



Technical Information

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16 March 2018

To : Whom It May Concern

Subject : Summary Report on IMO Meeting of Ship Systems and Equipment Sub-Committee 5th Session (SSE 5)

Summary

This Technical Information summarizes the result of 5th Session of the IMO Ship Systems and Equipment Sub-Committee (SSE 5) that was held from the 12 to 16 March 2018, at the IMO headquarters in London.

Information

1. The information provided in this Technical Information are the ones which have high relevance with the work of BKI or considered as an essential information for interested parties.
2. The following agenda are among those discussed during the meeting :

Agenda Number	Topic
3	Safety objectives and functional requirements of the guidelines on alternative design and arrangements for SOLAS chapters II-1 and III
4	Develop new requirements for ventilation of survival crafts
5	Uniform implementation of paragraph 6.1.1.3 of the LSA Code
7	Review SOLAS chapter II-2 and associated codes to minimize the incidence and consequences of fires on ro-ro spaces and special category spaces of new and existing ro-ro passenger ships
8	Amendments to the FSS Code for CO2 pipelines in under-deck passageways
9	Amendments to MSC.1/Circ.1315
10	Requirements for onboard lifting appliances and anchor handling winches
11	Revised SOLAS regulations II-1/13 and II-1/13-1 and other related regulations for new ships
12	Unified interpretation of provisions of IMO safety, security, and environment-related conventions
16	Any other business

3. The Agenda above are several technical issues discussed during the meeting. A brief coverage among the issues are expressed in the attached document.

More info

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- S I G N E D -

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BRIEF INFORMATION ON IMO MEETING OF SHIP SYSTEMS AND EQUIPMENT SUB-COMMITTEE 5TH SESSION (SSE 5)

A. SAFETY OBJECTIVES AND FUNCTIONAL REQUIREMENTS OF THE GUIDELINES ON ALTERNATIVE DESIGN AND ARRANGEMENTS FOR SOLAS CHAPTERS II-1 AND III (AGENDA ITEM 3)

The agenda item discusses the input regarding quantification methods for formulating functional requirements (FR) and expected performance (EP) for SOLAS Ch.III. It was also conveyed that the criteria for formulating those FR and EP should be utilized to ensure the application of regulation regarding alternative design. Therefore, it is emphasized that the development of FR and EP must be based on the current SOLAS Ch.III and LSA Code. However, the development of FR and EP will ultimately help the uniformity for evaluation of alternative design, and therefore Sub Committee can continue its development.

Taking into account the comments made, the majority of delegates agreed to further discussion of the quantification method for SOLAS Ch.III and continue to use the current SOLAS Ch.III and LSA code as the basis.

Working Group on Life-saving appliances (WG LSA) was established with the following tasks:

1. develop goals, functional requirements and expected performance to ensure the consistent application of SOLAS regulations III/4.3 (novel life-saving appliances or arrangements), III/38 (alternative design and arrangements) and the Guidelines on alternative design and arrangements for SOLAS chapters II-1 and III (MSC.1/Circ.1212),
2. consider whether it is necessary to establish a correspondence group and, if so, prepare the terms of reference for consideration by the Sub-Committee;

After further discussion, CG noted differences in the presentation of FR and EP from the two reference documents. Therefore, WG agreed that it is necessary to analyze the gap of the two documents. And invited the Sub Committee to establish CG for further progression of this issue.

Considering the ToR prepared by the WG, the Sub-Committee agreed to establish CG.

B. DEVELOP NEW REQUIREMENTS FOR VENTILATION OF SURVIVAL CRAFTS (AGENDA ITEM 4)

This agenda discusses the results of the Correspondence Group (CG) LSA regarding the design of new requirements for survival craft (in this case fully enclosed lifeboat is a priority). In its report, taking into account the discussions in the CG LSA, the sub-committee is invited to:

1. Determine whether the air quality or ventilation rate is agreed as a requirement related to microclimate.
2. Determine how long the above conditions are to be maintained.

With regard to microclimate, the majority agree with ventilation rate rather than limiting O₂ or CO₂ levels, it also considers the process of verifying these requirements. And regarding how long this condition are to be maintained, majority agree with 24 hours, provided that it does not operate in the polar regions.

Therefore, WG LSA was established with the following tasks:

1. finalize draft amendments to the LSA,
2. if time permits, consider amendments to the Revised recommendation on testing of life saving appliances (resolution MSC.81(70)) and necessary consequential amendments to other IMO instruments,
3. consider whether it is necessary to establish a correspondence group to develop new requirements for ventilation of survival crafts other than totally enclosed lifeboat.

After further discussion in, WG agree with the minimum ventilation rate of 5 m³/h per person, as stated in final draft amendment to LSA Code.

Sub-Committee agreed to the draft amendments to the LSA Code regarding ventilation on totally enclosed lifeboats, and will be forwarded to MSC 100 for approval.

C. UNIFORM IMPLEMENTATION OF PARAGRAPH 6.1.1.3 OF THE LSA CODE (AGENDA ITEM 5)

This agenda proposed changes to the LSA Code regarding the means to be prepared to ensure the safety of the crew in the embarkation process of the rescue boat with manual operation. Some delegates argued that the amendment should be included in SOLAS Ch.III rather than LSA Code.

In relation to the application of the draft amendment, there is a possibility for passenger ships to use manual operation on the process of launching the rescue boat. However, the majority of delegates did not agree, given that the manual operation has the potential to slow down the launch process.

Regarding the application date, it was submitted that there should be no application date of this amendment plan, as this amendment is allowing operations that were previously allowed. In this regard, WG LSA was assigned to finalize the LSA Code amendment draft paragraph 6.1.1.3.

After further discussion at WG, Sub-Committee agreed to the draft amendment of LSA Code, and will be forwarded to MSC 100 for approval.

D. REVIEW SOLAS CHAPTER II-2 AND ASSOCIATED CODES TO MINIMIZE THE INCIDENCE AND CONSEQUENCES OF FIRES ON RO-RO SPACES AND SPECIAL CATEGORY SPACES OF NEW AND EXISTING RO-RO PASSENGER SHIPS (AGENDA ITEM 7)

This agenda item discusses the following issues:

1. Fire safety measures for ro-ro spaces and special category spaces of new and existing ro-ro passenger ships
2. Measures to address enhanced fire risks caused by the transport of vehicles with electrical drives
Proposal on electrical connections to vehicle and cargo units in ro-ro and special category spaces
3. Controls for deluge systems in ro-ro spaces and special category spaces (MSC.1/Circ. 1430)

4. Fire safety proposals for the carriage of electric vehicles powered by lithium-ion batteries
5. Proposals for improving the fire safety of ro-ro spaces and
6. special category spaces of ro-ro passenger ships
7. Revised guidelines for the design and approval of fixed water-based fire-fighting systems for ro-ro spaces and special category spaces.

With regards to this agenda item, WG on Fire Safety were tasked the following:

1. provisionally identify which fire safety provisions of SOLAS and related instruments need to be revised,
2. based on the identification of fire safety provisions in sub-paragraph .1 above, consider the scope and structure of the draft interim guidelines,
3. based on the identification of fire safety provisions in sub-paragraph .1 above, proceed with the development of draft amendments to SOLAS and related instruments,
4. with regard to training issues, consider what actions, if any, need to be taken by HTW 5,
5. prepare draft amendments to the Revised guidelines for the design and approval of fixed water-based fire-fighting systems for ro-ro spaces and special category spaces (MSC.1/Circ.1430),
6. consider whether it is necessary to establish a correspondence group.

After further discussion at WG:

1. The WG has identified fire safety provision of SOLAS and related instruments need to be revised that are grouped into the following categories:
 - Prevention / ignition
 - Detection and decision
 - Extinguishment
 - Containment
 - Integrity of LSA and evacuation
2. The WG has prepared the provisional structure of the draft of the interim guidelines.
3. The WG has prepared draft revised guidelines for the design and approval of fixed water-based fire-fighting systems for ro-ro and special category spaces,
4. The WG invited the Sub-Committee to establish CG to develop interim guidelines and draft amendments of SOLAS and other relevant instruments.

Considering the WG report, the Sub-Committee approved the draft amendments to the Revised guidelines for the design and approval of fixed water-based fire-fighting systems for spaces and special category spaces (MSC.1/Circ.1430) as well as a related revision to draft UI Chapter 15 FSS Code (MSC.1 / Circ.1582), and agreed to forward this to MSC 100 for approval.

E. AMENDMENTS TO THE FSS CODE FOR CO2 PIPELINES IN UNDER-DECK PASSAGEWAYS (AGENDA ITEM 8)

This agenda item discusses the proposal regarding additional requirements on fixed fire extinguishing systems on under-deck passageways. This additional requirement is mainly about mitigating the risk of leakage in the CO2 piping system on under-deck passageways. The proposed changes in particular is highlighting the type of connection required, which is proposed to be no longer allowed to use flange

connections. On the other hand, the other connection type, welding technology is also mature enough to be used on board.

Some delegates argue that there are still several other types of connections other than flange and welding, therefore, there are other options that should also be considered. In addition, it is also conveyed that the incident is not solely due to the type of connection. And if the objective is to protect the crew of the ship, then a periodic test (leakage test) can still be done to ensure that there is no leakage. Taking note of some of the documents submitted, there is not enough data to justify this proposal as an urgent need.

Therefore, Sub-Committee agreed that this proposal need not be discussed further and there is no discussion agenda of this item on WG.

F. AMENDMENTS TO MSC.1/CIRC.1315 (AGENDA ITEM 9)

This agenda item deals with the materials used in fixed-air chemical powder fire-extinguishing systems in gas carriers. The definition of dry chemical powder is only made from sodium or potassium bicarbonate. Furthermore, it was also conveyed that sodium-based dry chemical powders should no longer be used, by reason of the reduce of safety level of fire extinguisher performance due to clogging. Another opinion states that the guidelines should not specify the medium used, so that it can accommodate the development of technology related to the medium of the fire extinguisher.

Taking into account the comments made, the Sub-Committee decided that sodium bicarbonate should not be used anymore.

For that purpose, WG Fire Safety is assigned to prepare draft amendment Guidelines for the approval of fixed dry chemical powder fire-extinguishing systems for the protection of ships carrying liquefied gases in bulk.

After discussions at WG, it was agreed that it is currently premature to prepare an amendment draft due to the lack of experts within this WG, and it is proposed to continue this discussion on CG.

Considering the WG report, the Sub Committee agreed to establish a CG related Fire Protection.

G. REQUIREMENTS FOR ONBOARD LIFTING APPLIANCES AND WINCHES (AGENDA ITEM 10)

This agenda item discusses the report of Correspondence Group related Onboard Lifting Appliances and anchor handling Winches (OLAW). The Sub-Committee was invited to:

Consider whether the "list of inclusions with some exclusions" or the "list of exclusions" should be used

"List of exclusion" is preferred because there are some other equipment under the other regulation, as in LSA and others. While "List of inclusion with some exclusion" is considered because it will become clearer on what equipment are included and excluded. Another proposal stated that the "inclusion list" is enough, as it provides a clear instruction, regarding what equipment should be checked. Considering all comments in the plenary, and that the consensus cannot be reached, the Sub-Committee decided to forward this issue to MSC 100 for consideration.

Consider whether a reference to the MODU Code in the draft SOLAS regulations is appropriate from a legal point of view

Since the discussion on the list of exclusions does not reach consensus, this issue cannot be discussed.

Threshold limit SWL for OLAW with option 1000 kg or 500 kg.

The majority of opinions support the limit of 1000 kg, because the 500 kg option potentially add the burden of certification and inspection. In addition, it was also conveyed that there should be no limit, because it concerns safety issues, where there is no difference in the impact of equipment failure with 1000 kg or 500 kg SWL. Noting the comments made at plenary sessions, the Sub-Committee decided to look at the MSC 100 decision on "list of inclusion" first, and then discuss the SWL related consequential decisions on SSE 6.

Qualifications and training of shore personnel involved in OLAW operations

The Sub-Committee approves in principle the SSE Documents 5/10/2 and 5/10/4 and asked WG to discuss it further.

Related to the handling of loose gear brought from shore and development of draft SOLAS regulation

Sub-Committee agree to continue the discussion in WG.

The development of the draft guidelines

Sub-Committee agree to continue the discussion in WG, however, due to the time constraint, it was agreed to continue this task at CG.

Regarding the issue on which part of SOLAS that need to be amended, some opinions were raised in plenary, among others:

- If Ch.II considered to be amended, it will affect the survey items according to Ch.I, which will also impact ship detention due to OLAW deficiency,
- Some delegates propose to create New Chapter of SOLAS,
- Some delegates stated that Ch II-1 is considered more appropriate as it relates to construction.

Taking into account the comments made in plenary, the Sub-Committee asked WG to consider this in decide on which part of SOLAS is to be amended. After further discussion, the agreement has not been reached, and the WG agreed that it was not in the position to resolve this issue at this stage.

Considering the report of the WG, the Sub-Committee notes the progress achieved by the WG, and approved in general, and a CG is established to continue the discussion.

H. REVISED SOLAS REGULATIONS II-1/13 AND II-1/13-1 AND OTHER RELATED REGULATIONS FOR NEW SHIPS (AGENDA ITEM 11)

Previously, the proposals regarding the protection related to the hazards by watertight doors were submitted in SSE 3, but it was decided not to proceed because the available information was considered inadequate. Then CG was formed to identify industry standards related to Anti Crushing Protection that can be applied. In SSE 4, after considering the CG report, it was decided that there was enough information to continue this discussion on SSE 5.

Furthermore, the proposal submitted to SSE 5 are to provide a visible warning sign on both sides of the door indicating a safe time to pass through the door. Some opinions expressed that passing through a water-tight door that is moving to close is still unsafe, so this proposal does not help much.

The majority of delegates argue that this output cannot be continued. Consider the comments made at plenary, and if no other achievements are made, it will be decided on SSE 6 on the settlement of this agenda output, either with or without results.

I. UNIFIED INTERPRETATION OF PROVISIONS OF IMO SAFETY, SECURITY, AND ENVIRONMENT RELATED CONVENTIONS (AGENDA ITEM 12)

The following unified interpretations have been approved by the Sub-Committee, with some notes:

- SSE 5/12/8 Application of the design temperatures for piping, fittings and related components (paragraph 11.3.6 of the IGC Code). This UI proposal relates to IGC Code 11.3.6 which requires that all pipelines, fittings and related components within the cargo space should be able to withstand heat to 925°C. In this regard, the IACS is of the view that a water-spray system located above a fuel tank located at the rear or front of the hold space should also be subject to the same requirements, as protection is necessary in case of fire in the area.

The Sub-Committee agreed with this understanding and asked IACS to submit the draft UI in the next session.

- SSE 5/12/1 Unified interpretation on Lifeboat Equipment (paragraph 4.4.8.1 of the LSA Code). This UI is regarding the LSA Code paragraphs 4.4.8.1 and MSC/Circ980/Add.1 which specifies that a lifeboat with two independent propulsion does not need to carry the compliance in accordance with LSA Code paragraph 4.4.8.1, and however, it must be ensured that the lifeboat shall have enough maneuverability if one of the propulsion fails.

The sub-committee agreed with the draft UI, with removing texts related to maneuverability, taking into account the need for criteria of sufficient maneuverability. The Sub Committee decides to forward this UI to MSC 100 with a view for approval.

J. DEVELOPMENT OF GUIDELINES FOR COLD IRONING OF SHIPS AND OF AMENDMENTS TO SOLAS CHAPTERS II-1 AND II-2 (AGENDA ITEM 13)

MSC 98 has approved a proposal to develop mandatory and non-mandatory safety provisions for cold ironing of vessels and guidance on safe operation of onshore power supply (OPS) service in port.

In this session, the draft "guidelines on safe operation of onshore power supply (OPS) service in port for ships engaged on international voyages" was submitted. Some of the comments made underline the duplication of standard used as well as the edition of the standard. Another comment, Section 5 related personnel is considered too prescriptive, so it is proposed also to request a review of the HTW Sub Committee on this matter.

Taking into account the comments made, the majority of delegates is of the opinion that the contents of this draft could not be discussed in this session and require further discussion. And the Sub-Committee agreed that the DG may be assigned to draft the term of reference for CG to be proposed, to continue the discussion of this agenda.

After discussions at DG, the Sub-Committee agreed to establish CG to continue the development of the draft guidelines as well as other necessary amendments to SOLAS Ch.II-1 and II-2 if any.

K. ANY OTHER BUSSINESS (AGENDA ITEM 16)

The other issue at SSE 5 that has been approved by the Sub-Committee:

Amendments to the Revised recommendation on testing of life-saving appliances (resolution MSC.81 (70)), as amended

There is a proposal for amendments to MSC.81 (70) regarding the ISO standard reference used. It was conveyed that MSC.81(70) uses the ISO 12402-7 standard related to flotation devices. In this regard, it is proposed to make it clear that the standard used is ISO 12402-7 2006 edition. The sub-committee agreed to request the secretariat to prepare a draft corrigendum from MSC.81(70) to clarify the ISO standard version used.