMDG Code, as amended.

⁹ Stow 3 m horizontally away from the machinery space boundaries in all cases.

¹⁰ Refer to the IMDG Code, as amended.

¹¹ As appropriate for the goods to be carried.

¹² FP means flashpoint.

¹³ Under the provisions of the IMDG Code, stowage of class 5.2 dangerous goods under deck or in enclosed ro-ro spaces is prohibited.

- ¹⁴ Only applicable to dangerous goods evolving flammable vapour listed in the IMDG Code.
- ¹⁵ Only applicable to dangerous goods having a flashpoint less than 23°C listed in the IMDG Code.
- ¹⁶ Only applicable to dangerous goods having a subsidiary risk class 6.1.

¹⁷ Under the provisions of the IMDG Code, as amended, stowage of class 2.3 having subsidiary risk class 2.1 under deck or in enclosed ro-ro spaces is prohibited.

¹⁸ Under the provisions of the IMDG Code, as amended, stowage of class 4.3 liquids having a flashpoint less than 23°C under deck or in enclosed ro-ro spaces is prohibited.”

- 3 In paragraph 7.17.1, the words “and excepted quantities” with the following footnote are added after the text “except when carrying dangerous goods in limited quantities”:

“Refer to chapter 3.5 of the IMDG Code.”

- 4 The following text is added at the end of the first sentence of paragraph 7.17.3.6.1:

“and shall be selected taking into account the hazards associated with the chemicals being transported and the standards developed by the Organization according to the class and physical state* .

* For solid bulk cargoes, the protective clothing should satisfy the equipment provisions specified in the respective schedules of the IMSBC Code for the individual substances. For packaged goods, the protective clothing should satisfy the equipment provisions specified in emergency procedures (EmS) of the Supplement to the IMDG Code for the individual substances.”

ANNEX 3

JUSTIFICATION FOR A PROPOSED NEW WORK PROGRAMME ITEM (in accordance with MSC-MEPC.1/Circ.2)

AMENDMENTS TO MARPOL ANNEX III

1 Scope of the proposal

Regulation 3 of MARPOL Annex III requires packages containing a harmful substance to be durably marked with the correct technical name. "Packaged form" in MARPOL is defined as the forms of containment specified for harmful substances in the IMDG Code. This means that MARPOL Annex III does apply to marine pollutants in any "packaged form" mentioned in the IMDG Code, including tanks.

The IMDG Code requires only the proper shipping name for the transport of dangerous goods in tanks. This leads to a different regulation in the IMDG Code for the transport in tanks of dangerous goods that are marine pollutants and dangerous goods that are not marine pollutants. To avoid confusion and misinterpretation the relevant provisions of MARPOL Annex III and the IMDG Code should be harmonized.

2 Compelling need

The IMDG Code should not contain regulations that deviate from MARPOL or SOLAS. Where the regulations of the aforementioned conventions differ from one another, this can lead to complications in the handling and transporting dangerous goods.

3 Analysis of the issues involved, having regard to the costs to the maritime industry and global legislative and administrative burdens

SOLAS chapter VII, MARPOL Annex III and the IMDG Code are linked. The IMDG Code depends on both conventions for its legal basis. It is expected that harmonizing the instruments will reduce costs for the maritime industry in avoiding any misinterpretation of the rules during transport.

4 Benefits which would accrue from the proposal

It would contribute to:

- Harmonization between different IMO instruments;
- Harmonization of IMO instruments with UN Recommendations and regulations for other transport modes;
- Better acceptance of provisions of instruments;
- Assisting in the application of relevant instruments; and
- Enhancing transparency in the regulations for its users.

5 Priority and target completion date

High priority, with a target completion date of 2009.

6 Specific indication of the action required

Amendments to regulation 3 of MARPOL Annex III, need to be prepared in order to harmonize the relevant provisions of MARPOL and the IMDG Code.

7 Remarks on the criteria for general acceptance

- .1 The subject of the proposal is within the scope of IMO objectives.
- .2 The item is within the relevant provisions of the Strategic plan for the Organization and the High-level Action Plan as follows:
 - .1 SD: 2
 - .2 HLA: 2.1.1
 - .3 PO 2008-2009: 2.1.1.1
- .3 Adequate industry standards do not exist.
- .4 It is believed that the benefits do justify the proposed action.

8 Identification of which subsidiary bodies are essential to complete the work

The work should be able to be accomplished by the Sub-Committee on Dangerous Goods, Solid Cargoes and Containers exclusively and one session is needed to complete the work.

ANNEX 4**JUSTIFICATION FOR A PROPOSED NEW WORK PROGRAMME ITEM
(in accordance with MSC-MEPC.1/Circ.2)****AMENDMENTS TO THE RECOMMENDATIONS FOR ENTERING ENCLOSED SPACES ABOARD SHIPS
(RESOLUTION A.864(20))****1 Scope of the proposal**

To review and/or revise as necessary, specific provisions of the Recommendations for entering enclosed spaces aboard ships (resolution A.864(20)), concerning:

- .1 Definitions (annex, section 2);
- .2 General precautions (annex, section 5);
- .3 Oxygen-depleting cargoes and materials (annex, paragraph 9.4); and
- .4 any related IMO instruments, e.g., circulars.

2 Compelling need

- .1 Since 2005 seven people have lost their lives and several have been injured on Swedish-flagged vessels or on other flagged vessels in Swedish ports during the handling of wood products. The risks associated with the transportation of seemingly harmless cargo such as wood pellets and other wood products are neither well-known nor understood and have been presented in DSC 13/INF.6 and DSC 13/INF.7.
- .2 The study mentioned in DSC 13/INF.7 on wood pellets was expanded in 2007 to cover other wood products such as pulp wood and wood chips. The conclusion is that measuring both carbon monoxide and oxygen is essential prior to entry into cargo hold and adjacent spaces with air communication with a cargo of wood pellets. However, the study shows that if the minimum oxygen level is specified for cargoes of wood chips and pulp wood, a sufficient level of safety is reached.
- .3 From a practical standpoint with the use of the existing recommendations for entering enclosed spaces aboard ships, personnel involved in such activities are being subjected to an increased risk of serious health incident.
- .4 Additionally, a number of delegations in the working group have proposed that it would be useful to review the existing recommendations for entering enclosed spaces aboard ships (resolution A.864(20)).

3 Analysis of the issues involved, having regard to the costs to the maritime industry and global legislative and administrative burdens

No costs to the maritime industry are anticipated. The administrative burdens to the Organization and to the Member States are anticipated to be minimal.

4 Benefits

The revision and update of the existing recommendations for entering enclosed spaces aboard ships aims to adopt more adequate procedures and safe measures on board. This will result in reduction of risks to the personnel involved in such activities.

5 Priority and target completion date

This matter should have high priority since the issues are of ongoing concern. It is expected that two sessions will be needed to conclude this new item. The new item should be added to the work programme and agenda for DSC 14.

6 Specific indication of the action required

Revised recommendations for entering enclosed spaces aboard ships will need to be prepared to update the Recommendations for entering enclosed spaces aboard ships (resolution A.864(20)), and/or associated IMO documents.

7 Remarks on the criteria for general acceptance

- .1 The subject of the proposal is within the scope of IMO objectives.
- .2 The item is within the relevant provisions of the Strategic plan for the Organization and the High-level Action Plan as follows.
- .3 Adequate industry standards do exist, but they are incomplete and inconsistently applied.
 - .1 SD: 2
 - .2 HLA: 2.1.1
 - .3 PO 2008-2009: 2.1.1.2
- .4 It is believed that the benefits do justify the proposed action.

8 Identification of which subsidiary bodies are essential to complete the work

The work should be able to be accomplished by the Sub-Committee on Dangerous Goods, Solid Cargoes and Containers exclusively and two sessions are needed to complete the work.

ANNEX 5**MODIFICATIONS TO THE DRAFT IMSBC CODE
(MSC 84/24/Add.3)****FOREWORD**

- 1 The following new paragraphs are added after the second paragraph:

“The problems involved in the carriage of bulk cargoes were recognized by the delegates to the 1960 International Conference on Safety of Life at Sea, but at that time it was not possible to frame detailed requirements, except for the carriage of grain. The Conference did recommend, however, in paragraph 55 of Annex D to the Convention, that an internationally acceptable code of safe practice for the shipment of bulk cargoes should be drawn up under the sponsorship of the International Maritime Organization (IMO). This work was undertaken by the Organization’s Sub-Committee on Containers and Cargoes and several editions of the Code of Safe Practice for Solid Bulk Cargoes (BC Code) have been published, since the first edition in 1965. The Sub-Committee was expanded to include dangerous goods and is now called the Sub-Committee on Dangerous Goods, Solid Cargoes and Containers (DSC Sub-Committee).

The prime hazards associated with the shipment of solid bulk cargoes are those relating to structural damage due to improper cargo distribution, loss or reduction of stability during a voyage and chemical reactions of cargoes. Therefore the primary aim of this Code is to facilitate the safe stowage and shipment of solid bulk cargoes by providing information on the dangers associated with the shipment of certain types of solid bulk cargoes and instructions on the procedures to be adopted when the shipment of solid bulk cargoes is contemplated. The requirements for the transport of grain are covered by the International Code for the Safe Carriage of Grain in Bulk (International Grain Code, 1991).”

**Section 1
General provisions****1.1 Introductory note**

- 2 The text of Section 1.1 is replaced by:

“1.1.1 It should be noted that other international and national regulations exist and that those regulations may recognize all or part of the provisions of this Code. In addition, port authorities and other bodies and organizations should recognize the Code and may use it as a basis for their storage and handling bye-laws within loading and discharge areas.”

1.2 Cargoes listed in this Code

3 The text of paragraph 1.2.2 is replaced by:

“Where a solid bulk cargo is specifically listed in appendix 1 to this Code (schedules for individual solid bulk cargoes), it shall be transported in accordance with the provisions in its schedule in addition to the provisions in sections 1 to 10 of this Code.”

1.4 Application and Implementation of this Code

4 In section 1.4 the first and second paragraphs are numbered 1.4.1 and 1.4.2 and the following new paragraph 1.4.3 is added:

“1.4.3 In certain parts of this Code, a particular action is prescribed, but the responsibility for carrying out the action has not been specifically assigned to any particular person. Such responsibility may vary according to the laws and customs of different countries and the international conventions into which these countries have entered. For the purpose of this Code, it is not necessary to make this assignment, but only to identify the action itself. It remains the prerogative of each Government to assign this responsibility.”

APPENDIX 1 INDIVIDUAL SCHEDULES OF SOLID BULK CARGOES

BROWN COAL BRIQUETTES APPENDIX

STOWAGE AND SEGREGATION

5 In paragraph 5 the words “sources of heat” are replaced by “hot areas”.

LOADING

6 In paragraph 3.2 the word “enclosed” is added after “adjacent” and the following text is added after the last sentence:

“The provisions of this clause need not apply to engine rooms where the engine-room is separated from the cargo space by a gas tight bulkhead with no direct access.”

COAL APPENDIX

Segregation and stowage requirements

- 7 In paragraph 1 the word “Boundaries” is replaced by:
“Unless expressly provided otherwise, boundaries”

General requirements for all types of these cargoes

- 8 In paragraph 2.2 the word “enclosed” is added after the word adjacent and the following text is added after the last sentence:

“The provisions of this clause need not apply to engine-rooms where the engine-room is separated from the cargo space by a gas tight bulkhead with no direct access.”

Special Precautions

- 9 The following new paragraph 3 is added:

“3 Gravity fed self-unloading bulk carrier

3.1 A gravity fed self-unloading bulk carrier means a vessel that has gravity fed systems from the bottom of cargo holds, using gates that may be opened or closed to feed the cargo onto conveyor belts, such belts run in fore and aft direction underneath the holds, from there the cargo is carried by means of conveyor systems to the deck and discharged onto shore with a self-unloading boom that can extend over the shore and has a conveyor belt. This is not applicable for the vessels with unloading systems such as cranes and grabs.

3.2 When this cargo is carried on a gravity fed self-unloading bulk carrier, the following requirements of this appendix need not apply:

- paragraph 1 of “segregation and stowage requirements”; and
- paragraph 9 of “general requirements for all types of these cargoes”.

3.3 Loaded Voyage Procedures for Atmospheric Monitoring of Cargoes

3.3.1 Bulk Coal Cargo Safety Procedures

3.3.1.1 These requirements apply when these cargoes are to be carried on a gravity fed self-unloading bulk carrier. It is recommended that a document, such as a flow chart, describing cargo operations and carriage procedures for these cargoes be provided to the ship by the vessel’s operator.

3.4 Ventilation

3.4.1 When ventilating, it shall be ensured that excess air does not ingress excessively into the body of the cargo of coal as this may eventually promote self heating.

3.4.2 Due to the presence of non-airtight unloading gates at the bottom of the cargo hoppers just above the tunnels, the following methods of ventilation shall be used:

- if methane is detected in the tunnel, it shall be “positive pressure” ventilated (more supply than exhaust in the tunnels to remove methane gas); and
- if carbon monoxide is detected in the tunnel, it shall be “negative pressure” ventilated (more exhaust than supply in the tunnels to remove carbon monoxide). The release of carbon monoxide may be an indication of self-heating.”

Procedures for gas monitoring of coal cargoes

2 Sampling and measurement procedure

10 The following new paragraph 2.7 is added:

“2.7 Measurement in cargo and self-unloading spaces of gravity fed self-unloading bulk carrier

2.7.1 Measurement in unventilated cargo and self-unloading spaces

2.7.1.1 When the shipper has declared that the coal cargo has or may have self-heating characteristics, the holds shall not be ventilated unless otherwise specified in this section.

2.7.1.2 Under normal conditions one measurement per day is sufficient as a precautionary measure. If carbon monoxide levels are higher than 30 ppm then the frequency of measurements shall be increased to at least twice daily, at suitable intervals. Any additional results shall be logged.

2.7.1.3 If carbon monoxide level in any hold indicates a steady rise or reaches 50 ppm a self-heating condition may be developing and the owners of the vessel shall be notified as outlined in the procedures. Above this level, the vessel shall operate on “negative pressure” ventilation, in order to reduce the amount of carbon monoxide. Regular monitoring of carbon monoxide levels shall continue.

2.7.1.4 Persons entering cargo or unloading spaces with carbon monoxide levels higher than 30 ppm shall not do so without self-contained breathing apparatus*.

* Refer to the Recommendation for entering enclosed space aboard ships, adopted by the Organization by resolution A.864(20), as may be amended.

2.7.2 Measurement in ventilated cargo and self-unloading spaces

2.7.2.1 If the presence of methane is indicated by monitor, and such that ventilation is warranted, then a different procedure shall be applied to enable the onset of any possible self-heating to be detected. "Positive pressure" or through ventilation shall be operated to remove the methane.

2.7.2.2 To obtain meaningful data the ventilators and/or ventilation shall be closed for a period before measurements are taken. This period may be chosen to suit the operational requirements of the vessel, but it is recommended that it is not less than four hours. It is vital in the interests of data interpretation that the shutdown time is constant whichever time period is selected. These measurements shall be taken on a daily basis. If the carbon monoxide results exhibit a steady rise, or exceed 50 ppm on any day, the owner shall be notified.

2.7.2.3 In addition the following points shall be considered:

- at no time shall ventilation be shut down when crew members are in the self-unloading spaces;
- special fire-fighting equipment and/or procedures may be necessary for the vessel; and
- establish specific crew training for gravity fed self-unloading bulk carriers."

DIRECT REDUCED IRON (A)

11 The existing schedule **DIRECT REDUCED IRON (A)** is replaced by:

"DIRECT REDUCED IRON (A) Briquettes, hot-moulded

DESCRIPTION

Direct reduced Iron (A) is a metallic grey material, moulded in a briquette form, emanating from a densification process whereby the direct reduced iron (DRI) feed material is moulded at a temperature greater than 650°C and has a density greater than 5,000 kg/m³. Fines and small particles (under 6.35 mm) shall not exceed 5% by weight.

CHARACTERISTICS

ANGLE OF REPOSE	BULK DENSITY (kg/m ³)	STOWAGE FACTOR (m ³ /t)
Not applicable	2,500 to 3,300	0.3 to 0.4 To be verified by the shipper
SIZE	CLASS	GROUP
Approximate size: Length 50 mm to 140 mm Width 40 mm to 100 mm Thickness 20 mm to 50 mm Briquette weight 0.2 to 3.0 kg Fines and small particles: under 6.35 mm	MHB	B

HAZARD

Temporary increase in temperature of about 30°C due to self-heating may be expected after material handling in bulk. The material may slowly evolve hydrogen after contact with water (notably saline water). Hydrogen is a flammable gas that can form an explosive mixture when mixed with air in concentration above 4% by volume. It is liable to cause oxygen depletion in cargo spaces. This cargo is non-combustible or has a low fire-risk.

STOWAGE AND SEGREGATION

“Separate from” goods of class 1 (Division 1.4S), 2, 3, 4 and 5 and class 8 acids in packaged form (see IMDG Code).

“Separate from” solid bulk materials of classes 4 and 5.

“Separate longitudinally by an intervening complete compartment or hold from” goods of class 1 other than Division 1.4S.

Boundaries of compartments where this cargo is carried shall be resistant to fire and passage of liquid.

HOLD CLEANLINESS

The cargo spaces shall be clean, dry and free from salt and residues of previous cargoes. Prior to loading, wooden fixtures such as battens, loose dunnage, debris and combustible materials shall be removed.

WEATHER PRECAUTIONS

This cargo shall be kept as dry as practicable during loading and the voyage. Open storage is acceptable prior to loading. This cargo shall not be loaded onto ships or transferred between ships or barges during precipitation. During loading of this cargo all non-working hatches of the cargo spaces into which this cargo is loaded or to be loaded shall be kept closed. Only when weather permits may non-working hatch covers be left open for a minimum of 1 hour after completion of each pour to allow cooling after cargo handling in bulk.

LOADING

Prior to loading this cargo, the shipper shall provide the master with a certificate issued by a competent person recognized by the National Administration of the port of loading stating that the cargo, at the time of loading, is suitable for shipment and that it conforms with the requirements of this Code; that the quantity of fines and small particles (up to 6.35 mm in size) is no more than 5% by weight; the moisture content is less than 1.0% and the temperature does not exceed 65°C.

This cargo shall not be loaded when the temperature is in excess of 65°C, if its moisture content is in excess of 1.0% or if the quantity of fines and small particles (up to 6.35 mm in size) exceeds 5% by weight.

Appropriate precautions shall be taken during loading in order to have a cargo composed of essentially whole briquettes. The cargo shall be loaded in such a way so as to minimize breakage of briquettes and the additional generation of fines and small particles and concentration of fines in any area of the cargo. The addition of fines and particles less than 6.35 mm or dust in homogenous cargoes of briquettes shall be prohibited.

Trim in accordance with the relevant provisions required under sections 4 and 5 of the Code. Due consideration shall be given to evenly spreading the cargo across the tanktop to minimize the concentration of fines.

The cargo temperature shall be monitored during loading and recorded in a log detailing the temperature for each lot of cargo loaded, a copy of which shall be provided to the master. After loading, a certificate, confirming that throughout the whole consignment the fines and small particles (under 6.35 mm in size) are less than 5% by weight, shall be issued by a competent person recognized by the National Administration of the port of loading.

PRECAUTIONS

The carrier's nominated technical persons or other representatives shall have reasonable access to stockpiles and loading installations for inspection.

Shippers shall provide comprehensive information on the cargo and safety procedures to be followed in the event of emergency. The shipper may also provide advice in amplification of this Code but the advice shall not be contrary thereto in respect of safety.

Where practicable, ballast tanks adjacent to the cargo spaces containing this cargo, other than double-bottom tanks, shall be kept empty. Weather deck closures and hatch covers shall be inspected and tested to ensure integrity and weather tightness which shall be maintained throughout the voyage.

Appropriate precautions shall be taken to protect machinery, equipment and accommodation spaces from the dust of the cargo. Radars and exposed radio communication equipment of the ship shall be protected from the dust of this cargo. Bilge wells of the cargo spaces shall be clean, dry and protected from ingress of the cargo using non-combustible material. Persons, who may be exposed to the dust of the cargo, shall wear protective clothing, goggles or other equivalent dust eye-protection and dust filter masks, as necessary.

During handling of this cargo "NO SMOKING" signs shall be posted on decks and in areas adjacent to cargo spaces, and no naked lights shall be permitted in these areas.

Cargo spaces containing this cargo and adjacent spaces may become oxygen-depleted. Flammable gas may also build up in these spaces. All precautions shall be taken upon entering the cargo and adjacent spaces.

VENTILATION

Surface ventilation only, either natural or mechanical, shall be conducted, as necessary, during the voyage for this cargo. On no account shall air be directed into the body of the cargo. When mechanical ventilation is used, the fans shall be certified as explosion-proof and shall prevent any spark generation thereby avoiding the possibility of ignition of hydrogen air mixture. Suitable wire mesh guards shall be fitted over inlet and outlet ventilation openings. Ventilation shall be such that escaping gases cannot enter living quarters in hazardous concentrations.

CARRIAGE

For quantitative measurements of hydrogen, a suitable detector shall be on board while this cargo is carried. The detector shall be suitable for use in an oxygen depleted atmosphere and of a type certified safe for use in an explosive atmosphere. The concentrations of hydrogen in the cargo spaces carrying this cargo shall be measured regularly during the voyage, and the results of the measurements shall be recorded and kept on board for a minimum of two years. When the monitored hydrogen concentration is higher than 1% (> 25% LEL) by volume, appropriate safety precautions shall be taken in accordance with those procedures provided by the shipper in case of emergency. If in doubt, expert advice shall be sought.

Bilge wells shall be checked regularly for the presence of water. If water is found, it shall be removed by pumping or draining the bilge wells.

Temperature of the cargo shall be taken regularly during the voyage and a record kept on board for a minimum of two years. If the temperature in the cargo space exceeds 65°C, appropriate safety precautions shall be taken in accordance with the procedures provided by the shipper in case of emergency. If in doubt, expert advice shall be sought.

DISCHARGE

The hydrogen concentration in the cargo space shall be measured immediately before any opening action of the hatch covers. If the hydrogen concentration is greater than 1% (> 25% LEL) by volume, all appropriate safety precautions in conformity with the procedures provided by the shipper or the recommendations of the competent authority shall be taken. If in doubt, expert advice shall be sought.

During discharge, a fine spray of fresh water may be applied to this cargo for dust control only when the cargo will be stored in an open area. It is not recommended to apply a fine spray of fresh water to this cargo when it will be stored in an enclosed space or is to be transhipped.

CLEAN-UP

Accumulations of dust from this cargo on deck or in proximity to cargo spaces shall be removed as quickly as possible. Consideration shall be given to carefully cleaning exposed radio communications equipment to which dust from the cargo might adhere, such as radar, radio aerials, VHF installations, AIS and GPS. Hosing with sea water should be avoided.

EMERGENCY PROCEDURES

SPECIAL EMERGENCY EQUIPMENT TO BE CARRIED

Nil

EMERGENCY PROCEDURES

Nil

EMERGENCY ACTION IN THE EVENT OF FIRE

Do not use water. Do not use steam. Do not use CO₂.

Batten down.

The specific procedures in the event of emergency provided by the shipper should be consulted and followed, as appropriate. If in doubt, expert advice should be sought as quickly as possible.

Preparations should be made for grab discharge if serious heating occurs.

MEDICAL FIRST AID

Refer to the Medical First Aid Guide (MFAG), as amended.

DIRECT REDUCED IRON (B)

12 The existing schedule **DIRECT REDUCED IRON (B)** is replaced by:

**“DIRECT REDUCED IRON (B)
Lumps, pellets, cold-moulded briquettes**

DESCRIPTION

Direct Reduced Iron (DRI) (B) is a highly porous, black/grey metallic material formed by the reduction (removal of oxygen) of iron oxide at temperatures below the fusion point of iron. Cold-moulded briquettes are defined as those which have been moulded at a temperature less than 650°C or which have a density of less than 5,000 kg/m³. Fines and small particles under 6.35 mm in size shall not exceed 5% by weight.

CHARACTERISTICS

ANGLE OF REPOSE	BULK DENSITY (kg/m ³)	STOWAGE FACTOR (m ³ /t)
Not applicable	1,750 to 2,000	0.5 to 0.57
SIZE	CLASS	GROUP
Lumps and pellets: Average particle size 6.35 mm to 25 mm. Cold-moulded briquettes: Approximate maximum dimensions 35 mm to 40 mm. Fines and small particles under 6.35 mm up to 5% by weight.	MHB	B

HAZARD

Temporary increase in temperature of about 30°C due to self-heating may be expected after material handling in bulk.

There is a risk of overheating, fire and explosion during transport. This cargo reacts with air and with fresh water or seawater to produce heat and hydrogen. Hydrogen is a flammable gas that can form an explosive mixture when mixed with air in concentrations above 4% by volume. The reactivity of this cargo depends upon the origin of the ore, the process and temperature of reduction, and the subsequent ageing procedures. Cargo heating may generate very high temperatures that are sufficient to ignite the cargo. Build-up of fines may also lead to self-heating, auto-ignition and explosion. Oxygen in cargo spaces and enclosed spaces may be depleted.

STOWAGE AND SEGREGATION

“Separate from” goods of classes 1 (Division 1.4S), 2, 3, 4 and 5, and class 8 acids in packaged form (See IMDG Code).

“Separate from” solid bulk materials of classes 4 and 5.

Goods of class 1, other than Division 1.4S, shall not be carried in the same ship.

Boundaries of compartments where this cargo is carried shall be resistant to fire and passage of liquid.

HOLD CLEANLINESS

The cargo spaces shall be clean, dry and free from salt and residues of previous cargoes. Prior to loading, wooden fixtures such as battens, loose dunnage, debris and combustible materials shall be removed.

WEATHER PRECAUTIONS

The cargo shall be kept dry at all times during storage, before and during loading, and during transportation. The cargo shall not be loaded onto ships, or transferred between ships or barges, during precipitation. During loading of this cargo, all non-working hatches of cargo spaces into which this cargo is loaded, or is to be loaded, shall be kept closed.

LOADING

Prior to loading, the terminal shall ensure that the conveyor belts used for loading this cargo contain no accumulation of water or other substances. Each time cargo operations are commenced or restarted, particularly after rain or washing down, any loading belt shall be operated empty and not over a ship's cargo space.

Prior to loading, an ultrasonic test or another equivalent method with a suitable instrument shall be conducted to ensure weather tightness of the hatch covers and closing arrangements and all readings shall confirm weather tightness.

Prior to loading this cargo, the shipper shall provide the master with a certificate issued by a competent person recognized by the National Administration of the port of loading stating that the cargo, at the time of loading, is suitable for shipment, and that it conforms with the requirements of this Code; that the quantity of fines and small particles is no more than 5% by weight; that the moisture content is less than 0.3%; and that the temperature does not exceed 65°C. This certificate shall state the date of manufacture for each lot of cargo to be loaded in order to meet the loading criteria in regards to ageing and material temperature.

The cargo shall not be accepted for loading when its temperature is in excess of 65°C or if its moisture content is in excess of 0.3% or if the quantity of fines and small particles exceeds 5% by weight. Any cargo that has been wetted, or is known to have been wetted, shall not be loaded into any cargo space.

Prior to loading, provision shall be made to introduce a dry, inert gas at tank top level so that the inert gas purges the air from the cargo and fills the free volume above. Nitrogen is preferred for this purpose. All vents, accesses and other openings such as coaming drains that could allow the inert atmosphere to be lost from cargo spaces carrying this cargo shall be closed and sealed.

The cargo shall be loaded in such a way as to minimize both the breakage of the cold-moulded briquettes, pellets, lumps and the additional generation of fines and the concentrating of fines in any area of the cargo. This cargo shall be homogenous with no added waste. The addition of DRI particles, fines or dust in this cargo shall be prohibited.

Due consideration shall be given to evenly spreading the cargo across the tank top to minimize the concentration of fines. Trim in accordance with the relevant provisions required under sections 4 and 5 of the Code.

The cargo temperature and moisture shall be monitored during loading and recorded in a log detailing the temperature and moisture for each lot of cargo loaded, a copy of which shall be provided to the master. After loading, a certificate shall be issued by a competent person recognized by the National Administration of the port of loading confirming that throughout the whole consignment fines and small particles (under 6.35 mm size) are less than 5% by weight, that the moisture content has not exceeded 0.3% and the temperature does not exceed 65°C.

On completion of loading of a cargo space, it shall be immediately closed and sealed. Sufficient inert gas shall then be introduced to achieve an oxygen concentration less than 5% throughout the cargo space.

PRECAUTIONS

Due consideration shall be given to the possibility of moisture inside the cargo pile in order to avoid loading of wet cargo or a wet part of the cargo recognizing that the bottom of the pile can be wet even though the surface of cargo pile looks dry. The carrier's nominated technical persons or other representatives shall have reasonable access to stockpiles and loading installations for inspection.

Prior to shipment, the cargo shall be aged for at least 3 days, or treated with an air-passivating technique, or another equivalent method, that reduces the reactivity to the same level as the aged product. Such aging process shall be approved by the competent authority that shall also provide a certificate to that effect.

Shippers shall provide comprehensive information on the cargo and safety procedures to be followed in the event of emergency. This advice may be an amplification of this Code, but shall not be contrary thereto in respect of safety.

Where practicable, ballast tanks adjacent to the cargo spaces containing this cargo, other than double-bottom tanks, shall be kept empty. Weather tightness shall be maintained throughout the voyage. Bilge wells of the cargo spaces shall be clean, dry and protected from ingress of the cargo using non-combustible material.

Due consideration shall be given to protecting equipment, machinery and accommodation spaces from the dust of the cargo. Radars and exposed radio communication equipment of ships which carry this cargo shall be protected from the dust of this cargo. Persons who may be exposed to the dust of the cargo shall wear protective clothing, goggles or other equivalent dust eye-protection and dust filter masks, as necessary.

During any handling of this cargo “NO SMOKING” signs shall be posted on decks and in areas adjacent to cargo spaces, and no naked lights shall be permitted in these areas. Smoking, burning, cutting, chipping, grinding or other sources of ignition shall not be allowed in the vicinity of cargo spaces containing this cargo at any time.

Cargo spaces containing this cargo and adjacent spaces may become oxygen-depleted. Flammable gas may also build up in these spaces. All precautions shall be taken when entering the cargo spaces.

The ship shall be provided with the means to ensure that the requirement of this Code to maintain the oxygen concentration below 5% can be achieved throughout the voyage. The ship’s fixed CO₂ fire-fighting system shall not be used for this purpose. Consideration shall be given to providing the vessel with the means to top up the cargo spaces with additional supplies of inert gas taking into account the duration of the voyage.

The ship shall be provided with the means for reliably measuring the temperatures at several points within the stow, and determining the concentrations of hydrogen and oxygen in the cargo space atmosphere on voyage whilst minimizing as far as practicable the loss of the inert atmosphere.

Any cargo that has already been loaded into a cargo space and which subsequently becomes wetted, or in which reactions have started, shall be discharged without delay.

The ship shall not sail until the master and a competent person recognized by the National Administration of the port of loading are satisfied:

- .1 that all loaded cargo spaces are correctly sealed and inerted;
- .2 that the temperature of the cargo has stabilized at all measuring points and that the temperature does not exceed 65°C; and
- .3 that at the end of the inerting process, the concentration of hydrogen in the free space of the holds has stabilized and does not exceed 0.2% by volume.

VENTILATION

The cargo spaces carrying this cargo shall remain tightly sealed and the inert condition maintained during the voyage.

CARRIAGE

For quantitative measurements of hydrogen and oxygen, suitable detectors shall be on board while this cargo is carried. The detectors shall be suitable for use in an oxygen depleted atmosphere and of a type certified safe for use in explosive atmospheres. The concentrations of hydrogen and oxygen in the cargo spaces carrying this cargo shall be measured at regular intervals during voyage, and the results of the measurements shall be recorded and kept on board for a minimum of two years.

The oxygen concentration in the cargo spaces carrying this cargo shall be maintained at less than 5% throughout the duration of the voyage. When the monitored hydrogen concentration is higher than 1% (> 25% LEL) by volume, appropriate safety precautions shall be taken in accordance with those procedures provided by the shipper in the event of emergency. If in doubt, expert advice shall be sought.

Cargo temperatures shall be taken at regular intervals during voyage and the results of the measurements shall be recorded and kept on board for a minimum of two years. If the temperature in the cargo space exceeds 65°C, appropriate safety precautions shall be taken in accordance with the procedures provided by the shipper in the event of emergency. If in doubt, expert advice shall be sought.

Bilge wells shall be checked regularly for the presence of water. If water is found, it shall be removed by pumping or draining the bilge wells. Consideration shall be given to increasing the frequency of cargo monitoring following periods of bad weather. All measurements shall be taken so as to minimize as far as practicable the loss of inert gas from the cargo spaces.

DISCHARGE

The hydrogen concentration in the cargo space shall be measured immediately before any opening action of the hatch covers. If the hydrogen concentration is greater than 1% (> 25% LEL) by volume, all appropriate safety precautions in conformity with the procedures provided by the shipper or the recommendations of the competent authority shall be taken. If in doubt, expert advice shall be sought.

During precipitation, all cargo operations shall be suspended and holds containing cargo shall be closed. Monitoring for hydrogen in those holds containing cargo shall be resumed.

CLEAN-UP

Accumulations of dust from this cargo on deck or in proximity to cargo spaces shall be removed as quickly as possible. Hosing with sea water should be avoided. Consideration shall be given to carefully cleaning exposed radio communications equipment to which dust from the cargo might adhere, such as radar, radio aerials, VHF installations, AIS and GPS.

EMERGENCY PROCEDURES

SPECIAL EMERGENCY EQUIPMENT TO BE CARRIED

Nil

EMERGENCY PROCEDURE

Nil

EMERGENCY ACTION IN THE EVENT OF FIRE

In the event of emergency, the specific procedures provided by the shipper should be consulted and followed, as appropriate.

Do not use CO₂. Do not use water. Do not use steam.

Batten down and reinstate the inert atmosphere using supplies or equipment if available on board. Increase the frequency of monitoring. If temperature and/or hydrogen concentration steadily rise, seek expert advice as quickly as possible.

If the temperature in the cargo space exceeds 120°C, the ship should make for the nearest appropriate port to discharge the cargo affected. Preparations should be made for grab discharge.

If additional nitrogen gas is available, the use of this gas will assist in keeping the oxygen concentration down and may contain the fire and prevent an explosive atmosphere if hydrogen is produced.

Flooding with water of the affected cargo hold should only be contemplated as a last resort, always taking the stability and strength of the ship into account.

MEDICAL FIRST AID

Refer to the medical First Aid Guide (MFAG), as amended.

”

DIRECT REDUCED IRON (C)

13 The following new schedule is added after the schedule for **DIRECT REDUCED IRON (B)**:

**“DIRECT REDUCED IRON (C)
(By product fines)**

DESCRIPTION

Direct Reduced Iron (DRI) (C) is a porous, black/grey metallic material generated as a by-product of the manufacturing and handling processes of DRI (A) and/or DRI (B). The density of DRI (C) is less than 5,000 kg/m³.

CHARACTERISTICS

ANGLE OF REPOSE	BULK DENSITY (kg/m ³)	STOWAGE FACTOR (m ³ /t)
Not applicable	1,850 to 3,300	0.30 to 0.54
SIZE	CLASS	GROUP
Fines and small particles with an average size less than 6.35 mm, no particles to exceed 12 mm	MHB	B

HAZARD

Temporary increase in temperature of about 30°C due to self-heating may be expected after material handling in bulk.

There is a risk of overheating, fire and explosion during transport. This cargo reacts with air and with fresh water or seawater, to produce hydrogen and heat. Hydrogen is a flammable gas that can form an explosive mixture when mixed with air in concentrations above 4% by volume. Cargo heating may generate very high temperatures that are sufficient to lead to self-heating, auto-ignition and explosion.

Oxygen in cargo spaces and in enclosed adjacent spaces may be depleted. Flammable gas may also build up in these spaces. All precautions shall be taken when entering cargo and enclosed adjacent spaces.

The reactivity of this cargo is extremely difficult to assess due to the nature of the material that can be included in the category. A worst case scenario should therefore be assumed at all times.

STOWAGE AND SEGREGATION

“Separate from” goods of classes 1 (Division 1.4S), 2, 3, 4 and 5, and class 8 acids in packaged form (see IMDG Code).

“Separate from” solid bulk materials of classes 4 and 5.

Goods of class 1, other than Division 1.4S, shall not be carried in the same ship. Boundaries of compartments where this cargo is carried shall be resistant to fire and passage of liquid.

HOLD CLEANLINESS

Cargo spaces shall be clean, dry and free of salt and residues of previous cargoes. Prior to loading, wooden fixtures such as battens, loose dunnage, debris and combustible materials shall be removed.

WEATHER PRECAUTIONS

The cargo shall be kept within the permissible moisture content indicated in this schedule at all times during loading, and during transportation.

This cargo shall not be loaded onto ships, or transferred between ships or barges, during ANY precipitation. During loading of this cargo, all non-working hatches of cargo spaces into which this cargo is loaded, or is to be loaded, shall be kept closed.

LOADING

Prior to loading, the terminal shall ensure that the conveyor belts and all other equipment used for loading this cargo contain no accumulation of water or other substances. Each time cargo operations are commenced or restarted, particularly after rain or washing down, any loading belt shall be operated empty and not over a ship's cargo space.

Prior to loading, an ultrasonic test or another equivalent method with a suitable instrument shall be conducted to ensure weather tightness of the hatch covers and closing arrangements and all readings shall confirm weather tightness.

Prior to loading this cargo, the shipper shall provide the master with a certificate issued by a competent person recognized by the National Administration of the port of loading stating that the cargo, at the time of loading, is suitable for shipment; that it conforms with the requirements of this Code; that the moisture content is less than 0.3%; and the temperature does not exceed 65°C. This certificate shall state that the cargo meets the loading criteria in regards to ageing and material temperature.

The cargo shall not be accepted for loading when its temperature is in excess of 65°C or if its moisture content is in excess of 0.3%. Any cargo that has been wetted, or is known to have been wetted, shall not be loaded into any cargo space.

Trim in accordance with the relevant provisions required under sections 4 and 5 of the Code.

The cargo temperature shall be monitored during loading and recorded in a log detailing the temperature for each lot of cargo loaded, a copy of which shall be provided to the master. After loading, a certificate shall be issued by a competent person recognized by the national Administration of the port of loading confirming that throughout the whole consignment of fines and small particles the moisture content has not exceeded 0.3% and the temperature does not exceed 65°C.

On completion of loading of a cargo space it shall be immediately closed and sealed. Sufficient inert gas shall then be introduced to achieve an oxygen concentration less than 5% throughout the cargo space.

PRECAUTIONS

Due consideration shall be given to the possibility of moisture inside the cargo pile in order to avoid loading of wet cargo or a wet part of the cargo recognizing that the bottom of the pile can be wet even though the surface of cargo pile looks dry. The carrier's nominated technical persons or other representatives shall have reasonable access to stockpiles and loading installations for inspection.

Prior to shipment, the cargo shall be aged for at least 30 days and a certificate confirming this shall be issued by a competent person recognized by the national Administration of the port of loading.

Shippers shall provide to the master prior to loading comprehensive information on the cargo and safety procedures to be followed in the event of emergency. This advice may be an amplification of this Code, but shall not be contrary thereto in respect of safety.

Where practicable, ballast tanks adjacent to the cargo spaces containing this cargo, other than double-bottom tanks, shall be kept empty. Weather tightness shall be maintained throughout the voyage. Bilge wells of the cargo spaces shall be clean, dry and protected from ingress of the cargo using non-combustible material. The introduction of moisture and accumulation of condensation in the cargo spaces shall be avoided.

Appropriate precautions shall be taken to protect equipment, machinery and accommodation spaces from the dust of the cargo. Radars and exposed radio communication equipment of ships which carry this cargo shall be protected from the dust of this cargo. Persons who may be exposed to the dust of the cargo shall wear protective clothing, goggles or other equivalent dust eye-protection and dust filter masks, as necessary.

During any handling of this cargo "NO SMOKING" signs shall be posted on decks and in areas adjacent to cargo spaces, and no naked light shall be permitted in these areas. Smoking, burning, cutting, chipping, grinding or other sources of ignition shall not be allowed in the vicinity of cargo spaces containing this cargo at any time.

Cargo spaces containing this cargo and adjacent spaces may become oxygen-depleted. No person shall enter a loaded cargo space or an enclosed adjacent space unless the space has been ventilated and the atmosphere tested and found to be gas-free and have sufficient oxygen to support life. Notwithstanding, emergency entry may be permitted without ventilation, testing, or both provided that the entry into the space is undertaken only by trained personnel wearing self-contained breathing apparatus under the supervision of a responsible officer and no source of ignition is introduced into the space.

Prior to loading, provision shall be made to introduce a dry, inert gas at tank top level so that the inert gas purges the air from the cargo and fills the free volume above. Nitrogen is preferred for this purpose. All vents, accesses and other openings such as coaming drains that could allow the inert atmosphere to be lost from cargo spaces carrying this cargo shall be closed and sealed.

The ship shall be provided with the means to ensure that a requirement of this Code to maintain the oxygen concentration below 5% can be achieved and maintained throughout the voyage. The ship's fixed CO₂ fire-fighting system shall not be used for this purpose. Consideration shall be given to providing the vessel with the means to top up the cargo spaces with additional supplies of inert gas taking into account the duration of the voyage.

The ship shall be provided with the means for reliably measuring the temperatures at several points within the stow and determining the concentrations of hydrogen and oxygen in the cargo space atmosphere on voyage. Appropriate precautions shall be taken to minimize as far as practicable the loss of the inert atmosphere.

Any cargo that has already been loaded into a cargo space and which subsequently is exposed to additional fresh or sea water over its natural moisture content and becomes wetted, or in which reactions have started and its temperature has exceeded 120°C, shall be discharged without delay.

On completion of loading of a cargo space it shall be immediately closed and sealed. Sufficient inert gas shall then be introduced to achieve an oxygen concentration less than 5% throughout the cargo space.

The ship shall not sail until the master and a competent person recognized by the national Administration of the port of loading are satisfied:

- .1 that all loaded cargo spaces are correctly sealed and inerted;
- .2 that the temperature of the cargo has stabilized at all measuring points and that the temperature does not exceed 65°C; and
- .3 that at the end of the inerting process, the concentration of hydrogen in the free space of the holds has stabilized and does not exceed 0.2% by volume.

VENTILATION

The cargo spaces carrying this cargo shall remain tightly sealed and the inert condition maintained during the voyage.

CARRIAGE

For quantitative measurements of hydrogen and oxygen, suitable detectors shall be on board while this cargo is carried. The detectors shall be suitable for use in an oxygen depleted atmosphere and of a type certified safe for use in explosive atmospheres. The concentrations of hydrogen and oxygen in the cargo spaces carrying this cargo shall be measured at regular intervals during voyage, and the results of the measurements shall be recorded and kept on board for a minimum of two years.

The oxygen concentration in the cargo spaces carrying this cargo shall be maintained at less than 5% throughout the duration of the voyage by topping up with inert gas.

Cargo temperatures shall be taken at regular intervals during the voyage and the results of the measurements shall be recorded and kept on board for a minimum of two years. If the temperature in the cargo space exceeds 65°C or the monitored hydrogen concentration exceeds 1% (> 25% LEL) by volume, appropriate safety precautions shall be taken in accordance with the procedures provided by the shipper in the event of emergency. If in doubt, expert advice shall be sought.

Bilge wells shall be checked regularly for the presence of water. If water is found, it shall be removed by pumping or draining the bilge wells. Consideration shall be given to increasing the frequency of cargo monitoring following periods of bad weather. All measurements shall be taken so as to minimize as far as practicable the loss of inert gas from the cargo spaces.

DISCHARGE

The hydrogen concentration in the cargo space shall be measured immediately before any opening action of the hatch covers. If the hydrogen concentration is greater than 1% (> 25% LEL) by volume, all appropriate safety precautions in conformity with the procedures provided by the shipper or the recommendations of the competent authority shall be taken. If in doubt, expert advice shall be sought.

During precipitation, all cargo operations shall be suspended and holds containing cargo shall be closed. Monitoring for hydrogen of those holds containing cargo shall be resumed.

CLEAN-UP

Accumulations of dust from this cargo on deck or in proximity to cargo spaces shall be removed as quickly as possible. Hosing with seawater shall be avoided. Consideration shall be given to carefully cleaning exposed radiocommunications equipment to which dust from the cargo might adhere, such as radar, radio aerials, VHF installations, AIS and GPS.

EMERGENCY PROCEDURES

SPECIAL EMERGENCY EQUIPMENT TO BE CARRIED

Nil

EMERGENCY PROCEDURE

Nil

EMERGENCY ACTION IN THE EVENT OF FIRE

In the event of emergency, the specific procedures provided by the shipper should be consulted and followed, as appropriate.

Do not use CO₂. Do not use water. Do not use steam.

Batten down and reinstate the inert atmosphere using supplies or equipment if available on board. Increase the frequency of monitoring. If temperature and/or hydrogen concentration steadily rise, seek expert advice as quickly as possible.

If the temperature in the cargo space exceeds 120°C, the ship should make for the nearest appropriate port to discharge the affected cargo. Preparations should be made for grab discharge.

If additional nitrogen gas is available, the use of this gas will assist in keeping the oxygen concentration down and may contain the fire and prevent an explosive atmosphere if hydrogen is produced.

Flooding with water of the affected cargo hold should only be contemplated as a last resort, always taking the stability and strength of the ship into account.

MEDICAL FIRST AID

Refer to the medical First Aid Guide (MFAG), as amended.

”

SULPHUR (formed, solid)

14 The following new schedule is added after the schedule for **SULPHATE OF POTASH AND MAGNESIUM**:

“SULPHUR (formed, solid)

DESCRIPTION

A co-product recovered from sour gas processing or oil refinery operations that has been subjected to a forming process that converts sulphur from a molten state into specific solid shapes (e.g., prills, granules, pellets, pastilles or flakes); bright yellow in colour; odourless. This schedule is not applicable to crushed, lump and coarse-grained sulphur (see **SULPHUR UN 1350**), or to co-products from sour gas processing or oil refinery operations NOT subjected to the above-described forming process.

CHARACTERISTICS

ANGLE OF REPOSE	BULK DENSITY (kg/m ³)	STOWAGE FACTOR (m ³ /t)
Not applicable	900 to 1,350	0.74 to 1.11
SIZE	CLASS	GROUP
approx. 1 mm to 10 mm	Not applicable	C

HAZARD

This cargo is non-combustible or has a low fire risk. If involved in a fire, cargo may generate harmful gases.

When handled and shipped in accordance with the provisions of the schedule, this cargo poses no corrosion or dust hazards for human tissue or vessel.

STOWAGE AND SEGREGATION

“Separated from” strong oxidizers, such as fluorine, chlorine, chlorates, nitrates (nitric acid), peroxides, liquid oxygen, permanganates, dichromates or the like.

HOLD CLEANLINESS

Clean and dry as relevant to the hazards of the cargo. Holds shall not be washed with sea water.

WEATHER PRECAUTIONS

No special requirements.

LOADING

Trim in accordance with the relevant provisions required under sections 4 and 5 of the Code. Appropriate precautions shall be taken to minimize impact, abrasion and crushing when handling to prevent dust from forming. Standard application of surfactants* inhibits air borne dust from forming.

PRECAUTIONS

Protect machinery, accommodations and equipment from small particles or any dust if formed. Persons involved in cargo handling shall wear protective clothing, goggles and dust filter masks. Holds including trimming plates and tank tops shall be treated with effective, commercially available protective coating or limewashed to avoid any potential corrosive reaction between sulphur, water and steel. Upper sections shall have a sound coating of paint. Hatches shall be sealed tightly.

VENTILATION

Surface ventilation only, either natural or mechanical, shall be conducted, as necessary, during the voyage for this cargo.

CARRIAGE

As a fine spray of fresh water or surfactant is added during loading, bilges shall be sounded and pumped out as necessary throughout the voyage.

DISCHARGE

Appropriate safety precautions shall be taken when entering the cargo spaces, particularly in the area of the bottom layers of sulphur in ships hold, taking into account the recommendations developed by the Organization.[†]

Appropriate precautions shall be taken to minimize impact, abrasion and crushing when handling to prevent dust from forming.

CLEAN-UP

Persons involved in clean-up shall wear hard hats, protective goggles, long-sleeve shirts, long pants, and impervious gloves. Use of approved respirators shall be considered. Holds shall be thoroughly washed using only fresh water following discharge.

Appropriate safety precautions shall be taken when entering the cargo spaces, taking into account the recommendations developed by the Organization.[†]

* A fine water-based spray that promotes the binding of smaller particles to larger particles.

† Refer to Recommendations for entering enclosed spaces aboard ships, adopted by the Organization by resolution A.864(20).

SULPHUR UN 1350

15 In the schedule title the text “crushed,” is added before the words “lump and coarse grained”.

CHARACTERISTICS

16 In paragraph **SIZE** the text is replaced by:

“Particles or lumps of any size”

WOOD PELLETS

WEATHER PRECAUTIONS

17 The following text is added after the last sentence:

“There is a high risk of renewed oxygen depletion and carbon monoxide-formation in previously ventilated adjacent spaces after such closure.”

PRECAUTIONS

18 The existing text is replaced by:

“Entry of personnel into cargo and adjacent confined spaces shall not be permitted until tests have been carried out and it has been established that the oxygen content and carbon monoxide levels have been restored to the following levels: oxygen 20.7% and carbon monoxide < 100 ppm. If these conditions are not met, additional ventilation shall be applied to the cargo hold or adjacent confined spaces and re-measuring shall be conducted after a suitable interval.

An oxygen and carbon monoxide meter shall be worn and activated by all crew when entering cargo and adjacent enclosed spaces.”

VENTILATION

19 The following text is added after the existing sentence:

“Ventilation of enclosed spaces adjacent to a cargo hold before entry may be necessary even if these spaces are apparently sealed from the cargo hold.”

EMERGENCY PROCEDURES
SPECIAL EMERGENCY EQUIPMENT TO BE CARRIED

- 20 The existing text is replaced by:

“Self-contained breathing apparatus and combined or individual oxygen and carbon monoxide meters should be available.”

WOODCHIPS

HAZARD

- 21 The following text is added after the last sentence:

“A condition with complete depletion of oxygen may be present in less than 48 hours.”

PRECAUTIONS

- 22 The existing text is replaced by:

“Entry of personnel into cargo and adjacent confined spaces should not be permitted until tests have been carried out and it has been established that the oxygen level is 20.7%. If this condition is not met, additional ventilation should be applied to the cargo hold or adjacent enclosed spaces and re-measuring shall be conducted after a suitable interval.

An oxygen meter shall be worn and activated by all crew when entering cargo and adjacent enclosed spaces.

In dry weather, dust which settles on deck will dry out quickly and is easily ignited. Appropriate precautions shall be taken to prevent fire.”

VENTILATION

- 23 The existing text is replaced by:

“Ventilation of enclosed spaces adjacent to a cargo hold before entry may be necessary even if these spaces are apparently sealed from the cargo hold.”

EMERGENCY PROCEDURES
SPECIAL EMERGENCY EQUIPMENT TO BE CARRIED

- 24 The existing text is replaced by:

“Self-contained breathing apparatus and oxygen meters should be available.”

ANNEX 6

DRAFT CSC CIRCULAR

**INTERNATIONAL CONVENTION FOR SAFE CONTAINERS (CSC), 1972,
AS AMENDED**

**Amendments to the Guidance on serious structural deficiencies in containers
(CSC/Circ.134)**

1 The Maritime Safety Committee, at its [eighty-sixth session (... to... May 2009)], having considered a proposal by the Sub-Committee on Dangerous Goods, Solid Cargoes and Containers, at its thirteenth session, approved the amendment to Guidance on structural deficiencies in containers, set out in the annex.

2 Administrations are invited to bring the annexed amendments to the attention of the parties concerned.

ANNEX

**AMENDMENTS TO THE GUIDANCE ON SERIOUS STRUCTURAL
DEFICIENCIES IN CONTAINERS (CSC/Circ.134)**

The existing text of the column SERIOUS STRUCTURAL DEFICIENCY and row “Corner and intermediate fittings (Castings)” in the table in paragraph 1 is replaced by:

“Missing corner fittings, any through cracks or tears in the fitting, any deformation of the fitting that precludes full engagement of securing or lifting fittings, any deformation of the fitting beyond 5 mm from its original plane, any aperture width greater than 66 mm, any aperture length greater than 127 mm, any reduction in thickness of the plate containing the top aperture that makes it less than 23 mm thick or any weld separation of adjoining components in excess of 50 mm in length.”

ANNEX 7

**PROPOSED REVISED WORK PROGRAMME OF THE SUB-COMMITTEE
AND PROVISIONAL AGENDA FOR DSC 14**

PROPOSED REVISED WORK PROGRAMME OF THE SUB-COMMITTEE

		Target completion date/number of sessions needed for completion	Reference
1	Harmonization of the IMDG Code with the UN Recommendations on the Transport of Dangerous Goods <i>Strategic direction: 1.3</i> <i>High-level action: 1.3.5</i> <i>Planned output: 1.3.5.1</i>	Continuous	MSC 63/23, paragraph 10.6
2	Reports on incidents involving dangerous goods or marine pollutants in packaged form on board ships or in port areas <i>Strategic direction: 12.3</i> <i>High-level action: 12.3.1</i> <i>Planned output: -</i>	Continuous	CDG 45/22, section 11 and paragraph 20.2; DSC 13/20, section 6
3	Amendments to the IMSBC Code, including evaluation of properties of solid bulk cargoes <i>Strategic direction: 5.2</i> <i>High-level action: 5.2.3</i> <i>Planned output: 5.2.3.1</i>	Continuous	BC 34/17, section 3; DSC 13/20 section 4
4	Casualty analysis (coordinated by FSI) <i>Strategic direction: 12.1</i> <i>High-level action: 12.1.2</i> <i>Planned output: 12.1.2.1 to .2</i>	Continuous	MSC 70/23, paragraphs 9.17 and 20.4; DSC 13/20, section 6

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- Notes:**
- 1 “H” means 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 Strike-out text indicates proposed deletions and shaded text shows proposed additions and changes.
 - 3 Items printed in bold letters have been selected for the provisional agenda for DSC 14.

		Target completion date/number of sessions needed for completion	Reference
H.1	Amendment (35-10) to the IMDG Code and supplements <i>Strategic direction:</i> 5.2 <i>High-level action:</i> 5.2.3 <i>Planned output:</i> 5.2.3.1	2009	DSC 3/15, paragraph 12.6; DSC 13/20, section 3
H.2	Amendments to the CSS Code and associated recommendations <i>Strategic direction:</i> 5.2 <i>High-level action:</i> 5.2.3 <i>Planned output:</i> 5.2.3.1	2008 2009	MSC 78/26, paragraph 24.15.3; DSC 13/20, section 8
H.3	Extension Review of the BLU Code to include grain <i>Strategic direction:</i> 5.2 <i>High-level action:</i> 5.2.3 <i>Planned output:</i> -	2008 2009	MSC 79/23, paragraph 20.7; DSC 13/20, section 7
H.4	Guidance on providing safe working conditions for securing of containers <i>Strategic direction:</i> 5.2 <i>High-level action:</i> 5.2.3 <i>Planned output:</i> 5.2.3.2	2008	MSC 80/24, paragraph 21.8; DSC 12/19, section 10
H.5 H.4	Review of the Recommendations on the safe use of pesticides in ships <i>Strategic direction:</i> 5.2 <i>High-level action:</i> 5.2.3 <i>Planned output:</i> 5.2.3.2	2008 2009	DSC 10/17, paragraph 4.23; DSC 13/20, section 9
H.6 H.5	Guidance on protective clothing <i>Strategic direction:</i> 5.2 <i>High-level action:</i> 5.2.3 <i>Planned output:</i> 5.2.3.2	2008 2009	MSC 81/25, paragraph 23.8; DSC 13/20, section 10
H.7 H.6	Revision of the Code of Safe Practice for Ships Carrying Timber Deck Cargoes <i>Strategic direction:</i> 5.2 <i>High-level action:</i> - <i>Planned output:</i> -	2010	MSC 82/24, paragraph 21.11; DSC 13/20, section 11

		Target completion date/number of sessions needed for completion	Reference
H.8	Form and procedure for approval of the Cargo Securing Manual — Strategic direction: 5.2 — High-level action: 5.2.3 — Planned output: 5.2.3.2	2008	MSC 82/24, paragraph 21.12
H.9 H.7	Stowage of water-reactive materials (in cooperation with FP as necessary) <i>Strategic direction:</i> 5.2 <i>High-level action:</i> 5.2.3 <i>Planned output:</i> -	2009	MSC 83/28, paragraph 25.12; DSC 13/20, section 13
H.10 H.8	Amendments to the International Convention for Safe Containers, 1972 and associated circulars <i>Strategic direction:</i> 5.2 <i>High-level action:</i> 5.2.3 <i>Planned output:</i> 5.2.3.1	2009	DSC 12/19, section 16; MSC 83/28, paragraph 25.13.1; DSC 13/20, section 14
H.11 H.9	Review of the Guidelines for packing of cargo transport units <i>Strategic direction:</i> 5.2 <i>High-level action:</i> 5.2.3 <i>Planned output:</i> 5.2.3.2	2009	DSC 12/19, section 16; MSC 83/28, paragraph 25.13.2; DSC 13/20, section 15
H.10	Amendments to MARPOL Annex III <i>Strategic direction:</i> 5.2 <i>High-level action:</i> 5.2.3 <i>Planned output:</i> 5.2.3.1	2009	DSC 13/20, section 16
H.11	Revision of the Recommendations for entering enclosed spaces aboard ships <i>Strategic direction:</i> 5.2 <i>High-level action:</i> 5.2.3 <i>Planned output:</i> 5.2.3.2	2010	DSC 13/20, section 16

		Target completion date/number of sessions needed for completion	Reference
L.1	Review of documentation requirements for dangerous goods in packaged form <i>Strategic direction:</i> 5.2 <i>High-level action:</i> 5.2.3 <i>Planned output:</i> 5.2.3.1	2009	MSC 84/24, paragraph 22.9; DSC 13/20, section 19
L.2	Consideration for the efficacy of Container Inspection Programme <i>Strategic direction:</i> 5.2 <i>High-level action:</i> 5.2.3 <i>Planned output:</i> 5.2.3.1	2 sessions 2010	MSC 84/24, paragraph 22.10

PROPOSED PROVISIONAL AGENDA FOR DSC 14*

Opening of the session

- 1 Adoption of the agenda
- 2 Decisions of other IMO bodies
- 3 Amendments to the IMDG Code and supplements, including harmonization of the IMDG Code with the UN Recommendations on the transport of dangerous goods
 - .1 harmonization of the IMDG Code with the UN Recommendations on the transport of dangerous goods
 - .2 amendment (35-10) to the IMDG Code and supplements
- 4 Amendments to the IMSBC Code, including evaluation of properties of solid bulk cargoes
- 5 Amendments to the CSS Code and associated recommendations
- 6 Casualty and incident reports and analysis
- 7 Review of the BLU Code
- 8 Review of the Recommendations on the safe use of pesticides in ships
- 9 Guidance on protective clothing
- 10 Revision of the Code of Safe Practice for Ships Carrying Timber Deck Cargoes
- 11 Stowage of water-reactive materials
- 12 Amendments to the International Convention for Safe Containers, 1972 and associated circulars
- 13 Review of the Guidelines for packing of cargo transport units
- 14 Review of documentation requirements for dangerous goods in packaged form
- 15 Amendments to MARPOL Annex III
- 16 Revision of the Recommendations for entering enclosed spaces aboard ships

* Agenda items do not necessarily indicate priority.

- 17 Consideration for the efficacy of Container Inspection Programme
- 18 Work programme and agenda for DSC 15
- 19 Election of Chairman and Vice-Chairman for 2010
- 20 Any other business
- 21 Report to the Maritime Safety Committee

ANNEX 8

**STATUS OF PLANNED OUTPUTS IN THE HIGH-LEVEL ACTION PLAN FOR THE 2008-2009
BIENNIUM RELATING TO THE SUB-COMMITTEE'S WORK**

Strategic Directions (SDs) (A.989(25))		High-level Actions (HLAs)		Planned outputs for 2008-2009	
ENHANCING THE STATUS AND EFFECTIVENESS OF IMO					
1	IMO is the primary international forum for technical matters of all kinds affecting international shipping and legal matters related thereto. An inclusive and comprehensive approach to such matters will be a hallmark of IMO. In order to maintain that primacy, it will:	1.1	Further develop its role in maritime affairs <i>vis-à-vis</i> other intergovernmental organizations, so as to be able to deal effectively and comprehensively with complex cross-agency issues	1.1.2	Co-operate with the United Nations and other international bodies on matters of mutual interest
				1.1.2.3	Policy input or guidance issued to or on: Safety and security topics (MSC): - IAEA: development of carriage requirements for class 7 radioactive material Status: DSC 13 progressed the matter. - UN Sub-Committee on Dangerous Goods: harmonization of multimodal transport of dangerous goods Status: Ongoing. The Secretariat will attend the next meeting of the UN Sub-Committee in December 2008.
		1.3	Actively seek to reap synergies and avoid duplication of efforts made by other UN agencies in shipping matters	1.3.5	Harmonize IMO instruments with other relevant international instruments, as necessary
				1.3.5.1	Harmonized provisions relating to the safe, secure and efficient carriage of dangerous goods following participation in the activities of UN CETDG and GHS, and IAEA (MSC) Status: Ongoing.
<i>The related performance indicators are: 1, 2, 3, 16, 17 and 19</i>					
2	IMO will foster global compliance with its instruments governing international shipping and will promote their uniform implementation by Member States			2.1.1	Monitor and improve conventions, etc., and provide interpretation thereof if requested by Member States
				2.1.1.1	New or amended mandatory IMO instruments: Environmental topics (MEPC): Amendments to MARPOL Annexes I to VI, including revised MARPOL Annexes V and VI (see Output 7.3.1.1) Status: Commenced.
DEVELOPING AND MAINTAINING A COMPREHENSIVE FRAMEWORK FOR SAFE, SECURE, EFFICIENT AND ENVIRONMENTALLY SOUND SHIPPING					
5		5.2	Enhancing technical, operational and safety management standards	5.2.3	Keep under review standards for safe handling and carriage by sea of solid and liquid cargoes carried in bulk and packaged form
				5.2.3.1	New or amended mandatory IMO instruments: Safety and security topics (MSC): - Amendments to the IMSBC Code Status: In progress. DSC 13 will consider the outcome of a correspondence group on this item. - Amendments to the CSC Convention and associated circulars Status: Not yet commenced.

Strategic Directions (SDs) (A.989(25))			High-level Actions (HLAs)		Planned outputs for 2008-2009		
						<ul style="list-style-type: none"> - Amendments to the CSS Code Status: In progress. DSC 13 will further consider this item. - Amendments to the IMDG Code and supplements, including stowage of water-reactive cargoes Status: Ongoing. Amendment 34.08 is currently under development. - SOLAS amendments to make the IMSBC Code mandatory Status: In progress. DSC 13 will consider the outcome of a correspondence group on this item. - Extension of the BLU Code to include grain Status: In progress. DSC 13 will further consider this item. - Revision of the Code of safe practice for ships carrying timber deck cargoes Status: In progress. DSC 13 will consider the outcome of a correspondence group on this item. - Review of documentation requirements for dangerous goods in packaged form Status: Not yet commenced. 	
					5.2.3.2	<p>New or amended non-mandatory IMO instruments (MSC):</p> <ul style="list-style-type: none"> - Form and procedure for approval of the Cargo Securing Manual (MSC) Status: In progress. DSC 13 will further consider this item. - Guidance on protective clothing Status: Not yet commenced. - Guidance on providing safe working conditions for securing of containers Status: In progress. DSC 13 will further consider this matter. - Review of recommendations on the safe use of pesticides in ships Status: In progress. MSC 84 approved MSC.1/Circ.1264 and further work will be undertaken at DSC 13. - Revised Guidelines for packing of cargo transport units Status: Not yet commenced. 	
1 2	IMO will take the lead in enhancing the quality of shipping by:	12. 1	Encouraging the utilization of the best available techniques not entailing excessive costs, in all aspects of shipping	12.1.2	Use formal safety assessment techniques in the development of technical standards	12.1.2.2	A casualty analysis process effectively implemented and monitored (MSC) Status: In progress (see Output 12.1.2.1).
		12. 3	Promoting and enhancing the availability of, and access to, information – including casualty information – relating to ship safety and security (i.e. transparency)	12.3.1	Consider the wider dissemination of information, analyses and decisions, taking account of the financial implications	12.3.1.3	Reports of incidents involving dangerous goods or marine pollutants in packaged form on board ships or in port areas (MSC/MEPC) (DSC 11/19, section 6, continuous) Status: Ongoing. This is a standing item on the agenda of the Committees' and the DSC Sub-Committee.