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

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1 GENERAL

1.1 The Sub-Committee on Ship Design and Equipment (DE) held its fifty-seventh session from 18 to 22 March 2013 under the chairmanship of Mrs. A. Jost (Germany). The Vice-Chairman, Dr. S. Ota (Japan), was also present.

1.2 The session was attended by delegations from Member States and observers from international organizations and non-governmental organizations in consultative status as listed in document DE 57/INF.1.

Secretary-General's opening address

1.3 The Secretary-General welcomed participants and delivered his opening address, the full text of which can be downloaded from the IMO website at the following link: <http://docs.imo.org/Meetings/Media.aspx>.

Chairman's remarks

1.4 In responding, the Chairman thanked the Secretary-General for his words of guidance and encouragement and assured him that his advice and requests would be given every consideration in the deliberations of the Sub-Committee.

Adoption of the agenda and related matters

1.5 The Sub-Committee adopted the agenda (DE 57/1/Rev.1) and agreed to be guided in its work, in general, by the annotations contained in document DE 57/1/1 and Add.1 and the proposed arrangements for the session set out in document DE 57/1/2. The agenda, as adopted, together with the list of documents considered under each agenda item, is set out in document DE 57/INF.13.

2 DECISIONS OF OTHER IMO BODIES

2.1 The Sub-Committee noted the outcome of MSC 90, C 108, MEPC 63, MEPC 64, BLG 16, COMSAR 16, FSI 20, STW 43, NAV 58, MSC 91 and C 109 relevant to the work of the Sub-Committee, as reported in documents DE 57/2, DE 57/2/1, DE 57/2/2 and DE 57/2/3, and the outcome of FP 56, COMSAR 17, BLG 17, SLF 55 and FSI 21 as provided verbally by the Secretariat, and took them into account in its deliberations when dealing with relevant agenda items.

2.2 The Sub-Committee further noted that MSC 90 had approved the revised *Guidelines on the organization and method of work of the Maritime Safety Committee and the Marine Environment Protection Committee and their subsidiary bodies* (MSC-MEPC.1/Circ.4/Rev.2) and urged all parties concerned to strictly adhere to the revised Committees' Guidelines.

3 CONSIDERATION OF IACS UNIFIED INTERPRETATIONS

3.1 The Sub-Committee recalled that this was a continuous item on its biennial agenda, established by MSC 78, so that IACS could submit any newly developed or updated unified interpretations for the consideration of the Sub-Committee, with a view to developing appropriate IMO interpretations, if deemed necessary.

3.2 The Sub-Committee noted that document DE 57/3/11 (Japan) had been withdrawn.

Matters arising from DE 56***Draft MSC circular on Unified interpretation of SOLAS chapters II-1 and XII and of the Technical provisions for means of access for inspections (resolution MSC.158(78))***

3.3 The Sub-Committee had for its consideration the following documents:

- .1 DE 57/3 (Secretariat), containing a draft MSC circular on Unified interpretation to SOLAS chapters II-1 and XII and to the Technical provisions for means of access for inspections (resolution MSC.158(78)), amalgamating and consolidating MSC.1/Circ.1176 and MSC.1/Circ.1197, as well as including the unified interpretations of SOLAS chapter XII and of the performance standard for water level detectors on bulk carriers, taking into account documents DE 56/7/3 (IACS) and DE 56/7/6 (IACS), prepared by the Secretariat following a request of DE 56; and
- .2 DE 57/3/9 (Greece), commenting on document DE 57/3, stating that the required 800 x 600 mm and 600 x 600 mm openings for vertical and horizontal access are absolute minimum allowable clear sizes and should not be reduced further and suggesting that the proposed interpretation to paragraphs 3.10 and 3.11 of the Technical Provisions, as set out in the annex to document DE 57/3, be deleted.

3.4 Following a thorough discussion of the deletions proposed by Greece, the Sub-Committee accepted the reasoning provided in document DE 57/3/9 and agreed that the proposed interpretation to paragraphs 3.10 and 3.11 of the Technical provisions should be deleted.

3.5 Consequently, the Sub-Committee agreed to the draft MSC circular on Unified interpretation of SOLAS chapters II-1 and XII, of the Technical provisions for means of access for inspections (resolution MSC.158(78)) and of the Performance standards for water level detectors on bulk carriers (resolution MSC.145(77)), as set out in annex 1, superseding MSC.1/Circ.1176 and MSC.1/Circ.1197, for submission to MSC 92 for approval.

Draft MSC circular on Unified interpretations of the Performance standard for protective coatings for dedicated seawater ballast tanks in all types of ships and double-side skin spaces of bulk carriers

3.6 The Sub-Committee had for its consideration the following documents:

- .1 DE 57/3/1 (Secretariat), containing a draft MSC circular on Unified interpretations of the Performance standard for protective coatings for dedicated seawater ballast tanks in all types of ships and double-side skin spaces of bulk carriers, updating MSC.1/Circ.1378, prepared by the Secretariat following the request of DE 56; and
- .2 DE 57/3/10 (Greece), commenting on document DE 57/3/1 and proposing amendments to the proposed interpretations of paragraphs 1.3, 2.2, 2.3, and 3.4 of PSPC 4, table 1, and objecting to the interpretation of section 8.

3.7 In considering the modifications proposed by Greece, the Sub-Committee, with regard to the draft unified interpretations set out in the annex to document DE 57/3/1:

- .1 agreed to include the word "always" in the last sentence of paragraph 2 of the interpretation of PSPC 4 – table 1, 1 (Design of coating system) paragraph 1.3, Method A;
- .2 did not agree to the proposed modifications of the interpretations of paragraphs 2.2 and 2.3 of PSPC 4 – table 1, 2 (Primary surface preparation);
- .3 agreed to keep the interpretation of paragraph 3.4 of PSPC 4 – table 1, 3 (Secondary surface preparation), in square brackets for a decision by the Committee; and
- .4 agreed to delete the proposed interpretation of PSPC 8 (Alternative systems), paragraphs 8.1 to 8.4.

3.8 Following consideration, the Sub-Committee agreed to a draft MSC circular on Unified interpretations of the Performance standard for protective coatings for dedicated seawater ballast tanks in all types of ships and double-side skin spaces of bulk carriers (resolution MSC.215(82)), as set out in annex 2, revising MSC.1/Circ.1378, for submission to MSC 92 for approval.

Matters arising from MSC 90 and MEPC 63

Lifeboat release and retrieval systems

3.9 The Sub-Committee noted that MSC 90 had considered document MSC 90/9/3 (IACS), providing further clarification regarding requirements for lifeboat release and retrieval systems adopted/approved by MSC 89. While the clarifications provided by IACS were generally welcomed and supported at MSC 90, several delegations expressed concern regarding paragraph 6 of the document, concerning the use of the safety pin arrangement subject to the acceptance of the hook manufacturer. MSC 90 invited DE 57 to consider the document with a view to the preparation of a draft MSC circular on the matter.

3.10 Following consideration, and having noted information by the observer from IACS that they were currently reconsidering paragraph 6 of document MSC 90/9/3, the Sub-Committee invited IACS to submit a relevant draft unified interpretation to DE 58 and requested the Secretariat to inform the STW Sub-Committee of this matter.

Unified interpretation of SOLAS regulation II-2/3-2

3.11 The Sub-Committee recalled that DE 56 had agreed on a draft MSC circular on Unified interpretation of SOLAS regulation II-1/3-2, concerning coating of dedicated seawater ballast tanks, as set out in document DE 56/25, annex 8, for submission to MSC 90 for approval, and noted that MSC 90, following concerns expressed by several delegations and observers, did not approve the draft interpretation and requested DE 57 to reconsider it.

3.12 Following a brief discussion during which several delegations reiterated the concerns expressed at MSC 90, the Sub-Committee agreed to consider this matter further at DE 58.

Amendments to the Unified Interpretation of regulation 12 of MARPOL Annex I (MEPC.1/Circ.753)

3.13 The Sub-Committee noted the submission of the Secretariat (DE 57/3/4) that MEPC 63, with regard to the Amendments to Unified Interpretation to regulation 12.2 of MARPOL Annex I (MEPC.1/Circ.753), had considered documents:

- .1 MEPC 63/7/5 (Denmark, Spain and BIMCO), seeking clarification on the scope of application of regulation 12 of MARPOL Annex I and its associated Unified Interpretations (UI) in MEPC.1/Circ.753; and
- .2 MEPC 63/7/9 (IACS), providing IACS Unified Interpretation MPC 99 on regulation 12.2 of MARPOL Annex I, and proposing amendments to regulation 12 of MARPOL Annex I following the issuing of MEPC.1/Circ.753,

and had referred both documents to DE 57 for further consideration and advice.

3.14 In this connection, the Sub-Committee considered document DE 57/3/12 (Denmark, Spain and BIMCO), repeating the views expressed in document MEPC 63/7/5 that the unified interpretation in MEPC.1/Circ.753 was a step back in the implementation of regulation 12, since the interpretation allows connections that were not considered acceptable in the previous UI 17.1.3, due to the addition of the paragraph "For ships delivered before 1 January 2014, existing arrangements where the oil residue (sludge) tank(s) have discharge connections to oily bilge water holding tank(s), tank top or oily water separator may be accepted". The document provides modifications to MEPC.1/Circ.753, proposing the deletion of the additional paragraph and pointing out that circulars or UIs are not supposed to delay and/or change the applicability of a regulation, particularly for MARPOL.

3.15 The observer from IACS recalled that MEPC 62 had endorsed the view of IACS that, while the revised UI could serve as interim guidance, options should be explored to formalize the interpretation, including possible amendments to MARPOL regulation I/12, and had invited IACS and interested delegations to provide further considerations and comments. IACS advised that the submitters of documents MEPC 63/7/5, MEPC 63/7/9 and DE 57/3/12 had discussed this matter further and had agreed to a draft text of a revised version of the regulation, incorporating, as much as possible, existing interpretations in the text of the regulation.

3.16 Following consideration, the Sub-Committee agreed to a draft MEPC circular on Amendments to the Unified Interpretation to regulation 12.2 of MARPOL Annex I (MEPC.1/Circ.753), as set out in annex 3, for submission to MEPC 65 for approval.

3.17 With regard to the proposed amendments to MARPOL regulation I/12, set out in annex 2 to document MEPC 63/7/9, the Sub-Committee agreed to consider them further at DE 58, together with additional modifications to the draft amendments proposed during the session (see paragraph 3.15), and requested the Secretariat to prepare a document setting out the amendments, as modified, for consideration at that session.

IACS Unified Interpretations

Fall preventer devices

3.18 The Sub-Committee considered document DE 57/3/2 (IACS), presenting Unified Interpretations (UI SC 254) to the *Guidelines for evaluation and replacement of lifeboat release and retrieval systems* (MSC.1/Circ.1392) and the *Guidelines for the fitting and use of fall preventer devices* (FPDs) (MSC.1/Circ.1327), providing guidance on the requirements for the strength and testing standards to be applied to FPDs.

3.19 Following consideration, the Sub-Committee, having agreed to replace the words "they shall be approved" in the second paragraph of the proposed interpretation with the words "they should be considered", agreed to a draft MSC circular on Unified Interpretations on fall preventer devices (MSC.1/Circ.1392 and MSC.1/Circ.1327), as set out in annex 4, for submission to MSC 92 for approval.

Redundancy of fuel oil pumps for the normal operation of propulsion systems

3.20 The Sub-Committee considered document DE 57/3/3 (IACS), presenting UI SC 255 on the application of SOLAS regulation II-1/26.3.4 concerning redundancy of fuel oil pumps for the normal operation of propulsion systems. The UI had been developed to address the arrangement of fuel oil pumps, in particular for ships intending to use marine fuels with a sulphur content not exceeding 0.1 per cent per m/m and minimum viscosity of 2 cSt in accordance with MARPOL regulation VI/14, effected from 1 January 2015, with a view to providing sufficient capacity for normal operation of propulsion machinery, even if one pump becomes inoperable.

3.21 Following consideration, the Sub-Committee, having agreed to insert the word "(third)" between the words "additional" and "fuel oil pump" in paragraph 2.2 of the proposed interpretation, agreed to a draft MSC circular on Unified Interpretations of SOLAS regulation II-1/26.3, as set out in annex 5, for submission to MSC 92 for approval.

Load testing of hooks intended for the primary release of lifeboats

3.22 Taking into account comments made at DE 56, the Sub-Committee considered document DE 57/3/5 (IACS), presenting a revision of UI SC 244 concerning chapter 5.3.4 of part 2 of the *Revised Recommendation on testing of LSA* (resolution MSC.81(70)) on load testing of hooks intended for the primary release of lifeboats.

3.23 Having noted comments regarding the application of the UI to free-fall lifeboats and paragraph 4 of the UI concerning the weight of the boat, the Sub-Committee agreed to note the interpretation and invited IACS to reconsider it.

Greatest launching height for a free-fall lifeboat

3.24 Taking into account comments made at DE 56, the Sub-Committee considered document DE 57/3/6 (IACS), presenting a revision of UI SC 248 concerning the greatest launching height for a free-fall lifeboat (LSA Code, paragraph 1.1.4).

3.25 Having noted support for the proposed UI as a good practical solution, but also concerns that it was going beyond the requirements of the LSA Code, the Sub-Committee nevertheless agreed to a draft MSC circular on Unified Interpretations of paragraph 1.1.4 of the LSA Code, as set out in annex 6, for submission to MSC 92 for approval.

Matters deferred to DE 58

3.26 Due to lack of time, the Sub-Committee decided to postpone consideration of the following documents submitted under this agenda item to DE 58:

- .1 DE 57/3/7 (IACS), providing a draft IACS Unified Interpretation on embarkation station and stowage location of the liferaft as required by SOLAS regulation III/31.1.4, stating that remotely located survival craft should be provided with equipment including an embarkation ladder or other means of embarkation enabling descent to the water in a controlled manner and, in particular, that a knotted rope is not acceptable for this purpose; and
- .2 DE 57/3/8 (IACS), providing a draft revision of UI SC 145 concerning the application of the general emergency alarm and public address system, and seeking clarification on whether the system is required in ro-ro spaces on cargo ships.

4 REVISION OF THE STANDARD SPECIFICATION FOR SHIPBOARD INCINERATORS (RESOLUTION MEPC.76(40))

4.1 The Sub-Committee recalled that DE 56 had agreed that the capacity limit for shipboard incinerators should be increased from 1,500 kW to 4,000 kW and had invited MEPC 64 to recommend to Member States that incinerators with a capacity greater than 1,500 kW and up to 4,000 kW can be type-approved under the existing *Standard specification for shipboard incinerators* (resolution MEPC.76(40), as amended by resolution MEPC.93(45)) (the Standard Specification). In this connection, the Sub-Committee noted that MEPC 64 had endorsed this recommendation and had consequently approved MEPC.1/Circ.793 on Type approval of shipboard incinerators.

4.2 The Sub-Committee also recalled that DE 56, with regard to the further work on the revision of the Standard Specification, had invited Member Governments and international organizations to submit comments and proposals to this session, and had invited the MEPC to extend the target completion year for the output to 2013. The Sub-Committee noted that MEPC 63 had concurred with the extension of the target completion year.

4.3 The Sub-Committee considered document DE 57/4 (Denmark), proposing to keep section A1.7 of the annex to the Standard Specification as it is since the agreement on type approval of shipboard incinerators, as set out in MEPC.1/Circ.793, does not have any implications for the section, which, therefore, does not need to be amended. The Sub-Committee noted that section A1.7 is recommendatory for passenger and cruise ships with a total incinerator capacity of more than 1,500 kW, often operating in very sensitive coastal areas.

4.4 The Sub-Committee noted concerns by some delegations that this matter should be further considered and that the Standard Specification may still need to be amended. They also questioned the application of the relevant section to passenger and cruise ships only. The Sub-Committee invited the MEPC to note these comments. However, following discussion, the Sub-Committee agreed with the view of Denmark and concluded that no further work on the revision of the Standard Specification was necessary at this point in time.

4.5 Having noted paragraph 4 of document DE 57/4, which recalled that the working group at DE 56 (DE 56/WP.5) had agreed on the need to update the definition section as well as references to the MARPOL and SOLAS Conventions and the IEC Standards in the Standard Specification, the Sub-Committee requested the Secretariat to update the aforementioned definitions and references and submit a relevant document to MEPC 66.

Completion of the work on the output

4.6 In view of the above, the Sub-Committee invited the MEPC to note that the work on this output had been completed.

5 DEVELOPMENT OF AMENDMENTS TO SOLAS REGULATION II-1/40.2 CONCERNING GENERAL REQUIREMENTS ON ELECTRICAL INSTALLATIONS

5.1 The Sub-Committee recalled that DE 56 generally supported the proposal to address the issue of electrical installations on ships being fit for purpose, and recognized the need to further consider this matter, also noting that consequential amendments to the *Survey Guidelines under the Harmonized System of Survey and Certification (HSSC), 2011* (the HSSC Guidelines) may possibly be sufficient to address the problem, without the need for amendments to SOLAS. Consequently, DE 56 invited Member Governments and international organizations to submit comments and proposals on the issue to this session.

5.2 The Sub-Committee considered document DE 57/5 (Denmark), proposing amendments to SOLAS regulations II-1/45.1.3 and II-1/45.7 and the HSSC Guidelines, to ensure that electrical installations on board ships are manufactured and maintained according to relevant and recognized electrical standards, in order to provide a sufficient safety level and protection against fire on board ships.

5.3 While the proposals by Denmark were supported in principle, several delegations expressed concerns, in particular regarding the use of vague terminology such as "manufactured according to recognized standards" and "suitable for use on board ships", the scope of the proposed amendments and the costs of their implementation.

5.4 Consequently, the Sub-Committee invited Member Governments and international organizations to submit comments and proposals on the matter to DE 58.

Extension of target completion year

5.5 In view of the above, the Sub-Committee invited the Committee to extend the target completion year for the output to 2014.

6 MAKING THE PROVISIONS OF MSC.1/CIRC.1206/REV.1 MANDATORY

6.1 The Sub-Committee recalled that DE 56 agreed, in principle, to the first draft of a new mandatory instrument amalgamating the Measures to prevent accidents with lifeboats (MSC.1/Circ.1206/Rev.1) and the Interim Recommendation on conditions for authorization of service providers for lifeboats, launching appliances and on-load release gear (MSC.1/Circ.1277) in the form of a draft MSC resolution on Requirements for periodic servicing and maintenance of lifeboats, launching appliances and on-load release gear (DE 56/WP.3, annex 1).

6.2 The Sub-Committee also recalled that DE 56 had instructed the LSA Correspondence Group to further develop the draft MSC resolution and to submit a report to this session.

6.3 The Sub-Committee noted that MSC 90 had endorsed the agreement of DE 56 to limit the scope of the new instrument to lifeboats, rescue boats, fast rescue boats, launching appliances and release gear for those boats and for liferafts.

Report of the correspondence group

6.4 The Sub-Committee considered the report of the correspondence group (DE 57/6), providing the following instruments for the consideration of the Sub-Committee and flagging up a number of issues that needed further consideration:

- .1 a draft MSC resolution on Requirements for periodic servicing and maintenance of lifeboats and rescue boats, launching appliances and release gear, presenting the mandatory part of the amalgamation of MSC.1/Circ.1026/Rev.1 and MSC.1/Circ.1277, set out in annex 1 to the report;
- .2 a draft MSC circular on Guidelines on safety during abandon ship drills using lifeboats, presenting the non-mandatory part of the amalgamation of MSC.1/Circ.1026/Rev.1 and MSC.1/Circ.1277, set out in annex 2 to the report; and
- .3 draft amendments to SOLAS chapter III to make the draft MSC resolution mandatory, set out in annex 3 to the report.

Draft MSC resolution on Requirements for periodic servicing and maintenance of lifeboats and rescue boats

6.5 In considering the report of the group, the Sub-Committee took the following action regarding the draft MSC resolution on Requirements for periodic servicing and maintenance of lifeboats and rescue boats (the Requirements) (DE 57/6, annex 1):

- .1 noted that the group identified no conflict in mandating requirements that are not mandatory under SOLAS or the LSA Code;
- .2 agreed to delete the definition of "make and type" contained in paragraph 2.2.4;
- .3 agreed to delete the text in square brackets in paragraph 5.1 concerning signature of reports and checklists;
- .4 agreed to retain the second option in paragraph 6.2.3 concerning the annual thorough examination, to include the word "normally" between the words "not" and "longer" and to keep the whole paragraph in square brackets for a decision by the Committee;
- .5 agreed to include the words "(including a visual examination of the external boundaries of the void spaces, as far as practicable)" at the end of paragraph 6.2.4.1;
- .6 agreed to retain paragraph 6.2.4.2 concerning examinations of engine and propulsion systems;
- .7 agreed to add the following two new paragraphs after paragraph 6.2.4.7:

- .8 fender/skate arrangements; and
- .9 rescue boat righting system, where fitted.";
- .8 regarding the text parts in square brackets in paragraph 7.1 concerning the conditions for authorization of service providers:
 - .1 agreed that subparagraph 7.1.3 would read as follows:

"access to appropriate parts and accessories as specified for repairing lifeboats (including free-fall lifeboats), rescue boats and fast rescue boats, launching appliances and release gear, as applicable";
 - .2 agreed to retain the text and delete the square brackets in subparagraphs 7.1.5 and 7.1.5.1;
 - .3 agreed to delete subparagraph 7.1.5.9; and
 - .4 agreed to retain the note at the end of subparagraph 7.1.5;
- .9 agreed to delete the text in square brackets in paragraph 7.4 concerning cases where the service provider is no longer in business or does not provide sufficient technical support and replace the word "and" in the second line with "and/or";
- .10 agreed to delete paragraphs 7.4*bis* and 8.2.2 regarding the required qualifications of service providers;
- .11 agreed to retain the text in square brackets in paragraph 8.1 concerning certification of personnel and replace the words "by the service provider" with the words "by a service provider";
- .12 agreed to retain paragraph 8.2.1.7 concerning education and training for initial certification of personnel and requested the STW Sub-Committee to consider the matter; and
- .13 agreed that the text set out in paragraph 12 of the report, concerning the duties of equipment manufacturers, should be included in the covering draft MSC resolution in square brackets, together with the original text addressing this issue as contained in paragraph 4 of the annex to MSC.1/Circ.1277, and requested the Secretariat to prepare the covering draft MSC resolution showing both versions for the consideration of the Sub-Committee (see paragraph 6.7).

6.6 With regard to other matters raised by the group in the context of its discussions on the draft Requirements, the Sub-Committee:

- .1 noted the possible lack of guidelines/requirements for approval of servicing stations for inflated rescue boats, recalling that SOLAS regulation III/20.8.4 specifies that permanent repairs of inflated rescue boats shall be effected at an approved servicing station, and invited Member Governments and international organizations to consider submitting a request for a relevant

new output to the Committee, in accordance with the Committees' Guidelines; and

- .2 regarding the discussion of the group on the general procedure for Administrations, agreed that each flag State Administration should authorize service providers regardless of the location of the service providers and/or the equipment manufacturers and no provisions on mutual recognition/approval on this issue should be provided in this regard.

6.7 Following consideration of document DE 57/WP.4, the Sub-Committee, having agreed to utilize the second version of operative paragraph 3, as shown in the annex to the document, agreed to the draft MSC resolution on Requirements for periodic servicing and maintenance of lifeboats and rescue boats, set out in annex 7, for submission to MSC 92 for approval, with a view to adoption at MSC 93 in conjunction with the adoption of the associated draft SOLAS amendments (see paragraph 6.9).

Draft MSC circular on Guidelines on safety during abandon ship drills using lifeboats

6.8 Having noted the discussion of the group on the non-mandatory parts in annex 1 to MSC.1/Circ.1206/Rev.1, the Sub-Committee agreed to the draft MSC circular on *Guidelines on safety during abandon ship drills using lifeboats*, set out in annex 8, for submission to MSC 92 for approval in principle and for final approval at MSC 93 in conjunction with the adoption of the associated draft MSC resolution (see paragraph 6.7).

Draft amendments to SOLAS chapter III

6.9 Having considered the associated draft amendments to SOLAS chapter III (DE 57/6, annex 3), the Sub-Committee agreed to the draft amendments, as set out in annex 9, for submission to MSC 92 for approval with a view to adoption at MSC 93. In this connection, the Sub-Committee noted the view of the observer from IACS that the entry-into-force date for the requirements should be carefully considered in view of the time needed to train and authorize personnel for periodic servicing.

Evaluation and replacement of lifeboat release and retrieval systems

6.10 The Sub-Committee noted document DE 57/6/1 (ILAMA), expressing a number of concerns regarding the replacement of existing lifeboat hook systems, in particular concerning the approval process, mutual acceptance of evaluations and lead times for retrofitting, which make the allotted timescale for completion of the re-hooking challenging. They encouraged Administrations, ROs and shipowner organizations to inform the manufacturers of the actual number of ships that require their lifeboat launching appliances to be fitted with new hooks in accordance with the *Guidelines for evaluation and replacement of lifeboat release and retrieval systems* (MSC.1/Circ.1392).

Completion of the work on the output

6.11 The Sub-Committee invited the Committee to note that the work on the output had been completed.

7 DEVELOPMENT OF A NEW FRAMEWORK OF REQUIREMENTS FOR LIFE-SAVING APPLIANCES

7.1 The Sub-Committee recalled that DE 56 had agreed to further consider the development of a new framework of requirements for LSA, including the finalization of draft Goal-based guidelines on a framework of requirements for ships' life-saving appliances.

7.2 The Sub-Committee also recalled that DE 56 had instructed the LSA Correspondence Group to further develop the draft Guidelines (DE 56/WP.3, annex 3), taking into account the human element in accordance with MSC-MEPC.7/Circs.1, 2 and 4 and the road map contained in annex 2 to document DE 56/WP.3; and to identify matters in the draft Guidelines that relate to the work of other IMO bodies and advise the Sub-Committee accordingly.

Report of the correspondence group and related documents

7.3 The Sub-Committee considered documents:

- .1 DE 57/7 (Japan), containing the report of the correspondence group and presenting draft Goal-based guidelines on framework of requirements for ships' life-saving appliances, based on annex 3 to document DE 56/WP.3, and identifying matters in the draft Guidelines that relate to the work of other IMO bodies; and
- .2 DE 57/7/2 (Germany), providing information on the work of the Committee's GBS Working Group related to the further consideration of the safety level approach and its linkage to the Sub-Committee's work on a new framework of requirements for life-saving appliances.

7.4 In considering the actions requested by the correspondence group (DE 57/7, paragraph 16), the Sub-Committee:

- .1 noted that Tier III (Verification) is not included in the draft Guidelines;
- .2 agreed that the modification of the structure of the draft Guidelines as proposed by the group should be further considered by the LSA Working Group;
- .3 noted that the draft Guidelines do not refer to ships' size/type;
- .4 agreed that the deletion of the square bracketed text in paragraph 4 "Tier I – Goal" of the draft Guidelines should be further considered by the LSA Working Group;
- .5 with regard to the square bracketed text in paragraphs 5.3.1.2, 5.3.1.2.10 and 5.3.2.3.1 of the draft Guidelines, concerning the emergency support system, agreed that this should be further considered by the LSA Working Group; and
- .6 regarding the proposal by the group to refer parts of the draft Guidelines to other Sub-Committees for consideration, agreed that this should be further considered by the LSA Working Group.

Overhauling and test of launching appliances, lifeboat or rescue boat on-load release gear, and davit-launched liferaft automatic release

7.5 The Sub-Committee considered document DE 57/7/1 (IACS), providing an updated version of IACS UI 144 requesting that overhauling and test of launching appliances, lifeboat or rescue boat on-load release gear and davit-launched liferaft automatic release hooks, as stipulated in SOLAS regulation III/20.11, are to be witnessed by a surveyor. IACS also proposed to link the performance of the overhaul/tests with the safety equipment renewal survey in the development of the new framework of LSA requirements mandating the provisions of MSC.1/Circ.1206/Rev.1.

7.6 While noting concerns by some delegations regarding the relation of the IACS proposals with the current agenda item and that it would be premature to consider this matter as part of the new framework, the Sub-Committee also noted that there was support to address the proposal now through a unified interpretation. Consequently, the Sub-Committee agreed to refer the proposal to the LSA Working Group for consideration (see paragraph 7.14).

Road map for the development of a new framework of requirements for life-saving appliances

7.7 The Sub-Committee recalled the road map for the development of a new framework of requirements for LSA (DE 56/WP.3, annex 2) agreed at DE 56, in particular the other two tasks for this session included in the map, i.e.:

- .1 commence work on a comprehensive review of requirements for LSA, if considered appropriate, taking into account Failure Mode and Effect Analysis (FMEA); and
- .2 consider matters on lifeboat safety, taking into account the instructions from MSC in documents MSC 89/25, paragraphs 3.10 and 3.11, and DE 56/6/2 and the documents referenced therein and proposals submitted to the Organization.

7.8 In this connection, the Sub-Committee also recalled relevant documents DE 52/6/3 (ILAMA), providing information on the principles of an FMEA for lifeboat on-load release hooks and suggesting that it should be introduced as a requirement for any new hooks being developed; and ISWG LRH/2/3 (Industry Lifeboat Group), proposing amendments to the *Guidelines for evaluation and replacement of lifeboat on-load release mechanisms*, to chapter IV of the LSA Code and to SOLAS regulation III/1.5, but also raising a number of other issues.

7.9 Consequently, the Sub-Committee instructed the LSA Working Group to consider the two items in the road map referred to above (see paragraph 7.7), including the related documents DE 52/6/3 and ISWG LRH/2/3, and to advise the Sub-Committee accordingly.

Establishment of the LSA Working Group

7.10 The Sub-Committee established the LSA Working Group and instructed it, taking into account the comments and decisions made in plenary, to:

- .1 further develop the draft Goal-based guidelines on framework of requirements for ships' life-saving appliances, based on the

- correspondence group's report (DE 57/7) and taking into account document DE 57/7/2 (Germany); and
- .2 consider the IACS proposal to link the performance of the overhaul/tests with the safety equipment renewal survey (DE 57/7/1) and advise the Sub-Committee accordingly;
 - .3 consider the two other items in the road map agreed at DE 56 (DE 56/WP.3, annex 2), including the related documents DE 52/6/3 (ILAMA) and ISWG LRH/2/3 (Industry Lifeboat Group), and advise the Sub-Committee accordingly;
 - .4 consider whether a correspondence group should be established and, if so, develop terms of reference; and
 - .5 submit a written report (part 1) by Thursday, 21 March 2013, continue working through the week and submit part 2 of the report to DE 58, as soon as possible after this session.

Report of the LSA Working Group

7.11 Having considered the part of the report of the LSA Working Group (DE 57/WP.5) dealing with the agenda item, the Sub-Committee took action as described in the following paragraphs.

Draft Goal-based guidelines on the framework of requirements for ships' life-saving appliances

7.12 The Sub-Committee agreed, in principle, to the draft Goal-based guidelines on a framework of requirements for ships' life-saving appliances (DE 57/WP.5, annex 1). In this connection, the Sub-Committee endorsed the group's recommendation that the draft guidelines should be submitted to the Committee for approval in due course, when the work on the development of safety objectives and functional requirements of the Guidelines on alternative design and arrangements for SOLAS chapters II-1 and III has been finalized.

7.13 Subsequently, the Sub-Committee agreed that the following parts of the draft guidelines should be considered by other sub-committees:

- .1 STW Sub-Committee: all functional requirements related to human element;
- .2 FP Sub-Committee: "Escape"; and
- .3 COMSAR Sub-Committee: "Communication" and "Search and rescue",

and requested the Secretariat to refer the relevant parts of the draft Goal-based guidelines on the framework of requirements for ships' life-saving appliances (DE 57/WP.5, annex 1) to the above sub-committees for consideration, as appropriate.

Overhauling and tests of LSA and safety equipment renewal survey

7.14 The Sub-Committee noted that the group had noted the explanation by the observer from IACS that occasionally service suppliers/manufacturers or their licensees who were contracted to carry out the five-year overhauling and test of launching appliances, release

gear and davit-launched liferaft automatic release hooks, carried out the associated dynamic and 1.1 times load tests without a surveyor being present; and the views of some delegations that it was not necessary for a surveyor to be present during the thorough examinations/overhauls, but that attendance by the Administration or their recognized organization during the associated testing was necessary and should be carried out in conjunction with the renewal survey required by SOLAS regulations I/7 or I/8, as applicable. Having noted the above, the Sub-Committee invited IACS to review the proposed unified interpretation on thorough examination/overhauls and tests in five-year intervals of launching appliances and on-load release gear for submission to DE 58 for consideration.

7.15 Subsequently, the Sub-Committee agreed that consideration should also be given to addressing the text of the *Survey Guidelines under the Harmonized System of Survey and Certification (HSSC), 2011* (resolution A.1053(27)), in order to clarify this requirement, and requested the Secretariat to inform FSI 22 accordingly, for action as appropriate.

Road map for the development of a new framework of requirements for LSA

7.16 The Sub-Committee noted that the outcome of the work of the group related to the road map for the development of a new framework of requirements for LSA (see paragraph 7.10.3) will be presented in part 2 of the report of the group (DE 57/WP.5/Add.1), for consideration by DE 58.

Establishment of the LSA Correspondence Group

7.17 The Sub-Committee noted that the group, as instructed, had developed terms of reference for an LSA Correspondence Group (DE 57/WP.5, paragraph 13). However, having discussed all the correspondence groups proposed to be established at this session under agenda item 21, it was agreed not to establish an LSA correspondence group (see paragraph 21.4).

Extension of target completion year

7.18 Taking into account the work still to be accomplished under this output, the Sub-Committee invited the Committee to extend the target completion year to 2015.

8 DEVELOPMENT OF SAFETY OBJECTIVES AND FUNCTIONAL REQUIREMENTS OF THE GUIDELINES ON ALTERNATIVE DESIGN AND ARRANGEMENTS FOR SOLAS CHAPTERS II-1 AND III

8.1 The Sub-Committee recalled that DE 56 had agreed that the new framework of requirements for LSA (see agenda item 7) should form the basis for the development of specific safety objectives and functional requirements for SOLAS chapter III, similar to SOLAS regulation II-2/2. The framework could then also be used as a basis for guidelines for the evaluation of novel LSA, to be developed by the Organization, as referred to in the footnote to SOLAS regulation III/4.3. DE 56 invited Member Governments and international organizations to submit relevant comments and proposals to this session. The Sub-Committee noted that no relevant documents had been submitted on the matter.

8.2 In this connection, the Sub-Committee also noted that the Committee is currently, under its agenda item on "Goal-based new ship construction standards", developing Guidelines for the approval of alternatives and equivalents as provided for in various IMO instruments, which might have a bearing on the work on this output.

8.3 The Sub-Committee also noted that MSC 91 had instructed it to consider document MSC 91/18 (IACS) concerning lifejacket lights under this agenda item and advise MSC 92 accordingly.

Development of specific safety objectives and functional requirements for SOLAS chapters III and II-1

8.4 Taking into account the agreement at DE 56 that the new framework of requirements for LSA should form the basis for the development of specific safety objectives and functional requirements for SOLAS chapter III, the Sub-Committee agreed that the matter should be addressed in conjunction with agenda item 7, also taking into account the ongoing work in the Committee on the development of Guidelines for the approval of alternatives and equivalents as provided for in various IMO instruments.

Instructions to the LSA Working Group

8.5 Consequently, the Sub-Committee instructed the LSA Working Group, established under agenda item 7, to develop a plan for the work to be carried out under this item.

Lifejacket lights

8.6 As instructed by MSC 91, the Sub-Committee considered document MSC 91/18 (IACS), seeking clarification on the requirements of SOLAS regulation III/20.2 and section 2.2 of the LSA Code regarding what might constitute "acceptable arrangements for the positioning and operation of lights fitted to lifejackets" and offering to prepare a relevant unified interpretation.

8.7 During the discussion, some delegations expressed the view that the LSA Code requirements regarding lifejacket lights were sufficient, that Administrations should exercise sound judgement and that there was no need for a unified interpretation in the matter. If at all to be developed, any interpretation should be very flexible.

8.8 In this regard, the Sub-Committee noted in particular the comments made by the observer from ILAMA, namely that:

- .1 lifejacket lights should not be stowed in a pocket for a wearer to locate, attach and operate while possibly in cold water and in the dark. Moveable lights are only fitted where wearers have regular training and for lifejackets on passenger ships the lights would normally be fixed;
- .2 the light should be fitted as high as possible to offer optimum visibility over the upper hemisphere notwithstanding the wearer's head, and the assessment should be made with the subject floating in the water;
- .3 the light should not be obscured when a lifejacket spray hood is deployed;
- .4 the method of fitting should not damage the lifejacket nor should the light detach during the 4.5 m jump test; and
- .5 the light should illuminate automatically when the wearer has entered the water.

8.9 Following the discussion, the Sub-Committee agreed to report the comments made to MSC 92, as requested, and also invited IACS to prepare a relevant unified interpretation for the consideration of the Sub-Committee. In this connection, the Sub-Committee noted the view of the observer from IACS that any interpretation may in the future lead to the consideration of relevant amendments to SOLAS chapter III and the LSA Code.

Report of the LSA Working Group

8.10 Having considered the part of the report of the LSA Working Group (DE 57/WP.5) dealing with the agenda item, the Sub-Committee noted that the outcome of the work of the group related to the work plan for the development of safety objectives and functional requirements of the Guidelines on alternative design and arrangements for SOLAS chapters II-1 and III will be presented in part 2 of the report of the group (DE 57/WP.5/Add.1), for consideration by DE 58.

Extension of target completion year

8.11 In view of the above, the Sub-Committee invited the Committee to extend the target completion year for this output to 2015.

9 DEVELOPMENT OF AMENDMENTS TO THE LSA CODE FOR THERMAL PERFORMANCE OF IMMERSION SUITS

9.1 The Sub-Committee recalled that DE 56 instructed the LSA Correspondence Group to consider the methodology for ensuring consistent outcomes of thermal testing using manikins instead of human test subjects and, if necessary, the appropriate application and specification of immersion suit reference test devices (RTDs); and prepare relevant draft amendments to the LSA Code and the *Revised recommendation on testing of life-saving appliances* (MSC.81(70)) (RoT) for DE 57's consideration.

9.2 The Sub-Committee had for its consideration the following documents:

- .1 DE 57/9 (report of the correspondence group, submitted by Japan), stating that the group found that it was not necessary to prepare draft amendments to the LSA Code and instead had prepared draft amendments to the RoT, set out in annex 1, and a draft MSC circular on Test procedure for thermal performance test for immersion suits and anti-exposure suits using thermal manikins, set out in annex 2;
- .2 DE 57/9/1 and DE 57/9/2 (Denmark), providing the specifications for insulated and non-insulated immersion suit RTDs, respectively, as referred to in the report of the correspondence group; and
- .3 DE 57/9/3 (Canada), commenting on the LSA Correspondence Group's report and proposing that the target completion year be extended to 2014, so that the methodology proposed by the correspondence group can be validated to demonstrate that it can be consistently applied and equivalent resistance values are achieved with various manikins.

9.3 Due to lack of time, the Sub-Committee decided to defer consideration of this agenda item to DE 58.

Extension of target completion year

9.4 In view of the above, the Sub-Committee invited the Committee to extend the target completion year for the output to 2014.

10 DEVELOPMENT OF AMENDMENTS TO THE LSA CODE FOR FREE-FALL LIFEBOATS WITH FLOAT-FREE CAPABILITIES

10.1 The Sub-Committee recalled that DE 56 briefly discussed whether the output should be kept on the biennial agenda as no submission had been made to that session. However, having noted the intention of ILAMA to submit relevant information to this session, DE 56 invited Member States and international organizations to submit concrete proposals to DE 57.

10.2 The Sub-Committee had for its consideration document DE 57/10 (ILAMA), recalling relevant draft amendments to SOLAS regulation III/31, developed by a working group at DE 47 (DE 47/WP.9); informing the Sub-Committee of the problems inherent in requiring float-free capabilities for free-fall lifeboats; and, consequently, advising the Sub-Committee not to develop relevant requirements. However, due to lack of time, the Sub-Committee decided to defer consideration of this agenda item to DE 58.

Extension of target completion year

10.3 In view of the above, the Sub-Committee invited the Committee to extend the target completion year for the output to 2014.

11 DEVELOPMENT OF A MANDATORY CODE FOR SHIPS OPERATING IN POLAR WATERS

11.1 The Sub-Committee recalled that DE 56 had referred the corresponding chapters of the draft Polar Code to COMSAR 16, FP 56, NAV 58, SLF 55 and STW 43, together with relevant explanatory comments of the Polar Code Working Group (DE 56/WP.4, annex 2 and DE 57/11), requesting them to consider the parts of the Code under their respective remits and advise DE 57 of the outcome of their considerations.

11.2 The Sub-Committee also recalled that DE 56 had re-established the Polar Code correspondence group and instructed it to further develop parts of the draft Polar Code not referred to other bodies, based on the report of the working group (DE 56/WP.4 and DE 57/11), taking into account relevant documents and the outcome of MEPC 63 and of other sub-committees as it became available; and further develop the risk matrix (DE 55/21/1).

Outcome of other bodies

11.3 Regarding the outcome of other IMO bodies, the Sub-Committee noted the following documents:

- .1 DE 57/11/1 (Secretariat), reporting on the considerations of MEPC 63 with regard to Polar Code matters, in particular concerning the introduction of an environmental chapter in the draft Code and options to make the Code mandatory under environment-related instruments. MEPC 63 also considered whether the Code should be limited to matters which were additional to those already addressed under existing IMO instruments or whether any relevant parts of existing instruments should also be included

in the Code, and decided that it was preferable to include in the Code only new issues and additional requirements which do not appear in other instruments;

- .2 DE 57/11/2 (Secretariat), reporting on the outcome of COMSAR 16, STW 43 and NAV 58, as follows: COMSAR 16, due to the close proximity between DE 56 and COMSAR 16, was unable to consider this issue and invited comments to COMSAR 17; STW 43, due to the short time period between DE 56 and STW 43, likewise invited comments to STW 44, and NAV 58 considered chapter 9 (Navigation) of the draft Code and the outcome is included in document NAV 58/WP.5; and
- .3 DE 57/11/5 (Secretariat), reporting on the discussions of MSC 91 on how to make the Code mandatory (see also paragraph 11.9).

11.4 The Sub-Committee also noted information by the Secretariat regarding the outcome of FP 56, COMSAR 17 and SLF 55, in particular that FP 56 and SLF 55 did not have sufficient time to discuss the parts of the Polar Code referred to them in detail and instructed correspondence groups to consider the matter and report to FP 57 and SLF 56, respectively; and that COMSAR 17, following the advice of its SAR and Technical Working Groups, established a drafting group to consider the matter and endorsed the report of the group (COMSAR 17/WP.6), for submission to DE 57. FP 56 had further requested the Sub-Committee to provide the latest draft of the Polar Code for consideration by its correspondence group; and to develop an enhanced holistic set of ship operation scenarios, including seasonal data, operating temperature ranges, etc., to enable the FP Sub-Committee to develop guidance on fire safety system selection and on testing/approval requirements, for example, in the form of a matrix of temperature ranges and operating scenarios.

11.5 In this connection, the Sub-Committee noted that the Polar Code Correspondence Group is tracking the work of the other sub-committees and has been including any results in the draft Code as they become available.

Reports of the working group at DE 56 (part 2) and the correspondence group

11.6 The Sub-Committee considered the following documents:

- .1 DE 57/11 (report of the working group at DE 56 (part 2), submitted by the Chairman of the group), reporting on the discussions of the working group at DE 56 after their report had been prepared, in particular concerning the concept of ship categories (Categories A, B and C); and
- .2 DE 57/11/6 (report of the correspondence group, submitted by Norway), providing the report of the correspondence group established at DE 56, containing the draft International Code of safety for ships operating in polar waters (annex 1) and a revised hazard matrix (annex 2); and taking into account the discussions recorded in document DE 57/11.

11.7 The delegation of New Zealand stated that they fully supported the development of a mandatory Polar Code by the Organization and that they had been an active member of relevant working and correspondence groups. They were pleased to note that there had been no maritime incidents in the Antarctica Ross Sea region this summer, unlike recent past seasons, but pointed out that the absence of incidents did not reduce the need for the development of the Code. New Zealand, as part of this work, continued to advocate

a precautionary approach in the Code, to bring in stricter requirements for the operation of all ships in the Southern Ocean, and their concerns were driven by the potential significant loss of life and harm to the unique marine environment, as well as New Zealand's responsibility for search and rescue in the vast Ross Sea Region. To reduce the potential risks, New Zealand's preference was for all ships operating in the Antarctic to be ice-classed to a prescribed minimum standard and should standard SOLAS "non-ice-classed" ships be accepted within the Polar Code, such ships should be limited to operate, for the whole of the voyage within the polar regions, in ice-free waters or waters of very thin new ice with no multi-year ice inclusions. While details of the application of the Code were yet to be examined, they considered that operational requirements and portable equipment standards needed to be applied to all ships, both new and existing of all categories A, B and C. Given the increasing number of non-SOLAS ships operating in the Antarctic region, New Zealand encouraged the commencement of discussions on phase 2 as soon as possible to ensure that the requirements for all ships operating in the region were comprehensive. They expressed their deep appreciation to Norway and Mrs. Turid Stemre for the hard work and long hours invested in the Polar Code.

11.8 The Sub-Committee, having thanked the members of the correspondence group and in particular the coordinator, Mrs. Stemre of Norway, for the enormous amount of work carried out, and bearing in mind that the report will be further discussed in detail in the Polar Code Working Group, noted the progress made to date with the development of the draft Code and the need for further discussions in a working group.

Making the Polar Code mandatory

11.9 The Sub-Committee noted the parts of documents DE 57/11/1 and DE 57/11/5 dealing with the matter, in particular that:

- .1 MEPC 63 (DE 57/11/1), after considering several options, had shown a preference for the option of amending existing instruments (e.g. SOLAS, MARPOL and its annexes, the BWM and AFS Conventions) with a reference to the Code, and proposed that the entry-into-force dates could be coordinated by adjusting the date on which the amendments were deemed to be accepted; and
- .2 MSC 91 (DE 57/11/5) had noted the outcome of MEPC 63 in the matter, together with a proposal by Argentina (MSC 91/8/1) to structure the Code according to general provisions, safety measures (containing mandatory and recommendatory provisions), which would be included in a new chapter of SOLAS, and pollution prevention measures, which would be included in each of the MARPOL annexes and other pollution-related instruments as applicable; and had instructed the Sub-Committee to structure the draft Polar Code along the lines proposed by Argentina.

11.10 Taking into account the clear instructions of the Committees, the Sub-Committee was of the view that this matter did not need further discussion and agreed that the Polar Code would be adopted by separate MSC and MEPC resolutions; that the amendments to mandatory instruments to make the Code mandatory should be drafted along the lines proposed by Argentina in document MSC 91/8/1; and that the draft Code should be restructured in line with these decisions.

Environmental protection aspects of the Polar Code

11.11 The Sub-Committee recalled that DE 56 had agreed to keep any decisions regarding environmental requirements of the Code in abeyance, pending further consideration at this session.

Environmental chapter of the Polar Code

11.12 The Sub-Committee noted (DE 57/11/1) the outcome of MEPC 63's consideration of the environmental aspects of the Code, in particular that the Committee had endorsed the decisions taken by DE 55 concerning the development of an environmental chapter and was of the view that the overview of environmental issues to be considered as given in document MEPC 60/21/1 (Norway) provided the mandate for the work to be undertaken.

11.13 The Sub-Committee had for its consideration the following documents:

- .1 DE 57/11/9 (Denmark, Finland, Iceland, Norway and United States), proposing environmental topics for inclusion in the Polar Code, following the outline in document MEPC 60/21/1, and providing a first draft of an environmental chapter;
- .2 DE 57/11/12 (Russian Federation), supporting the inclusion of environmental topics in the Polar Code; providing detailed comments on the draft environmental chapter set out in document DE 57/11/9; and proposing the inclusion of provisions ensuring preparedness to respond to spills of oil and noxious substances;
- .3 DE 57/11/13 (FOEI and WWF), providing input relevant to proposed measures contained in the draft environmental chapter set out in document DE 57/11/9 related to MARPOL Annex V and the BWM Convention;
- .4 DE 57/11/14 (FOEI, WWF and Pacific Environment), commenting on the draft environmental chapter set out in document DE 57/11/9 and proposing the inclusion of alternative requirements for the discharge of sewage and grey water in polar waters;
- .5 DE 57/11/18 (Canada, Denmark and Norway), providing comments on the draft environmental chapter set out in document DE 57/11/9, in particular addressing the risks associated with the discharge of oil in polar waters under MARPOL Annex I and the use of biodegradable lubricants; and
- .6 DE 57/11/23 (EOCI, WWF and Pacific Environment), commenting on the proposals in document DE 57/11/9 and supporting the inclusion of more stringent standards related to operational releases of oil and oily mixtures by ships in Arctic waters and stern tube oil leakage in both polar regions.

11.14 In considering the proposals made in the above documents, the Sub-Committee noted that several delegations found some of them to be excessive, in particular those concerning stern tube lubrication, particularly sensitive sea areas (PSSAs), discharge of grey water (lack of port reception facilities) and biocide-free anti-fouling systems; and advocated a constructive and pragmatic discussion of these issues. Most of the delegations that spoke supported the proposals in document DE 57/11/9 as the basis for the discussions. The proposals set out in documents DE 57/11/12 and DE 57/11/14 were also widely supported.

11.15 Consequently, the Sub-Committee agreed that document DE 57/11/9 should form the basis for the work on the environmental chapter of the Code, while the caveats in paragraphs 7 (concerning a ban on the use and carriage of heavy fuel oil (HFO) on ships in the Arctic, see paragraph 11.18) and 14 (concerning the lack of MARPOL requirements addressing the discharge of grey water) of the document were upheld and referred to MEPC 65 for consideration and advice.

11.16 Following discussion, the Sub-Committee referred the above documents, together with the comments and decisions made, to the Polar Code Working Group for further consideration.

Use of heavy fuel oil (HFO) on ships operating in Arctic waters

11.17 The Sub-Committee considered document DE 57/11/11 (FOEI, CSC, IFAW, WWF and Pacific Environment), providing supplementary information to support the inclusion of a provision in the Polar Code banning the use of heavy fuel oil (HFO) on ships operating in Arctic waters, noting that a ban on HFO use is already in force for Antarctic waters (MARPOL Annex I, regulation 43).

11.18 Having noted views that the proposal contained too many policy aspects and was outside its remit, the Sub-Committee agreed to refer document DE 57/11/11 to MEPC 65 for consideration and advice.

Black carbon emissions from shipping in polar waters

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

11.20 In this connection, the Sub-Committee noted that the output "Consideration of the impact on the Arctic of emissions of black carbon from international shipping" is currently under consideration in the BLG Sub-Committee; that BLG 17 had been discussing the matter in detail (BLG 17/18, section 10) and established a correspondence group to develop a definition for black carbon emissions from international shipping; further consider measurement methods for black carbon; further identify, collate and investigate possible control measures to reduce the impact of black carbon emissions; and report to BLG 18; and that the target completion year for the output is 2015.

11.21 Having noted that the proposals in the document went beyond the scope of the work currently being carried out by the BLG Sub-Committee but that in any case the outcome of the work should be awaited before considering the issue further, the Sub-Committee agreed to refer document DE 57/11/20 to MEPC 65 for consideration and advice.

Hull, machinery and equipment

Ice classes

11.22 The Sub-Committee had for its consideration the following documents:

- .1 DE 57/11/7 (Finland and Sweden), describing and comparing the Finnish-Swedish ice-class rules (FSICR) and the IACS Polar Classes (PC), discussing their equivalence and identifying the main differences between them;

- .2 DE 57/11/15 (Denmark and Finland), discussing the selection of ice classes for ships operating in ice conditions in polar areas and addressing in particular the definition of ship category B in the draft Polar Code;
- .3 DE 57/INF.3 (Finland and Sweden), providing a dynamic analysis to define the operational limit speed for a ship, considering the load introduced by collision with an ice block, the result of which indicates that speed limits should be set for ships designed in accordance with ice classes IA Super and PC6; and
- .4 DE 57/INF.4 (Finland and Sweden), providing information on the safety of winter navigation in the Baltic Sea area, for use in the planning of ship operations in ice conditions.

11.23 In considering the above proposals, the Sub-Committee noted views that a unified global standard for ice classes, connecting the FSICR with the IACS PC, should be developed. The Sub-Committee noted in particular the views of the observer from IACS concerning the equivalency table of new and existing ice classes, the possible effect of footnotes referring between mandatory and non-mandatory parts of the draft Code and the appropriateness of identifying individual classification society notations.

11.24 Following discussion, the Sub-Committee referred the above documents, together with the comments made, to the Polar Code Working Group for further consideration.

Engine power requirements and Energy Efficiency Design Index (EEDI)

11.25 The Sub-Committee had for its consideration the following documents:

- .1 DE 57/11/8 (Finland and Sweden), showing the result of an analysis that recent higher ice-class cargo ship designs have considerably more installed power than will be permissible in future under the EEDI regulations; suggesting ways to address the problem; and proposing to invite the MEPC to consider the issue of the application of EEDI regulations to ships with a high independent icebreaking capability; and
- .2 DE 57/11/16 (Canada), commenting on document DE 57/11/8, analysing the possible measures for the application of EEDI to ships operating independently in heavy ice conditions and supporting to invite MEPC's opinion in this regard.

11.26 The delegations that spoke shared the concerns expressed by Finland and Canada and were of the view that this matter needed to be considered by the MEPC, especially the possible development of correction coefficients or the possible exemption of ice category A ships from the EEDI requirements, taking into account the relatively small number of such ships.

11.27 Following discussion, the Sub-Committee agreed to ask MEPC 65 for advice on the issue of the application of EEDI regulations to ships with a high independent icebreaking capability.

Machinery

11.28 The Sub-Committee noted document DE 57/11/4 (ISO), recommending the inclusion of a reference to ISO PAS 18215 (Ships and marine technology – Vessel machinery operations in polar waters – Guidelines) in chapter 5 (Machinery) of the draft Polar Code.

Equipment

Telemedical assistance

11.29 The Sub-Committee considered document DE 57/11/17 (France), proposing an amendment to paragraph 8.3.3.4 of the draft Polar Code to take into account telemedical assistance when addressing medical equipment on ships in polar areas and, having noted that the proposals were supported by a number of delegations, referred the document to the Polar Code Working Group for further consideration.

Life-saving appliances

11.30 The Sub-Committee considered documents DE 57/11/25 and DE 57/INF.9 (Iceland), stating that the present provisions of chapter 8 (Life-saving appliances and arrangements) of the draft Polar Code may not be effective enough to mitigate the specific hazards of operations in polar waters and provide the required level of safety for survivors both during and after evacuation (DE 57/11/25); and providing information on technical requirements for inflatable liferafts as required by Icelandic regulations on fishing vessels for use in polar conditions (DE 57/INF.9).

11.31 The Sub-Committee noted that, while the proposals were supported in principle, several delegations expressed concerns regarding the scope of application and the lack of verification that existing liferafts were insufficient, and consequently instructed the Polar Code Working Group to consider the proposals in document DE 57/11/25, taking into account the comments made in plenary.

Navigational/operational matters and Polar Water Operational Manual (PWOM)

11.32 The Sub-Committee considered the following documents:

- .1 DE 57/11/3 (Canada), containing an expert group's assessment of the relative importance of different risk factors for polar operations and identifying the most effective risk mitigation measures;
- .2 DE 57/11/10 (BIMCO), proposing to develop a concept for the safe operation in polar areas, based on the category of the ship, the seasonal zones of operation and the prevailing conditions at a given time of year;
- .3 DE 57/11/19 (IACS), in response to the correspondence group's report, suggesting that the PWOM should be included in the recommendatory section of the draft Code and providing some considerations regarding safe speed in ice to be included in the manual;
- .4 DE 57/11/21 (CLIA), suggesting a practicable way to manage the application of the Polar Code to individual ships and providing a flow chart, describing how the Code might practically apply by bringing the goals, functional requirements and prescriptive requirements together in a "Vessel Polar Operations Process"; and

- .5 DE 57/11/22 (CLIA), proposing a list of key elements which the PWOM should address and providing a draft general outline for the content of the manual.

11.33 Following discussion, the Sub-Committee, having noted the support for documents DE 57/11/3, DE 57/11/19, DE 57/11/21 and DE 57/11/22, referred them to the Polar Code Working Group for further consideration. With regard to document DE 57/11/10, having noted that several delegations expressed concerns in respect of the proposals contained therein, the Sub-Committee agreed to note it and did not refer it to the group.

Nautical charts for polar areas

11.34 The Sub-Committee considered document DE 57/11/24 (IHO), reporting on the unsatisfactory status of nautical charting in polar waters and the impact this has on navigation and proposing modifications to the draft Polar Code, highlighting the lack of hydrographic data and providing guidance to mariners.

11.35 Many delegations shared the concerns regarding the lack of adequate and reliable cartography expressed in the submission, which posed a significant risk to navigation and had the potential to affect the safety of shipping and search and rescue services in both polar regions.

11.36 Consequently, the Sub-Committee agreed that the document should be considered by the working group, in particular with regard to the responsibility of shipowners. Having noted that the NAV Sub-Committee had already considered chapter 9 (Navigation) of the draft Polar Code and had reported back to the Sub-Committee (see paragraph 11.3.2), the Sub-Committee also requested the group to identify in its report relevant matters that should be referred to the NAV Sub-Committee for further consideration. At the same time, the Sub-Committee agreed to bring the matter to the attention of the Committee for consideration and action as appropriate.

Establishment of the Polar Code Working Group

11.37 Subsequently, the Sub-Committee established the Polar Code Working Group and instructed it, taking into account comments and decisions made in plenary, to:

- .1 further develop the draft International Code of safety for ships operating in polar waters (Polar Code), on the basis of the report of the correspondence group (DE 57/11/6), taking into account the outcome of relevant IMO bodies and the documents submitted to this session, as appropriate;
- .2 advise the Sub-Committee on whether the correspondence group should be re-established and, if so, develop terms of reference for the group; and
- .3 submit a written report (part 1) by Thursday, 21 March 2013, continue working through the week and submit part 2 of the report, including the draft text of the Polar Code, to DE 58, as soon as possible after this session.

Report of the working group

11.38 Having considered the report of the working group (DE 57/WP.6), the Sub-Committee approved it in general and took action as described in the following paragraphs.

11.39 The Sub-Committee noted in particular:

- .1 the amended definition of Category C ship (DE 57/WP.6, paragraph 7), having noted the view of the delegation of China that the definition needed to be further refined since it currently included both ice-class and non-ice-class ships, whereas requirements for such ships should be clearly differentiated in the definition or in the relevant technical provisions to be developed at a later stage;
- .2 the agreement of the group that all ships operating in polar waters should have a Polar Ship Certificate and a Polar Water Operational Manual (DE 57/WP.6, paragraph 10), having noted the view of the delegation of Greece that any certification under the Polar Code should supplement existing SOLAS certificates in the form of an appendix;
- .3 the discussion within the group on the possibility of providing references to other ice-class rules in the Polar Code (DE 57/WP.6, paragraphs 11 to 14);
- .4 the progress made with the development of chapters 2 (Structural integrity) and 8 (Means of escape and life-saving appliances) (DE 57/WP.6, paragraphs 15 and 17);
- .5 the group's discussion on the issue of design temperature and temperature(s) to be used for defining the performance characteristics of equipment and systems (DE 57/WP.6, paragraph 16);
- .6 the view of the group on document DE 57/11/24 (see paragraph 11.36) in relation to a possible inclusion of the proposals contained therein in part B of the Code (DE 57/WP.6, paragraph 18);
- .7 the modified draft chapter 15 (Environmental protection) (DE 57/WP.6, paragraphs 19 to 34 and annex), having noted that the group did not support proposals to relocate section 15.5 (Location, protection and capacity of tanks for environmental protection purposes); and
- .8 that part 2 of the report of the working group (DE 57/WP.6/Add.1), including the text of the draft Polar Code, would be issued as soon as possible after this session.

Draft chapter 15 (Environmental protection)

11.40 Subsequently, the Sub-Committee requested MEPC 65 to consider the report of the group, and in particular the draft chapter 15 of the Polar Code (see paragraph 11.39.7), as an urgent matter, with a view to agreement in principle.

11.41 The delegation of Greece was of the view that the environmental issues needed careful consideration and did not agree with the referral of the chapter to MEPC at this stage.

11.42 The delegation of China stated that, while the Antarctic area was clearly defined as a Special Area for certain waste under the MARPOL Convention, the Arctic area was not, and while there were clear requirements for the Antarctic area in the MARPOL Convention, the differentiation between Antarctic and Arctic was very important and such differentiation should be taken into account during the development of the draft Polar Code. Regarding the Arctic area, the general control level for environmental issues should first be decided in a subcommittee or a committee and then the specific technical or operational requirements

could be developed, rather than rushing into the development of specific requirements. This would be the proper way ahead and improve the work efficiency.

11.43 The delegations of China, Greece, Panama, the Marshall Islands and Vanuatu, and the observers from ICS, BIMCO, INTERTANKO, CLIA and INTERCARGO all raised concern that the proposals presented were not accompanied by data based on evidence or justification in the form of studies addressing the actual environmental impact assessment, cost-benefit analysis or scientific justification. Particular concern was raised that proposals were made that would establish Special Area measures without adequate reception facilities and without the supporting studies usually associated with proposals for Special Areas or the subsequent scrutiny of the justification by MEPC.

11.44 Other delegations were of the opinion that the numerous documents submitted to the MEPC and the Sub-Committee contained adequate justification for proposals on additional environmental protection measures and that the lack of reception facilities should not be used as an argument for not adopting measures, as most ships were operating for limited periods of time in polar waters and discharge could take place outside those waters, where port facilities could be used. Furthermore, they pointed out that in future and where ship activities justify it, experience indicated that waste reception facilities would be put in place.

Re-establishment of the Polar Code Correspondence Group

11.45 The Sub-Committee agreed to re-establish the Polar Code Correspondence Group under the coordination of Norway¹ with the following terms of reference:

- .1 further develop the draft International Code of Safety for Ships Operating in Polar Waters, based on the report of the correspondence group (DE 57/11/6), the report of the working group at DE 57 (DE 57/WP.6 and DE 57/WP.6/Add.1), and the report of DE 57 (DE 57/25), taking into account the outcome of the consideration of the relevant chapters by other IMO bodies;
- .2 prepare draft amendments to mandatory IMO instruments (SOLAS and MARPOL), together with the associated draft MSC and MEPC resolutions, taking into consideration document MSC 91/8/1; and
- .3 submit a report to DE 58.

¹

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Intersessional Working Group

11.46 Following discussion of the request of the group to consider the holding of an intersessional meeting of the Polar Code Working Group in the autumn of 2013, the Sub-Committee agreed that an intersessional meeting should be held, with terms of reference as set out in paragraph 11.45 above, and invited the Committee to approve the above request, for subsequent endorsement by C 110.

12 CLASSIFICATION OF OFFSHORE INDUSTRY VESSELS AND CONSIDERATION OF THE NEED FOR A CODE FOR OFFSHORE CONSTRUCTION SUPPORT VESSELS

12.1 The Sub-Committee recalled that DE 56 had agreed that there was an urgent need to further consider the application of existing IMO instruments to offshore wind farm vessels (i.e. offshore wind farm construction vessels (OWFCV) and offshore wind farm service craft (OWFSC)), including a gap analysis, and to further clarify the application of relevant requirements concerning industrial personnel transported by sea.

12.2 The Sub-Committee had for its consideration the following documents:

- .1 DE 57/12 (United Kingdom), presenting a cross-section of views and comments on the identification of the IMO technical standards applicable to ships involved in offshore industries, with special emphasis on the use of the term "special personnel", following focal point correspondence between the United Kingdom and a number of other Members Governments and organizations;
- .2 DE 57/12/1 (Germany and Netherlands), commenting on document DE 57/12 and further demonstrating the need to develop clear guidance on categorizing offshore personnel on board various offshore industry vessels and the applicability of IMO instruments such as the SPS and MODU Codes to offshore construction vessels;
- .3 DE 57/12/2 (Vanuatu), commenting on and supporting the discussion of the transport of industrial personnel by sea in document DE 57/12, with a view to further clarifying categories of personnel in terms of applying relevant requirements to offshore industry vessels;
- .4 DE 57/12/3 (United Kingdom), providing comments on the focal point document DE 57/12, in particular concerning the implementation of offshore related codes and guidelines on the basis that they provide equivalent standards of safety as mandatory instruments and the treatment of "special personnel";
- .5 DE 57/12/4 (CESA), commenting on document DE 57/12 and providing further information and proposals for offshore service craft, in particular basic elements of a safety standard for offshore wind farm service vessels which would ensure the safe transfer of offshore personnel;
- .6 DE 57/12/5 (CESA), commenting on document DE 57/12 and providing further information and proposals for wind farm erection vessels, attaching draft guidelines for the design and construction of such vessels; and

- .7 DE 57/INF.2 (Germany), providing information about an IMO workshop which took place on 15 May 2012 at IMO Headquarters, discussing the need to develop a further instrument or amend relevant existing IMO instruments on offshore industry vessels supporting the erection and operation of wind farms.

12.3 The observer from IMCA, while reminding the Sub-Committee of the conclusions of DE 56, i.e. to concentrate on guidance for wind farm vessel standards and on clarifying the transportation of industrial personnel, expressed concern that many of the documents submitted seemed to be seeking to reopen broader discussions about the classification of offshore construction support vessels and of offshore personnel generally. IMCA pointed out that there were differences in the way different flag and coastal States apply IMO requirements to offshore supply vessels (OSVs), that the comments in earlier submissions were related to coastal States imposing alternative standards and retrospective application of the SPS Code and that a more consistent approach would benefit the industry, maintaining a certain amount of flexibility to accommodate novel vessel designs. IMCA could support further consideration of the proposed guidance on vessel standards, particularly for service vessels, but this should be in the context of wind farms only.

12.4 In the ensuing discussion, the following views were, inter alia, expressed:

- .1 guidance on the matter was needed but should not obstruct any national legislation, taking into account that most of the operations concerned took place in national waters;
- .2 guidelines for wind farm construction vessels and for wind farm service vessels should be developed; however, these types of vessels should not be regulated differently than other OSVs;
- .3 the question of the transport of industrial passengers, with different characteristics than passengers, needed to be resolved without weakening the existing passenger ship standards; and
- .4 the scope of the item should include means of access from OSVs to wind turbines.

Establishment of a drafting group

12.5 Following discussion, the Sub-Committee established a drafting group on Offshore Industry Vessels and instruct it, taking into account the comments made in plenary and documents DE 57/12, DE 57/12/1, DE 57/12/2, DE 57/12/3, DE 57/12/4, DE 57/12/5 and DE 57/INF.2, to:

- .1 develop terms of reference for a Correspondence Group on Guidelines for offshore wind farm vessels, not addressing transport of industrial personnel; and
- .2 develop a justification for a new output addressing the transport of more than 12 industrial personnel on board offshore industry vessels engaged on international voyages.

Report of the drafting group

12.6 Having received the report of the drafting group (DE 57/WP.9), the Sub-Committee approved it in general and took action as described in the following paragraphs.

Establishment of a correspondence group

12.7 The Sub-Committee agreed to establish a correspondence group on Guidelines for Offshore Wind Farm Vessels, coordinated by the United Kingdom², with the following terms of reference:

- .1 develop draft Guidelines for offshore wind farm vessels, not addressing the carriage of industrial personnel, taking into account the documents submitted to DE 57 under agenda item 12, in particular the annexes to documents DE 57/12/4 and DE 57/12/5, the comments made in plenary at DE 57, and the unique design features and service characteristics of these vessels;
- .2 consider, when developing the above draft Guidelines, in particular the following points:
 - .1 the scope of the draft Guidelines, e.g. Guidelines for the design and construction of offshore wind farm construction vessels and Guidelines for offshore wind farm service craft;
 - .2 the terminology to be used;
 - .3 current conventions, codes and guidelines to be referred to in the guidelines, including any deviations from such instruments and, if so, to what extent; and
 - .4 survey and certification, as applicable;
- .3 develop guidelines addressing the carriage of more than 12 industrial personnel on board vessels engaged on international voyages;³
- .4 submit a report to DE 58.

Carriage of industrial personnel

12.8 The Sub-Committee agreed that the words "carriage of industrial personnel" should be used instead of "transport of industrial personnel".

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³ Subject to approval of a relevant new output by MSC 92. Refer to paragraphs 12.9 and 12.10.

12.9 The Sub-Committee considered and agreed to the justification for a new output on "Guidelines addressing the carriage of more than 12 industrial personnel on board vessels engaged on international voyages" prepared by the group, as set out in annex 10, for submission to MSC 92 for consideration and approval, with a view to including the new output in the 2014-2015 biennial agenda of the Sub-Committee and in the provisional agenda for DE 58.

12.10 Consequently, the Sub-Committee agreed to include additional instructions pertaining to the matter in the terms of reference of the correspondence group (see paragraph 12.7.3), subject to the approval of the new output by MSC 92.

12.11 The delegations of Denmark, Norway and Panama reserved their positions with regard to the request for the new output.

13 REVISION OF TESTING REQUIREMENTS FOR LIFEJACKET REFERENCE TEST DEVICES IN RESOLUTION MSC.81(70)

13.1 The Sub-Committee recalled that DE 56, having noted the general support for the further consideration of this matter, instructed the LSA Correspondence Group to consider the improvement of testing procedures for the in-water performance of lifejackets using the reference test device (RTD) concept, in particular whether or not fixed minimum performance criteria would enhance the repeatability of tests; and prepare draft amendments to the *Revised Recommendation on testing of life-saving appliances* (resolution MSC.81(70)) (RoT) and, if necessary, draft amendments to the LSA Code.

Report of the correspondence group and related submissions

13.2 The Sub-Committee considered the following documents:

- .1 DE 57/13/1 (Japan), containing the report of the LSA Correspondence Group, including draft amendments to the LSA Code and the RoT, as set out in the annex to the report, and flagged up a number of issues that need further consideration;
- .2 DE 57/13 (United States), proposing further amendments to annex 1 (Adult reference test device (RTD) design and construction) to the RoT, in order to improve the instructions for constructing an adult lifejacket RTD; and providing a draft MSC circular on Guidelines for validation of completed adult lifejacket reference test devices (RTD), to be referenced in the draft amendments to the RoT;
- .3 DE 57/13/3 (Canada), highlighting concern with a return to minimum threshold criteria for lifejacket acceptance and the use of the terminology "fixed minimum" in IMO instruments for lifejackets; and pointing out that the RTD methodology was introduced due to inconsistencies in lifejacket testing and no viable alternative is yet available;
- .4 DE 57/13/4 (Dominica), commenting on the various submissions discussing lifejacket RTDs, including the LSA Correspondence Group report; supporting the continued use of the RTD as the only viable option to achieve consistency; and opposing the use of so called "fixed minimums"; and

- .5 DE 57/13/5 (Canada), commenting on the report of the LSA correspondence Group and on document DE 57/13 on lifejacket RTDs, pointing out that the proposals in both documents provide a means to further reduce subject variability and improve the consistency of lifejacket performance with the RTD assessment criteria.

13.3 In considering the action requested by the correspondence group (DE 57/13/1, paragraph 29) and the related submissions, the Sub-Committee took decisions as described in the following paragraphs.

Draft amendments to the LSA Code and the RoT

13.4 Following consideration of the two options for amendments to the LSA Code and the RoT prepared by the group, i.e. option 1: lifejacket should comply with RTD criteria only; and option 2: lifejacket should comply with fixed minimum performance criteria or RTD criteria, the Sub-Committee agreed to option 1.

13.5 The observer from ILAMA, stating that they would have preferred option 2, urged caution regarding the adoption of such a substantive change to the testing provisions for lifejackets, pointing out that this might necessitate retesting of already approved lifejackets, and that, therefore, the entry-into-force date of the revised requirements should be carefully considered.

13.6 Commenting on ILAMA's view, the delegation of the United States pointed out that the RTD methodology under "Option 1", in document DE 57/13/1, had in fact been in force since July 2010 and that, therefore, it did not agree that a further "validation period" as proposed by ILAMA was necessary, as the refinements to the methodology as agreed at this session were not significant. Further, the detailed RTD specifications in document DE 57/13 did not represent a substantive change in the RTD methodology, but rather were based on the original RTD prototypes that formed the basis for the current specifications contained in the RoT.

13.7 The Sub-Committee, having noted that the actions requested by the group in paragraphs 9.2 and 9.3 of their report had been superseded by the earlier decision to agree to option 1 (see paragraph 13.4), endorsed the views of the group concerning the improvement of testing procedures based on the RTD concept; agreed to the proposed amendment to paragraph 2.7.2.3. of part 1 of the RoT to adjust the weight and height requirements for female test subjects; and agreed that the requirement for a jump and drop test (2.2.1.8) for child and infant lifejackets needed to be revised; noting that the above issues are already reflected in the draft amendments to the LSA Code and the RoT proposed by the group.

13.8 The Sub-Committee considered and agreed to modifications to the proposed draft amendments to paragraph 2.2.1.8 of the LSA Code, proposed by the delegation of Canada, as follows:

"2.2.1.8 ...

- .4 for infants the jump and drop tests shall be exempted;
- .5 for children, 5 of the 9 subjects shall perform the jump and drop tests; and
- .6 in lieu of 2.2.1.8.5, manikins may be substituted for human subject tests."

13.9 Consequently, the Sub-Committee agreed to draft amendments to the LSA Code, as set out in annex 11, for submission to MSC 92 for approval, with a view to subsequent adoption.

13.10 In considering the proposed draft amendments to part 1 of the RoT (DE 57/13/1, annex 2), the Sub-Committee took the following action:

- .1 with regard to the text in square brackets in the new sentence for proper donning and fastening of the RTD, proposed to be added to paragraph 2.8.4 of the RoT, agreed to retain the text and to delete the square brackets;
- .2 with regard to the two options for the method for selecting the test subjects for the jump and drop test which are proposed for inclusion in paragraph 2.8.8, agreed to:
 - .1 delete the text in square brackets (both options);
 - .2 delete the words "at least five of" in the first sentence of the paragraph; and
 - .3 retain the fourth sentence:

"The test should be repeated from a height of at least 4.5 m but, when jumping into the water, the test subject should hold on to the lifejacket during water entry to avoid possible injury.";
- .3 with regard to the proposed amendments to paragraph 2.8.9.1 of the RoT concerning assessment after drop test, agreed to amend the paragraph to read:
 - .1 surface the test subject in a face-up position with an average freeboard for all the subjects of not less than the average determined for the RTD after the turning test in accordance with 2.8.6 minus 15 mm;" and
- .4 with regard to the replacement of the text in the relaxation requirements for infant lifejackets, agreed to:
 - .1 add the following sentence at the end of paragraph 2.9:

"The tests may be modified for child test subjects under 12 years of age who are not comfortable in water, so as to ensure their safety and cooperation.";
 - .2 delete the words "infant lifejacket" in paragraph 2.9.1.5; and
 - .3 replace the text of the chapeau of paragraph 2.9.3 with the following:

"2.9.3 Infant lifejackets should meet the requirements of 2.9.2.1 and 2.9.2.2, however, the requirements of torso angle, face plane and mobility may be relaxed if necessary in order to:".

13.11 Consequently, the Sub-Committee agreed to draft amendments to the Revised Recommendation on testing of LSA (see also paragraph 13.7), as set out in annex 12, for submission to MSC 92 for approval, with a view to adoption in conjunction with the adoption of the associated amendments to the LSA Code agreed earlier (see paragraph 13.9).

Possible inconsistency between RoT and MSC/Circ.922

13.12 The Sub-Committee, having noted that the group had identified some possible inconsistencies between the proposed amendments to the RoT (see paragraph 13.11) and the Recommendations on performance standards and tests for thermal protective lifejackets (TP-lifejackets) (MSC/Circ.922), but had not discussed these issues as they were outside the scope of its terms of reference, invited Member Governments and international organizations to submit any comments and proposals on the matter to DE 58.

Adult reference test device (RTD) design and construction

13.13 In considering the proposals in document DE 57/13 (United States), the Sub-Committee:

- .1 agreed to draft amendments to the RoT to replace annex 1 (Adult reference test device (RTD) design and construction) thereof, for inclusion in the set of amendments to the RoT agreed earlier (see paragraph 13.11 and annex 12);
- .2 agreed that the tables and figures contained in the proposed new annex 1 of the RoT should be arranged with the relevant text;
- .3 agreed to the draft MSC circular on Guidelines for validating the construction of a completed adult reference test device (RTD), set out in annex 13, for submission to the Committee for approval in principle and final approval in conjunction with the adoption of the associated amendments to the RoT agreed earlier (see paragraph 13.13.1);
- .4 agreed that the current construction guidelines for infant and child RTDs could be further discussed at DE 58; and
- .5 noted the proposal to circulate digital media to make suitable digital cutting patterns available in connection with IMO instruments to facilitate accurate application.

Number of specimens required for tensile strength tests

13.14 Following consideration of document DE 57/13/2 (China), proposing to increase the number of specimens of lifejacket buoyancy material as requested in paragraph 2.6 of the RoT from eight to twelve, to accommodate the requirements in paragraph 2.6.8 (Tensile strength test), adopted by resolution MSC.200(80), the Sub-Committee requested the LSA Working Group, established under agenda item 7, to consider the proposal and advise it as appropriate.

13.15 Having considered the part of the report of the LSA Working Group (DE 57/WP.5) dealing with the matter, the Sub-Committee agreed to relevant amendments to paragraph 2.6 of part 1 of the RoT, as set out in annex 2 to document DE 57/WP.5, for inclusion in the set of amendments to the RoT agreed earlier (see paragraph 13.11 and annex 12).

Completion of the work on the output

13.16 In view of the above decisions, the Sub-Committee invited the Committee to note that the work on this output had been completed.

14 DEVELOPMENT OF GUIDELINES FOR WING-IN-GROUND CRAFT

14.1 The Sub-Committee recalled that DE 56, having considered document DE 56/18 (Republic of Korea), providing information and proposals on the development of final guidelines for wing-in-ground (WIG) craft, had agreed that further detailed consideration of the proposals contained in the document was necessary and that ICAO should be consulted with regard to proposed changes to the definition of WIG craft types; and had invited Member States and international organizations to submit comments and proposals to this session.

14.2 The Sub-Committee had for its consideration document DE 57/14 (Russian Federation), proposing a substantial number of amendments to the Interim Guidelines for wing-in-ground (WIG) craft (MSC.1/Circ.1054 and Corr.1) and recommending a thorough analysis of WIG craft casualty reports to develop well-founded requirements and safety measures. However, due to lack of time, the Sub-Committee decided to defer consideration of this agenda item to DE 58.

Extension of target completion year

14.3 In view of the above, the Sub-Committee invited the Committee to extend the target completion year for the output to 2015.

15 REVISION OF THE RECOMMENDATION ON CONDITIONS FOR THE APPROVAL OF SERVICING STATIONS FOR INFLATABLE LIFERAFTS (RESOLUTION A.761(18))

15.1 The Sub-Committee recalled that DE 56 had considered document DE 56/17 (ILAMA), proposing to amend the *Recommendation on conditions for the approval of servicing stations for inflatable liferafts* (resolution A.761(18)) (the Recommendation) and the *Guidelines for the approval of inflatable liferafts subject to extended service intervals not exceeding 30 months* (MSC.1/Circ.1328) (the Guidelines), with regard to date-expired items in the contents of packed inflatable liferafts and to eliminate any inconsistency between them. DE 56, while noting that some delegations did not see such inconsistency, supported the need for amendments with regard to date-expired items, and invited Member States and international organizations to submit concrete proposals to this session.

15.2 The Sub-Committee had for its consideration document DE 57/15 (ILAMA), proposing to amend paragraph 5.11 of the Recommendation with regard to date-expired items in the contents of a packed inflatable liferaft, as set out in paragraph 6 of their document, in order to bring them in line with the provisions in the Guidelines. However, due to lack of time, the Sub-Committee decided to defer consideration of this agenda item to DE 58.

Extension of target completion year

15.3 In view of the above, the Sub-Committee invited the Committee to extend the target completion year for the output to 2014.

16 AMENDMENTS TO SOLAS REGULATION II-1/11 AND DEVELOPMENT OF ASSOCIATED GUIDELINES TO ENSURE THE ADEQUACY OF TESTING ARRANGEMENTS FOR WATERTIGHT COMPARTMENTS

16.1 The Sub-Committee recalled that DE 56, following consideration of documents submitted by IACS (DE 56/16 and DE 56/INF.11), Japan (DE 56/16/1), the Republic of Korea (DE 56/16/2) and China (DE 56/16/3), had generally agreed to take the matter forward and require shipyards to implement appropriate quality management systems, such as at least ISO 9001 or an equivalent, in order to ensure an appropriate safety level. With respect to the proposed draft Guidelines for procedures of testing tanks and tight boundaries (DE 56/INF.11) and associated draft amendments to SOLAS regulation II-1/11 (MSC 86/23/13), DE 56 agreed that they needed further consideration and invited interested parties to submit comments and proposals to this session.

16.2 The Sub-Committee had for its consideration the following documents:

- .1 DE 57/16 and DE 57/INF.6 (IACS), remaining supportive of the proposed amendments to SOLAS regulation II-1/11 as presented in paragraph 12 of document MSC 89/23/13, and submitting a summary of IACS responses to comments received regarding documents DE 56/16 and the draft Guidelines set out in document DE 56/INF.11 (DE 57/16, annex) and accordingly updated draft Guidelines for procedures of testing tanks and tight boundaries (DE 57/INF.6, annex); and
- .2 DE 57/16/1 and DE 57/INF.7 (China, Japan, Republic of Korea and IACS), reporting the work of a joint industry working group (JWG) regarding quality control of shipyards when carrying out test for tanks and tight boundaries according to the procedures set out in document DE 57/16/INF.6, and providing a draft Guidance on survey of the quality management systems on testing tanks and tight boundaries for shipyards, developed by the JWG, which is proposed to be an annex to the Guidelines for procedures of testing tanks and tight boundaries, set out in the annex to document DE 57/INF.6,

and noted that the Secretariat, to facilitate the discussions, had prepared a working paper (DE 57/WP.3), containing the complete text of the proposed draft Guidelines (DE 57/INF.6, annex, and DE 57/INF.7, annex) in the three working languages.

16.3 Due to lack of time, the Sub-Committee decided to defer further consideration of the agenda item to DE 58.

16.4 In this connection, the Sub-Committee noted a statement by the observer from IACS, who recalled that the Committee had instructed the Sub-Committee in June 2009 (MSC 86) to consider the issue of testing arrangements of watertight compartments as a high-priority item and had identified two sessions as being necessary to complete this work. IACS also recalled that, when the issue had been added to the agenda of DE 56 for the first time, IACS had submitted documents, including draft texts, and that again they had submitted or co-sponsored documents to DE 57, which took account of the limited plenary discussion at DE 56; however, to date, there had been no detailed examination of these texts. IACS further noted that at both DE 56 and DE 57 no papers had been submitted commenting on the proposals to amend SOLAS, develop supporting technical guidelines and develop provisions relating to an associated shipyard quality system. Further, the Committee's Guidelines indicated that correspondence groups were an effective and efficient means of progressing work, particularly when draft texts are available and IACS urged the

Sub-Committee to consider and review how it was going to make progress on this item and fulfil the mandate given to it by its parent body.

16.5 The delegation of Japan recalled that they had submitted documents on quality management of shipyards jointly with China, the Republic of Korea and IACS and stated that it was very unfortunate that their consideration had been postponed to the next session due to time constraints. Japan offered to work with interested Governments and international organizations on those documents for the possible preparation of a joint submission to DE 58.

16.6 Consequently, in order to facilitate the work at DE 58, the delegation of China, who led the work of the JWG which prepared the draft Guidance on survey of the quality management systems on testing tanks and tight boundaries for shipyards (see paragraph 16.2.2), offered to coordinate further intersessional work on the draft Guidance and invited other interested parties to join them for this purpose.⁴ The observer from the EC expressed appreciation for the offer.

Extension of target completion year

16.7 In view of the above, the Sub-Committee invited the Committee to extend the target completion year for the item to 2015.

17 PROVISIONS FOR THE REDUCTION OF NOISE FROM COMMERCIAL SHIPPING AND ITS ADVERSE IMPACTS ON MARINE LIFE

17.1 The Sub-Committee recalled that DE 56, having considered document DE 56/24 (United States), providing information on the issue of noise from commercial shipping and its adverse impact on marine life and proposing a framework concerning the development of non-mandatory, technical guidelines to minimize underwater noise, and having noted that many delegations supported the development of guidelines, established a correspondence group to examine available options for ship-quieting technologies and operational practices and to develop non-mandatory draft guidelines for reducing underwater noise from commercial ships.

17.2 In this connection, the Sub-Committee noted that MEPC 63 had noted the progress made in the matter and had referred documents MEPC 62/19 (ISO), MEPC 62/19/1 (Germany) and MEPC 62/INF.22 (Spain)⁵ to it for consideration and that MEPC 64, having noted the outcome of DE 56, had invited DE 57 to report on the outcome of its work to MEPC 65.

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MEPC 62 had deferred consideration of these three documents to MEPC 63.

Documents and other information submitted

17.3 The Sub-Committee had for its consideration the report of the correspondence group (DE 57/17), submitted by the United States, containing draft Guidelines for minimizing underwater noise from commercial ships, developed by the group, for further detailed consideration by the Sub-Committee, and presenting a number of proposals for further work on the matter that go beyond the terms of reference of the group and should be considered by the MEPC.

17.4 The Sub-Committee also briefly considered the three documents referred to it by MEPC 63, i.e.:

- .1 MEPC 62/19 (ISO), providing information on the development of ISO standard 16554 on Protecting marine ecosystem from underwater irradiated noise – Measurement and reporting of underwater sound radiating from merchant ships;
- .2 MEPC 62/19/1 (Germany), providing information to narrow the focus of global shipping noise towards the most important noise contributor, the screw-propeller, as the dominating propulsion type of ships, and suggesting that, therefore, any activities should be directed to reducing the underwater noise level produced by these propeller types; and
- .3 MEPC 62/INF.22 (Spain), providing information on ongoing research to evaluate shipping noise impacts on cetaceans.

17.5 The Sub-Committee further noted information provided by the observer from ISO, in particular that ISO 16554 – Ship and marine technology – Measurement and reporting of underwater sound radiated from merchant ships – deep-water measurement, was expected to be published in 2013. The standard would provide shipyards, shipowners and ship surveyors with a well-established measurement method for underwater sound radiated from merchant ships for use at the final delivery stage of ships, e.g. at official sea trials, and that classification societies may issue a notation on underwater sound level radiated from the ship under survey using the measurement results conducted according to ISO 16554. ISO also informed that ISO/TC8/SC2 was now developing ISO 16554-2 Ship and marine technology – Measurement and reporting of underwater sound radiated from merchant ships – shallow-water measurement, and the draft would be considered in June 2013.

17.6 Some delegations, while acknowledging that the Guidelines proposed by the Correspondence Group on Minimizing Underwater Noise could later be improved based upon operational experience and any other relevant developments, welcomed their development as a means to establish a consistent approach that would assist designers, shipowners and ship operators in evaluating how much noise reduction is possible for new and existing ships when compared to existing ships of similar type, size and propulsion. Other delegations considered that the Guidelines were not mature enough and too prescriptive to serve as guidance, that their implementation would cause practical problems and be cost intensive, and that, therefore, they would need further detailed consideration.

Consideration of the report of the correspondence group

17.7 The Sub-Committee considered the action requested by the correspondence group (DE 57/17, paragraph 10) and, with regard to the paragraphs in square brackets in the draft Guidelines annexed to the report, agreed to:

- .1 request the drafting group (see paragraph 17.9) to redraft paragraph 3 of the Preamble on evaluation of noise reduction regarding the required evaluation;
- .2 delete the square brackets around section 3 (Definitions) and delete the text of paragraphs 3.6 and 3.7;
- .3 delete the square brackets around paragraphs 4.2 and 4.3 concerning computational models;
- .4 add a reference to ISO standard 16554 to paragraph 5.1.1 concerning measurement standards and delete the paragraph in square brackets following paragraph 5.1.1;
- .5 delete the text in square brackets in the first sentence of paragraph 6.1.1 as well as paragraphs 6.1.1.1 and 6.1.1.2 concerning propellers and paragraph 6.1.2;
- .6 retain the square brackets in paragraph 6.1.3 concerning ice-strengthening of propellers;
- .7 retain section 6.2 on hull form design in square brackets and instructed the drafting group to optimize the text;
- .8 delete the text of paragraphs 7.2.3 concerning propulsion technologies, 7.4 concerning large HVAC (heating, ventilation and air-conditioning) fans, 7.5 regarding sea pipe systems and 8.3 regarding inspection and maintenance provisions, as well as the second sentence of paragraph 8.1;
- .9 retain the text of paragraph 8.4 concerning the selection of ship speed and delete the square brackets; and
- .10 retain the text of section 9 regarding effectiveness of noise reduction strategies and delete the square brackets; however, keep paragraph 9.6.4 in square brackets.

17.8 Having considered the proposals for further work on the matter, as listed in paragraph 9 of document DE 57/17, which the group considered to be beyond its terms of reference, the Sub-Committee agreed to refer them to MEPC 66 for consideration.

Establishment of a drafting group

17.9 Following consideration, the Sub-Committee established a Drafting Group on Minimizing Underwater Noise and instructed it, on the basis of document DE 57/17 and taking into account documents MEPC 62/19, MEPC 62/19/1 and MEPC 62/INF.22 and comments and decisions made in plenary, to further develop the draft Guidelines for minimizing underwater noise from commercial ships and prepare an associated draft MEPC circular.

Report of the drafting group

17.10 Having considered the report of the drafting group (DE 57/WP.8), the Sub-Committee approved it in general and, having noted the discussions in the group, agreed to retain the text in square brackets in paragraphs 6.1.5 and 6.2 and to delete

paragraph 8.4 of the draft Guidelines (DE 57/WP.8, annex). With regard to paragraph 3 of the Preamble, the Sub-Committee agreed to keep it in square brackets for a decision by the MEPC.

17.11 Consequently, the Sub-Committee agreed to a draft MEPC circular on Guidelines for the reduction of underwater noise from commercial shipping, as set out in annex 14, for submission to MEPC 66 for consideration with a view to approval.

18 DEVELOPMENT OF REQUIREMENTS FOR ONBOARD LIFTING APPLIANCES AND WINCHES

18.1 The Sub-Committee recalled that DE 56, having considered documents DE 56/2 (Secretariat), DE 56/22/2 (Secretariat), DE 56/22/3 (ICHCA), DE 56/22/3 (Norway), DE 56/22/6 (ISO), DE 56/INF.12 and DE 56/INF.13 (Japan), supported the need to proceed with the matter and included the output in the provisional agenda for this session.

18.2 The Sub-Committee noted in this connection that DSC 16 had forwarded to DE 57 for consideration under this agenda item document DSC 16/5/5 (ICHCA), providing information on the outcome of an investigation regarding accidents involving ships' cranes. The document highlighted that it is generally accepted that requirements relating to cargo handling lifting appliances are developed by ILO as part of its safety dock work provisions; the current ILO Convention No.152 only applied to the carrying out of dock work; SOLAS contained no specific requirements relating to ships' lifting appliances; there is no requirement to class ships' cranes and very few are classed; primary causes of accidents with lifting appliances are often due to bad maintenance or lack of maintenance; and ILO should amplify the guidance in its Code of Practice on thorough examinations in respect of slewing rings and holding down bolts.

18.3 The Sub-Committee had for its consideration the following documents:

- .1 DE 57/18 (Liberia, Vanuatu and IADC), emphasizing that the output should not be limited to the development of relevant SOLAS requirements since also other mandatory and non-mandatory instruments contain provisions relating to lifting appliances and winches, in particular the MODU Code; and providing information on the types of specialized lifting appliances and winches, and the standards relevant thereto, found on MODUs and other vessels employed in offshore exploration and production activities;
- .2 DE 57/18/1 (Republic of Korea), stressing the need for uniformly applied international standards for onboard lifting appliances and winches in the form of SOLAS requirements; suggesting that the scope of the work should also include inspection, PSC guidelines, and performance, type approval and test standards; proposing two options for relevant SOLAS requirements: either referencing classification society standards or developing a stand-alone SOLAS regulation together with associated guidelines; and providing draft SOLAS amendments and inspection guidelines;
- .3 DE 57/18/2 (ICHCA), stressing the need for relevant mandatory requirements, especially in view of the very high number of incidents, also involving fatalities and serious injuries; and proposing draft amendments to SOLAS chapter II-1, set out in the annex to the document, to ensure design, certification, testing and thorough examination of onboard lifting appliances;

- .4 DE 57/18/3 (Japan), providing a draft framework for the development of deliverables for onboard lifting appliances and winches which includes the development of new SOLAS requirements and associated guidelines addressing structure and strength, installation, maintenance, inspection and certification and an Operational Manual;
- .5 DE 57/18/4 and DE 57/INF.5 (New Zealand), while supporting the development of SOLAS requirements and associated guidelines, commenting on the proposals made in documents DE 57/18/1, DE 57/18/2 and DE 57/18/3 and proposing to include requirements for winches in SOLAS regulation II-1/3-8 (Towing and mooring equipment) and to amend regulation VI/5 to ensure the safe operation of lifting appliances. Document DE 57/INF.5 provides relevant extracts from ILO Convention No.152 relating to onboard lifting appliances, for use in the discussions on the output; and
- .6 DE 57/18/5 (IMCA), commenting on documents DE 57/18 and DE 57/18/1; providing further information on specialized lifting appliances employed in the offshore sector; pointing out that appropriate industry design and construction are already in place; and suggesting to focus the work on requirements for routine inspection and maintenance of lifting appliances and winches.

18.4 In this connection, the Sub-Committee recalled that MSC 89, when including the item in the Sub-Committee's biennial agenda, had agreed that ILO should be consulted on this matter to avoid any duplication of work; the incident reports identified by FSI 19 (FSI 19/19, paragraph 5.21) should be taken into account; and the Sub-Committee should first agree on the specific deliverables before undertaking any technical work and seek the Committee's approval accordingly.

18.5 In view of the above instructions of the Committee, the Sub-Committee agreed to request the Secretariat to liaise with ILO to inform it of the ongoing work and invite its participation; and that the very serious and serious incident reports concerning the **Blest Marine** (C0007807) and **Creciente** (C0006716), which have been analysed by the FSI Sub-Committee, should be taken into account in the considerations under the output.

18.6 In the ensuing discussion, the following views were, inter alia, expressed:

- .1 while some delegations were of the view that this was an ISM Code issue to be addressed in the ship's Safety Management System (SMS) which should be considered under that instrument, other delegations supported the development of specific SOLAS requirements with associated guidelines on topics such as structure and strength, installation, maintenance, inspection, certification and an operational manual;
- .2 the scope of the issue, in particular the applicability to certain ship types and sizes, should be addressed before embarking on any technical work, with some delegations stating that it should be limited to cargo-related operations;
- .3 any requirements should apply to new and existing ships;
- .4 lifts and escalators on passenger ships should not be included in the scope of the item;

- .5 the work should cover all lifting appliances but may especially focus on onboard cranes and winches;
- .6 existing requirements should be referenced as far as possible to avoid any duplication of work, while it was noted that not all recognized organizations have requirements for such equipment;
- .7 the proposals in documents DE 57/18/1 and DE 57/18/3 were widely supported; and
- .8 work should focus on maintenance issues since many of the accidents reported were caused by failure to properly maintain the appliances and in this regard the human element should be taken into consideration.

Establishment of a working group

18.7 Following consideration, the Sub-Committee established a Working Group on Lifting Appliances and Winches and instructed it, taking into account the comments and decisions made in plenary, the documents submitted under this agenda item as well as those submitted to DE 56 on the matter, document DSC 16/5/5 and the FSI 19 incident reports (see paragraph 18.5), to:

- .1 develop a plan for the work to be carried out under the agenda item, identifying the specific deliverables;
- .2 give preliminary consideration to draft amendments to IMO instruments, as appropriate, and any associated guidelines, addressing the requirements for onboard lifting appliances and winches, and advise the Sub-Committee accordingly; and
- .3 consider whether a correspondence group should be established and, if so, develop terms of reference for the consideration of the Sub-Committee.

Report of the working group

18.8 Having considered the report of the working group (DE 57/WP.7), the Sub-Committee approved it in general and took action as described in the following paragraphs.

18.9 The Sub-Committee noted (all references in this paragraph relate to the report of the group, document DE 57/WP.7):

- .1 the plan of action for developing requirements for onboard lifting appliances and winches, developed by the group (annex 1);
- .2 the recommendation of the group to use as initial reference a preliminary list of existing regulations and standards related to onboard lifting appliances and winches (annex 2);
- .3 the recommendation of the group that future guidelines should have a mandatory status and an initial list of existing IMO instruments identified by the group that may need to be amended (paragraphs 8 and 9);

- .4 the view of the group that guidelines should be applicable to all types of ships, taking into account the requirements of SOLAS regulation I/3 and that further discussion on this matter is needed (paragraphs 10 to 12);
- .5 the view of the group that personnel/passenger lifts and escalators on board ships should not be included in the scope of application, as well as any equipment regulated by the LSA Code and that further discussion on this matter is needed (paragraphs 13 and 14);
- .6 with regard to the application of guidelines to new and/or existing ships, the view of the group that future guidelines should be applicable to all ships and that provisions addressing the issue of design should only apply to newly installed equipment; but provisions addressing operation, maintenance, inspection and certification should apply to new and existing ships (paragraph 15). The Sub-Committee noted in particular that, unless the entity providing certification of an existing lifting appliance was involved in its design review/approval and its fitting onboard, there will need to be further and careful consideration of how such certification can be undertaken;
- .7 with regard to the issue of certification in the context of guidelines, the view of the group that a transitional period for existing ships should be considered (paragraph 16);
- .8 the view of the group that fishing vessels, since there are no mandatory international instruments regulating them, should be left out of the scope of guidelines at this time and that this may need to be addressed in the future (paragraph 17); and
- .9 the draft framework and the preliminary list of contents of guidelines, developed by the group (paragraph 18 and annex 3).

Establishment of a correspondence group

18.10 The Sub-Committee agreed to establish a correspondence group, coordinated by New Zealand⁶, with the following terms of reference:

Based on the report of the working group at DE 57/WP.7, in particular the draft framework of guidelines for onboard lifting appliances and winches, and taking into account the comments and decisions made at DE 57, the correspondence group is instructed to:

- .1 collect and analyse incident reports and incident data, including the incident reports for the ships **Blest Marine** and **Creciente**;

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- .2 consider the scope of application of guidelines, identifying ranges of equipment and types of ship;
- .3 identify which elements of existing regulations and instruments (e.g. ILO Convention No.152, SOLAS, STCW, ISM Code, LSA Code, HSSC Guidelines, MODU Code, ISO Standards, etc.) could be cross-referenced in guidelines, and any gaps to be covered;
- .4 develop a detailed work plan for the further course of action;
- .5 if time permits, develop a first draft of guidelines for onboard lifting appliances and winches, taking into consideration documents MSC 89/22/12, DE 56/22/4, DE 57/18/1, DE 57/18/2, DE 57/18/3 and DSC 16/5/5; and
- .6 submit a report to DE 58.

19 REVIEW OF GENERAL CARGO SHIP SAFETY

19.1 The Sub-Committee noted (DE 57/19) that MSC 90 had approved the action plan prepared by the FSA Experts Group for the consideration of the final recommendations in the FSA study on General Cargo Ship Safety in terms of risk control options (RCOs) by the sub-committees and instructed them to take action accordingly, based on annex 4 of document MSC 90/WP.7. Consequently, MSC 90 included in the 2012-2013 biennial agenda of the Sub-Committee and in the provisional agenda for this session, output 5.2.1.7 on "Review of general cargo ship safety", with a target completion year of 2013.

19.2 In this connection, the Sub-Committee noted that it had been instructed to further examine measures to strengthen the maintenance responsibilities for ship machinery in the context of implementing the Safety Management System (SMS) and ship survey requirements, as proposed by Argentina in document MSC 89/17/1. However, due to lack of time, the Sub-Committee decided to defer consideration of this agenda item to DE 58.

Extension of target completion year

19.3 In view of the above, the Sub-Committee invited the Committee to extend the target completion year for the output to 2014.

20 DEVELOPMENT OF AMENDMENTS TO SOLAS REGULATIONS II-1/29.3.2 AND 29.4.2, CLARIFYING THE REQUIREMENTS FOR STEERING GEAR TRIALS

20.1 The Sub-Committee noted that MSC 90, following consideration of document MSC 90/25/5 (Germany), proposing to amend SOLAS regulations II-1/29.3.2 and 29.4.2 to provide a possibility for carrying out calculations in lieu of steering gear trials at fully loaded condition, included in the 2012-2013 biennial agenda of the Sub-Committee and the provisional agenda for this session, an unplanned output on "Development of amendments to SOLAS regulations II-1/29.3.2 and 29.4.2 clarifying the requirements for steering gear trials", with a target completion year of 2013. In this connection, the Sub-Committee also noted that MSC 90 approved the Unified interpretation of SOLAS regulations II-1/29.3 and 29.4 concerning steering gear tests (MSC.1/Circ.1425).

20.2 The Sub-Committee considered document DE 57/20 (Germany), proposing to amend SOLAS regulations II-1/29.3 and 29.4 by adding new subparagraphs 3.5 and 4.4 to the regulations to provide an alternative way of carrying out steering gear tests when such tests as required in SOLAS regulations II-1/29.3.2 and 29.4.2 are impracticable for certain

ship types (e.g. large containerships, LNG carriers, etc.) which cannot be ballasted to their deepest seagoing draught during sea trials, owing to their design characteristics.

20.3 The delegation of Spain expressed concerns regarding some parts of the draft amendments, especially with respect to proposed paragraphs 3.5.1, 3.5.2 and 4.4.1, stating that the conditions proposed to test the main steering gear were more favourable than the real conditions corresponding to the deepest seagoing draught and running ahead at maximum ahead service speed; and that the calculated ahead speed that should result in a force and torque applied to the main steering gear corresponding to the deepest seagoing draught and running ahead at maximum ahead service speed would most probably be greater than the maximum ship speed.

20.4 During the discussion, concerns were also expressed with regard to the words "maximum ahead service speed" as used in the proposed draft amendments and the Sub-Committee consequently agreed to a proposal by the observer from IACS to replace them with the words "the speed of the ship corresponding to the number of maximum continuous revolutions of the main engine and maximum design pitch".

20.5 Following consideration, the Sub-Committee agreed to draft amendments to SOLAS regulation II-1/29, as set out in annex 15, for submission to MSC 92 for approval with a view to subsequent adoption. In this regard, the Sub-Committee also agreed that in the future guidelines addressing these issues in more detail could be developed.

Completion of the work on the output

20.6 In view of the above, the Sub-Committee invited the Committee to note that the work on the output had been completed.

21 BIENNIAL AGENDA AND PROVISIONAL AGENDA FOR DE 58

21.1 In considering matters related to the biennial agenda, provisional agenda and arrangements for its next session, the Sub-Committee recalled that:

- .1 MSC 91 requested all sub-committees to prepare their respective proposals for the High-level Action Plan for the forthcoming biennium, for consideration by MSC 92, for inclusion in the Committee's proposals to C 110 for the High-level Action Plan for 2014-2015; and
- .2 with regard to the proposed Sub-Committee restructuring, the Sub-Committee should still prepare its biennial and provisional agendas accordingly, bearing in mind that they are subject to change pending the decisions of MEPC 65, MSC 92 and C 110.

Proposals for the biennial agenda for 2014-2015 and provisional agenda for DE 58

21.2 Taking into account the progress made at the session and the instructions of MSC 91, the Sub-Committee prepared its proposed biennial agenda for the 2014-2015 biennium, including items on the post-biennial agenda of the Committee under the purview of the Sub-Committee (DE 57/WP.2, annex 1) and the provisional agenda for DE 58 (DE 57/WP.2, annex 2), as set out in annexes 16 and 17, respectively, for consideration by MSC 92.

Arrangements for the next session

21.3 The Sub-Committee agreed to establish at DE 58 working and drafting groups on subjects selected from the following:

- .1 development of a mandatory Code for ships operating in polar waters;
- .2 development of a new framework of requirements for life-saving appliances, and development of safety objectives and functional requirements of the Guidelines on alternative design and arrangements for SOLAS chapters II-1 and III;
- .3 development of requirements for onboard lifting appliances and winches;
- .4 classification of offshore industry vessels and consideration of the need for a non-mandatory Code for offshore construction support vessels;
- .5 amendments to SOLAS regulation II-1/11 and development of associated guidelines to ensure the adequacy of testing arrangements for watertight compartments;
- .6 development of amendments to the LSA Code for thermal performance of immersion suits; revision of testing requirements for lifejacket RTDs; and revision of the Recommendation on conditions for the approval of servicing stations for inflatable liferafts (resolution A.761(18)); and
- .7 development of guidelines for wing-in-ground craft,

whereby the Chairman, taking into account the submissions received on the respective subjects, would advise the Sub-Committee well in time before DE 58 on the final selection of such groups.

21.4 The Sub-Committee established correspondence groups on the following subjects, due to report to DE 58:

- .1 development of a mandatory Code for ships operating in polar waters;
- .2 development of requirements for onboard lifting appliances and winches; and
- .3 classification of offshore industry vessels and consideration of the need for a non-mandatory Code for offshore construction support vessels.

Status of planned outputs in the High-level Action Plan

21.5 The Sub-Committee, noting that the status of planned output will no longer be produced as part of a working paper during the session in order to avoid a duplication of work, invited MSC 92 to note the status of planned outputs, set out in annex 18.

Date of next session

21.6 The Sub-Committee noted the information provided by the Secretary-General that the date of the next meeting will be announced in due course, pending the decisions by MSC 92 and C 110 on the proposed Sub-Committee restructuring.⁷

22 ELECTION OF CHAIRMAN AND VICE-CHAIRMAN FOR 2014

22.1 In light of the decisions of C 109 and MSC 91 regarding the potential Sub-Committee restructuring, the Sub-Committee did not elect a Chairman and Vice-Chairman for 2014.

23 ANY OTHER BUSINESS

Revision of the International Code for the construction and equipment of ships carrying liquefied gases in bulk (IGC Code)

23.1 The Sub-Committee considered document DE 57/23/3 (Secretariat) on the outcome of BLG 16 regarding the revision of the IGC Code, listing the chapters and sections of the consolidated text of the draft revised Code (BLG 17/9, annex, as further modified by BLG 17/WP.6) referred to DE 57 for review. Having considered the relevant parts of the draft revised IGC Code, the Sub-Committee concurred with the draft text as set out in documents BLG 17/9 and BLG 17/WP.6.

Matters deferred to DE 58

23.2 Due to lack of time, the Sub-Committee decided to defer consideration of the following issues to DE 58:

- .1 draft International Code of safety for ships using gas or other low-flashpoint fuels (IGF Code) (DE 57/2/2);
- .2 casualty analysis (DE 57/23 and DE 57/2/3);
- .3 application of paragraphs 8.10.1.4, 8.10.1.5 and 8.10.1.6 of the 2000 HSC Code (DE 57/23/1);
- .4 safe working load and lowering test load for launching appliances (DE 57/2 and MSC 90/9/2);
- .5 scope of application and drafting of amendments to the LSA Code (DE 57/23/5);
- .6 amendments to the Guidelines for construction, installation, maintenance and inspection/survey of means of embarkation and disembarkation (MSC.1/Circ.1331) (DE 57/23/2);
- .7 correction to resolution MSC.81(70), as revised by resolution MSC.323(89) (DE 57/23/4);

⁷ Whenever a reference to DE 58 appears in this report, it should be construed as a reference to the first session of the new appropriate Sub-Committee, if approved by the Committees and the Council.

- .8 information on equipment for MOB situations (DE 57/INF.11 and DE 57/INF.12); and
- .9 outcome of FP 56:
 - .1 proposed amendments to the MODU Code and the Recommendation on helicopter landing areas on ro-ro passenger ships (MSC/Circ.895) (FP 56/20/3 and FP 56/23, annex 15); and
 - .2 protection of load-bearing structures on high-speed craft (FP 56/9/10 and FP 56/23, annex 9).

Expression of appreciation

23.3 Having noted that this session of the Sub-Committee was the last one to be attended by Mr. V. Semenov of the Secretariat, Secretary of the FP Sub-Committee, who will shortly be relinquishing his duties, the Sub-Committee expressed its appreciation for his valuable contribution to its work and wished him every success in his new endeavours.

24 DEVELOPMENT OF AMENDMENTS TO THE 2011 ESP CODE

General

24.1 The Sub-Committee recalled that DE 56, having discussed how to deal with updates to the IACS UR Z10 series regarding future amendments to the 2011 ESP Code, invited IACS to submit proposals on how to regularly amend the Code, based on the updated IACS UR Z10 series.

24.2 In this connection, the Sub-Committee noted that MSC 91 had agreed to include output 1.1.2.3 (Development of amendments to the 2011 ESP Code) in the provisional agenda of DE 57.

24.3 The Sub-Committee also noted that FSI 21 had agreed to a draft MSC circular on Application of SOLAS regulations XII/3, XII/7 and XII/11 (FSI 21/WP.5, annex 3), with a view to approval by MSC 92 and invited DE 57 to note the observations regarding the use of the term "periodical survey" in the ESP Code in relation to the application of SOLAS regulation XII/7 (FSI 21/WP.5, paragraphs 21 to 25) (see paragraph 24.10).

24.4 The Sub-Committee had the following documents for consideration:

- .1 DE 57/24 (IACS), containing a proposal that whenever the UR Z10 series is reviewed and updated, IACS would prepare a "track changes" version of the 2011 ESP Code as an information document, showing the proposed updates to the Code to provide alignment with the UR Z10 series, and submit the so updated text to the Sub-Committee for consideration. Any necessary explanation of the proposed changes would be provided either in an associated substantive document or by advising of the link to the IACS website where the relevant technical background and history file can be viewed; and
- .2 DE 57/INF.10 (IACS), providing in the annex a "track changes" version with draft amendments to the 2011 ESP Code as discussed in document DE 57/24.

Procedure to amend the 2011 ESP Code

24.5 Having considered how to deal with the regular updates to the 2011 ESP Code, the Sub-Committee supported the proposal by IACS (DE 57/24) and agreed to the following procedure, subject to the Committee's concurrence:

- .1 IACS, as appropriate, submits amendments to the 2011 ESP Code in an information document showing the proposed amendments as "track changes" to the Sub-Committee for consideration.
- .2 Explanations for the proposed changes are provided to the Sub-Committee by IACS, either in an associated substantive document, or by advising of the link to the IACS website where the relevant technical background and history file can be viewed.
- .3 The Sub-Committee reviews the proposed amendments and agrees or does not agree, as the case may be, to the proposals. Any proposals for modifications to the draft amendments proposed by IACS should be submitted in writing.
- .4 The Secretariat, taking into account the decisions of the Sub-Committee, prepares the agreed amendments in proper form as an annex to the report, for submission to the Committee for approval, with a view to subsequent adoption.

Proposed amendments to the 2011 ESP Code

24.6 The Sub-Committee considered document DE 57/INF.10 (IACS), providing in the annex a track-change version of the amendments to the 2011 ESP Code, as discussed in document DE 57/24. Following discussion, the Sub-Committee, having considered relevant proposals by the delegation of Spain, agreed as follows:

- .1 having noted comments on proposed new paragraph 1.3.3 of annex A of part A with regard to the use of the term "condition of classification", to retain the text as suggested by IACS;
- .2 to delete the proposed new third sentence in paragraph 2.1.2 of annexes A and B of part A, as it is redundant;
- .3 to delete the proposed new text in paragraph 2.2.1 of annexes A and B of part A and annexes A and B of part B, since it was not in line with the requirements of SOLAS regulation I/10; and
- .4 to delete the proposed new first sentence in paragraph 3.1 of annexes A and B of part A and annexes A and B of part B, since the proposal was already covered by SOLAS regulation I/10.

24.7 The observer from the EC, referring to paragraph 7.4 of document DE 57/24, pointed out that it was recognized that, in certain specific circumstances, the prompt and thorough repairs requirement could lead to unreasonable situations; however, there was a danger that a relaxation of the requirement could end up in a relaxation of the survey regime. Some cases could be handled with suitable temporary repairs and suitable short term recommendations/conditions of class, but the IACS proposal did not require this to be for a short term. The example provided in the background information ("localized isolated

and very minor hole in a cross-deck strip") was not given in the proposed text, but could be usefully included to provide guidance for surveyors on the limited use of this waiver of the requirement, as well as other circumstances like the impossibility to carry out permanent repairs, careful evaluation of the surrounding structure, etc.

24.8 Having considered the view of the observer, the Sub-Committee agreed to include relevant proposed new text in square brackets in paragraph 1.3.3 of annexes A and B of part A and annexes A and B of part B, for consideration by MSC 92.

24.9 Consequently, the Sub-Committee agreed to draft amendments to the 2011 ESP Code, as set out in annex 19, for submission to MSC 92 for approval, with a view to subsequent adoption.

Outcome of FSI 21 – Interpretation of the term "periodical survey"

24.10 The Sub-Committee noted that FSI 21's Working Group on Review of the HSSC Guidelines had finalized a draft MSC circular on Application of SOLAS regulations XII/3, XII/7 and XII/11, for approval by MSC 92, stating that the term "periodical survey", in the context of the aforementioned SOLAS regulations, should be interpreted as either being the intermediate survey or the renewal survey. FSI 21 had invited DE 57 to note this interpretation regarding the use of the term "periodical survey" in the 2011 ESP Code in relation to the application of SOLAS regulation XII/7.

25 ACTION REQUESTED OF THE COMMITTEES

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

- .1 approve the draft MSC circular on Unified interpretation of SOLAS chapters II-1 and XII, of the Technical provisions for means of access for inspections (resolution MSC.158(78)) and of the Performance standards for water level detectors on bulk carriers (resolution MSC.145(77)) (paragraph 3.5 and annex 1);
- .2 consider and decide on interpretation 1 to paragraph 3.4 of PSPC 4, Table 1, 3 (Secondary surface preparation) and approve the draft MSC circular on Unified interpretations of the Performance standard for protective coatings for dedicated seawater ballast tanks in all types of ships and double-side skin spaces of bulk carriers (resolution MSC.215(82)) (paragraph 3.8 and annex 2);
- .3 approve the draft MSC circular on Unified Interpretations on fall preventer devices (MSC.1/Circ.1392 and MSC.1/Circ.1327) (paragraph 3.18 and annex 4);
- .4 approve the draft MSC circular on Unified Interpretations of SOLAS regulation II-1/26.3 (paragraph 3.20 and annex 5);
- .5 approve the draft MSC circular on Unified Interpretations of paragraph 1.1.4 of the LSA Code (paragraph 3.24 and annex 6);
- .6 consider paragraph 6.2.3 of the draft MSC resolution on Requirements for periodic servicing and maintenance of lifeboats and rescue boats and decide as appropriate (paragraph 6.5.4 and annex 7);

- .7 approve the draft MSC resolution on Requirements for periodic servicing and maintenance of lifeboats and rescue boats, with a view to adoption at MSC 93 in conjunction with the adoption of the associated draft SOLAS amendments (paragraph 6.7 and annex 7);
- .8 approve, in principle, the draft MSC circular on Guidelines on safety during abandon ship drills using lifeboats, for final approval at MSC 93 in conjunction with the adoption of the associated draft MSC resolution (paragraph 6.8 and annex 8);
- .9 approve draft amendments to SOLAS chapter III, with a view to adoption at MSC 93 (paragraph 6.9 and annex 9);
- .10 note that the Sub-Committee referred parts of the draft Goal-based guidelines on the framework of requirements for ships' life-saving appliances (DE 57/WP.5, annex 1) to the COMSAR, FP and STW Sub-Committees for consideration, as appropriate (paragraph 7.13);
- .11 note the comments of the Sub-Committee regarding acceptable arrangements for the positioning and operation of lights fitted to lifejackets (paragraphs 8.6 to 8.9);
- .12 note that, due to lack of time, the Sub-Committee decided to defer consideration of agenda items 9 (Development of amendments to the LSA Code for thermal performance of immersion suits) and 10 (Development of amendments to the LSA Code for free-fall lifeboats with float-free capabilities) to DE 58 (paragraphs 9.3 and 10.2, respectively);
- .13 note the progress made in the development of the mandatory Polar Code (section 11);
- .14 consider the unsatisfactory status of nautical charting in polar waters and the impact this has on navigation (DE 57/11/24) and take action as deemed appropriate (paragraph 11.36);
- .15 approve the request for an intersessional meeting of the Polar Code Working Group in the autumn of 2013, for submission to C 110 for endorsement (paragraph 11.46);
- .16 approve a new output on "Guidelines addressing the carriage of more than 12 industrial personnel on board vessels engaged on international voyages", taking into account the associated justification, with a view to including the new output in the 2014-2015 biennial agenda of the Sub-Committee and in the provisional agenda for DE 58 (paragraph 12.10 and annex 10);
- .17 approve draft amendments to the LSA Code concerning lifejacket RTDs, with a view to adoption at MSC 93 (paragraph 13.9 and annex 11);
- .18 approve draft amendments to the Revised Recommendation on testing of life-saving appliances (resolution MSC.81(70)), with a view to adoption at MSC 93 (paragraphs 13.11, 13.13.1 and 13.15 and annex 12);

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- .19 approve, in principle, the draft MSC circular on Guidelines for validating the construction of a completed adult reference test device (RTD), for final approval at MSC 93 in conjunction with the adoption of the associated amendments to the LSA Code and the Revised Recommendation on testing of life-saving appliances (paragraph 13.13.3 and annex 13);
 - .20 note that, due to lack of time, the Sub-Committee decided to defer consideration of agenda items 14 (Development of guidelines for wing-in-ground craft) and 15 (Revision of the Recommendation on conditions for the approval of servicing stations for inflatable liferafts (resolution A.761(18)) to DE 58 (paragraphs 14.2 and 15.2, respectively);
 - .21 note that the Sub-Committee requested the Secretariat to liaise with ILO to inform them of the ongoing work with regard to the development of requirements for lifting appliances and winches and invite their participation (paragraph 18.5);
 - .22 note that, due to lack of time, the Sub-Committee decided to defer consideration of agenda item 19 (Review of general cargo ship safety) to DE 58 (paragraph 19.2);
 - .23 approve the draft amendments to SOLAS regulation II-1/29 concerning requirements for steering gear trials, with a view to adoption at MSC 93 (paragraph 20.5 and annex 15);
 - .24 approve the biennial agenda of the Sub-Committee for the 2014-2015 biennium and note the items on the Committee's post-biennial agenda that fall under the purview of the Sub-Committee (paragraph 21.2 and annex 16);
 - .25 approve the draft provisional agenda for DE 58 (paragraph 21.2 and annex 17);
 - .26 note the report on the status of the Sub-Committee's planned outputs for the 2012-2013 biennium and take action as appropriate (paragraph 21.5 and annex 18);
 - .27 note that the Sub-Committee considered the parts of the draft revised IGC Code referred to it by the BLG Sub-Committee and concurred with the draft text as set out in documents BLG 17/9 and BLG 17/WP.6 (paragraph 23.1);
 - .28 concur with the procedure for regular updates to the 2011 ESP Code agreed by the Sub-Committee (paragraph 24.5);
 - .29 consider and decide on the proposed new text in square brackets in paragraph 1.3.3 of annexes A and B of parts A and B of the 2011 ESP Code and approve the draft amendments to the Code, with a view to subsequent adoption (paragraphs 24.8 and 24.9 and annex 19); and
 - .30 approve the report in general.

- 25.2 The Marine Environment Protection Committee, at its sixty-fifth session, is invited to:
- .1 approve the draft MEPC circular on Amendments to the Unified Interpretation to regulation 12.2 of MARPOL Annex I (MEPC.1/Circ.753) (paragraph 3.15 and annex 3);
 - .2 note that, while the Sub-Committee completed its work on the Standard Specification for Shipboard Incinerators (resolution MEPC.76(40), as amended by resolution MEPC.93(45)), some delegations were of the view that this matter should be further considered and questioned the application of relevant sections to passenger and cruise ships only (paragraph 4.4);
 - .3 note that the Sub-Committee, having agreed to the need to update the definition section as well as references to the MARPOL and SOLAS Conventions and IEC Standards in the Standard Specification for Shipboard Incinerators, requested the Secretariat to update the aforementioned definitions and references and submit a relevant document to MEPC 66 (paragraph 4.5);
 - .4 consider the following issues regarding the draft Polar Code and advise the Sub-Committee accordingly:
 - .1 requirements addressing the discharge of grey water in polar waters (DE 57/11/9) (paragraph 11.15);
 - .2 requirements banning the use of heavy fuel oil (HFO) on ships operating in Arctic waters (DE 57/11/9 and DE 57/11/11) (paragraphs 11.15 and 11.18);
 - .3 requirements for the mitigation of black carbon emissions from shipping in polar waters (DE 57/11/20) (paragraph 11.21); and
 - .4 application of EEDI regulations to ships with a high independent icebreaking capability (DE 57/11/8 and DE 57/11/16) (paragraph 11.27);
 - .5 consider the report of the Polar Code Working Group (DE 57/WP.6), and in particular draft chapter 15 of the Polar Code (DE 57/WP.6, annex), as an urgent matter, with a view to agreement in principle (paragraph 11.40); and
 - .6 approve the request for an intersessional meeting of the Polar Code Working Group in the autumn of 2013, for submission to C 110 for endorsement (paragraph 11.46).
- 25.3 The Marine Environment Protection Committee, at its sixty-sixth session, is invited to:
- .1 consider the proposals for further work on the reduction of underwater noise from commercial shipping, as listed in paragraph 9 of document DE 57/17, and decide as appropriate (paragraph 17.8); and

- .2 consider and decide on the square brackets around paragraph 3 of the Preamble and approve the draft MEPC circular on Guidelines for the reduction of underwater noise from commercial shipping (paragraph 17.11 and annex 14).

(The annexes to this report will be issued as document DE 57/25/Add.1)
