



Technical Information

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To : Whom It May Concern

Subject : Summary Report on IMO Meeting of Sub-Committee on Ship Systems and Equipment (SSE) 7th sessions

Summary

This Technical Information summarizes the result of 7th Session of the IMO Meeting of Sub-Committee on Ship Systems and Equipment (SSE) held from 2 to 6 March 2020, at 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 | New requirements for ventilation of survival craft |
| 5 | Revision of SOLAS chapter III and the LSA Code |
| 6 | Review of 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 |
| 7 | Amendments to Guidelines for the approval of fixed dry chemical powder fire-extinguishing systems for the protection of ship carrying liquefied gases in bulk |
| 9 | Requirements for onboard lifting appliances and anchor handling winches |
| 12 | Amendments to paragraph 4.4.7.6.17 of the LSA Code concerning single fall and hook systems with on-load release capability |
| 13 | Revision of the Standardized Life-Saving Appliance Evaluation and Test Report Forms |
| 15 | Amendments to SOLAS chapter III, LSA Code and resolution MSC.81(70) to remove the applicability of the requirements to launch free-fall lifeboats with the ship making headway at speeds up to 5 knots in calm water |
| 16 | Unified interpretation of provisions of IMO safety, security, and environment-related conventions |

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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BRIEF INFORMATION ON IMO MEETING OF SUB COMMITTEE ON SHIP SYSTEMS AND EQUIPMENT

7TH SESSION (SSE 7)

A. NEW REQUIREMENTS FOR VENTILATION OF SURVIVAL CRAFT (AGENDA 3)

At the previous SSE meeting, the Sub Committee has agreed that the totally enclosed lifeboat should have concentration CO₂ not more than 5000 ppm and ventilation rate 5m³/h/person. In this regard, the requirements for partially enclosed lifeboat and liferaft still need to be further discussed and determined whether it would be using the same requirement with totally enclosed lifeboats or not.

With refer to the report of the Correspondence Group established in SSE 6, the Sub Committee discussed draft amendment to The International Life-Saving Appliances (LSA) Code and the Revised recommendation regarding the ventilation performance on totally enclosed, partially enclosed lifeboats and liferaft.

Ventilation requirements in the LSA Code for totally enclosed lifeboats

There are two options proposed for consideration for the ventilation performance test for totally enclosed lifeboat i.e measured under mooring condition or control conditions.

After the depth discussion, for additional for test totally enclosed lifeboats, the sub Committee agreed that ventilation performance test is conducted under mooring conditions with only the persons necessary on board to perform the test as prescribed in the guidelines.

Ventilation requirements in the LSA Code for partially enclosed lifeboats

In considering the draft amendments to paragraph 4.5.2.6 of the LSA Code regarding ventilation requirements in partially enclosed lifeboats, the Sub-Committee agreed to keep the provision on "prevention of exposure to a long term 5,000 ppm requirement" for finalization.

Ventilation requirements in the LSA Code for liferafts

There are three proposals options for amendments of the general requirements for ventilations of liferaft as follows:

- Option 1 provides requirement for prevent exposure to a long-term CO₂ concentration of not more than 5000 ppm with entrance closed.
- Option 2 provides requirement for ventilation opening with the cross sections of 4 % floor area of the liferaft.
- Option 3 provides requirement for CO₂ concentration of not more than 5000 ppm for entrances closed and ventilation rate of 5m³/h/person for 24 hours.

Following a lengthy discussion, the Sub-Committee agreed to take into account options "2" and "3" as a base text, i.e. "ventilation opening with the cross section of 4% floor area of the liferaft" and "long-term CO₂ concentration of not more than 5,000 ppm", and bring to the Working group to get further discussion.

Based on the discussion in the plenary and in working group, it was agreed that:

1. Ventilation performance test for totally enclosed lifeboat should be provided with means to achieve a ventilation rate of at least 5 m³/h per person for the number of persons which the lifeboat is permitted to accommodate and for a period of not less than 24 hours.
2. Ventilation performance test for partially enclosed lifeboat should have a long-term CO₂ concentration of not more than 5000 ppm or the number of persons the lifeboat is permitted to accommodate, even with the entrances closed.
3. Ventilation performance test for liferaft should have a long-term CO₂ concentration of not more than 5000 ppm and provision that a liferaft provided with the means to achieve a ventilation rate of at least 5m³/hr/person for 24 hours to meet the long-term concentration could be further discussed (Option 3).

B. REVISION OF SOLAS CHAPTER III AND THE LSA CODE (AGENDA 5)

The Sub Committee recalled in the previous sessions, IMO has agreed to work to revise SOLAS chapter III and the LSA Code to remove gaps, inconsistencies and ambiguities, based on the functional requirements and expected performance of SOLAS chapter III and supported a work programme item on the revision of SOLAS chapter III and the LSA Code. However, the work on this output should not begin until the work on functional requirements and expected performance standards for SOLAS chapter III had been completed, and the draft Interim guidelines for the development and application of IMO goal-based standards safety level approach had been finalized.

Therefore, in this session, the work for revision of SOLAS Chapter III and the LSA Code should be deferred by the Sub Committee until the safety objectives, functional requirements and expected performance criteria have been developed.

Following to the above discussion, through Working Group established by the Sub Committee, SSE 7 developed an action plan on the revision of SOLAS Chapter III and LSA Code and prepared the draft term of reference for correspondence group, if established.

C. REVIEW OF 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 6)

The Sub-Committee established and instructed the Working Group on Fire Protection (FP) to:

1. develop draft amendments to relevant IMO instruments regarding fire safety on ro-ro passenger ships, taking into account the Interim guidelines for minimizing the incidence and consequences of fires in ro-ro spaces and special category spaces of new and existing ro-ro passenger ships (MSC.1/Circ.1615) and documents submitted to this session;
2. to prepare the 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/Rev.1) regarding the clarification of the term "free height" and minimum water discharge density; and
3. consider whether the draft amendments to be developed would require consequential amendments to the Interim guidelines and if so, prepare such draft amendments.

However, given the complexity of the task with several items (risk control options) dependent on the outcome of other measures, the Working Group focused on selecting items that were deemed appropriate for new ro-ro passenger ships constructed on or after 1 January 2024. The following items were in this category:

1. restricting or banning opening;
2. combined heat and smoke detection;
3. decision related RCOs;
4. fire monitors on weather decks;
5. safety distance between LSAs and openings;
6. CCTV in ro-ro spaces;
7. fire detection system for weather decks; and
8. containment.

In order to continue the work on the development of draft amendments to relevant IMO instruments regarding fire safety on ro-ro passenger ships, taking into account the aforementioned items, the Sub-Committee established and instructed Corresponding Group provide report to SSE 8.

Further, the Sub-Committee agreed to the draft amendments to 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/Rev.1), and the associated draft MSC circular, with a view to approval by MSC 103.

D. AMENDMENTS TO GUIDELINES FOR THE APPROVAL OF FIXED DRY CHEMICAL POWDER FIRE-EXTINGUISHING SYSTEMS FOR THE PROTECTION OF SHIP CARRYING LIQUEFIED GASES IN BULK (MSC.1/CIRC.1315) (AGENDA 7)

Taking into account the report of Correspondence group established in SSE 6, the Sub-Committee considered the following issues in relation to:

- The development or the need for jet fire test
- Draft amendments for the approval of fire-extinguishing systems, including the requirements for type approval certificates;
- Identification of potential issues regarding the maintenance and inspection of dry chemical fire-extinguishing systems in the Revised Guidelines for the maintenance and inspection of fire protection systems and appliances (MSC.1/Circ.1432)
- Application of MSC Circular only for new installations.

After the depth discussion, the Sub-Committee noted the progress made on the draft Revised guidelines, as well as the Group's discussions on pool and jet fire tests and the implementation provision; and agreed that:

1. the requirement for thermogravimetric analysis should be deleted.
2. the development of new test procedure is needed more technical considerations.
3. to expand scope of the output in order to address the potential issues regarding the maintenance and inspection of dry chemical fire-extinguishing systems in the revised guidelines (MSC.1/Circ.1432).

Evaluation of standard ISO 7202 testing and criteria

Following the discussion, the Sub-Committee, noting the view that a performance based approach would be preferred to a prescriptive approach, did not agree with the proposal on the removal of paragraph 3.5 of the draft Revised guidelines regarding the prohibition of sodium bicarbonate as a main component in dry powder agents, as well as the development of an appropriate sample conditioning for testing in order to replicate prolonged storage in the marine environment.

Establishment of the Working Group

The Sub-Committee agreed to re-establish the Working Group, with task to:

1. finalize the draft amendments to the Guidelines for the approval of fixed dry chemical powder fire-extinguishing systems for the protection of ships carrying liquefied gases in bulk (MSC.1/Circ.1315), with the associated draft MSC circular.
2. consider whether a correspondence group should be re-established to progress the discussion, and if so, prepare the draft terms of reference for consideration by the Sub-Committee.

After an in-depth discussion, the group noted with the following matters

1. the need to develop additional realistic test procedures, such as a pool fire test using flammable liquefied gases and a jet fire test.
2. the use of available ISO standards to conduct dry chemical powder and fire tests.
3. The development of specific provisions in the SOLAS Convention for fixed dry chemical powder fire-extinguishing systems for ship using gas as fuel in the future.
4. Approval for fire test laboratory with reference to ISO 17025 standard or an equivalent standard acceptable by Administration.

However, due to time constraints, the draft revised guidelines could not be finalized at this session, so it will be further discussed at SSE 8.

E. REQUIREMENTS FOR ONBOARD LIFTING APPLIANCES AND ANCHOR HANDLING WINCHES (AGENDA ITEM 9)

With regard to the development of new mandatory requirements for lifting appliances and anchor handling winches, the Sub-Committee finalized the draft amendments to SOLAS Chapter II-1.

These amendments are to include:

1. Definition of Lifting appliance, Anchor handling and Loose gear;
2. The application date; and
3. The requirements of:
 - a) Design, construction and installation;
 - b) Maintenance, operation, inspection and testing; and
 - c) Inoperative lifting appliances and anchor handling winches.

Further, the Sub-Committee recalled that SSE 6 had agreed to split the guidance provisions into two separate guidelines, i.e. Guidelines for Lifting Appliances and Guidelines for Anchor Handling Winches. At this session, the Sub-Committee finalized the draft Guidelines for Lifting Appliances containing a list of definitions; design, construction and installation; thorough examination and load testing; demonstration of compliance; design, manufacturing and thorough examination of loose gear; and inoperative lifting appliances and loose gear.

However, due to time constraints, the Sub-Committee could not complete draft Guidelines for Anchor Handling Winches. Thus, the Correspondence Group was established to continue the work on the draft Guidelines and provide report to SSE 8.

F. AMENDMENTS TO PARAGRAPH 4.4.7.6.17 OF THE LSA CODE CONCERNING SINGLE FALL AND HOOK SYSTEMS WITH ON-LOAD RELEASE CAPABILITY (AGENDA ITEM 12)

The Sub-Committee recalled that SSE 6, having considered a concern in relation to the applicability of the exemptions in paragraph 4.4.7.6.17 regarding single fall and hook systems, had agreed that further consideration of this matter was necessary and, therefore, invited proposal to the next session.

In order to ensure adequate safety standards for lifeboats and rescue boats fitted with single fall and hook systems with on-load release capability, the Sub-Committee established and instructed Working Group on Life-Saving Appliances (LSA) to finalize the draft amendments to paragraph 4.4.7.6.17.

Taking into account the report of Working Group, the Sub-Committee agreed to this following draft amendment to paragraph 4.4.7.6.17 of the LSA Code (new text, ~~deleted text~~):

Paragraph 4.4.7.6.17 is amended to read as follows:

"17 where a single fall and hook system is used for launching a lifeboat or rescue boat in combination with a suitable painter, the requirements of paragraphs 4.4.7.6.7, ~~4.4.7.6.8~~ and 4.4.7.6.15 need not be applicable, provided that the single fall and hook system does not have the capability to release the lifeboat or rescue boat with a load on the hook when it is not fully waterborne."

However, the Sub-Committee agreed to submit these amendments to the Maritime Safety Committee (MSC) for approval together with the amendments regarding the ventilation of survival crafts are finalized.

G. REVISION OF THE STANDARDIZED LIFE-SAVING APPLIANCE EVALUATION AND TEST REPORT FORMS (MSC/CIRC.980 AND ADDENDA) (AGENDA ITEM 13)

Having noted that consideration should be given to consequential amendments to the Standardized life-saving appliance evaluation and test report forms (MSC/Circ.980) emanating from amendments to the LSA Code and the Revised recommendation that had occurred since MSC/Circ.980 and its two addenda had been adopted in February 2001, the Sub-Committee established and instructed Working Group on Life-Saving Appliances (LSA) to finalize the draft amendments to MSC/Circ.980 by taking into account the proposals submitted during this session.

The Sub-Committee agreed to draft MSC circulars on amendments to the Standardized life-saving appliance evaluation and test report forms (MSC/Circ.980) and addenda. This draft circular will be submitted to MSC 103 for approval.

H. AMENDMENTS TO SOLAS CHAPTER III, LSA CODE AND RESOLUTION MSC.81(70) TO REMOVE THE APPLICABILITY OF THE REQUIREMENTS TO LAUNCH FREE-FALL LIFEBOATS WITH THE SHIP MAKING HEADWAY AT SPEEDS UP TO 5 KNOTS IN CALM WATER (AGENDA ITEM 15)

At SSE 6, there was a proposal discussing the implementation of SOLAS regulation III/33.2 and paragraph 5.4 of part 2 of the Revised recommendation on testing of life-saving appliances (resolution MSC.81(70)), as amended, and seeking clarification on the application of the requirements to launch free-fall lifeboats while a ship is making headway at speeds of up to 5 knots in calm waters. In order to have in-depth discussion, SSE proposed to MSC 101 for a new output.

MSC 101 had considered the proposal prepared by SSE 6 to develop appropriate amendments to the relevant provisions of SOLAS chapter III, the LSA Code and the Revised recommendation (resolution MSC.81(70)) on the application of the requirement to launch free-fall lifeboats with the ship making headway at speeds of up to 5 knots in calm water; and had agreed to include a new output on "Amendments to SOLAS chapter III, LSA Code and resolution MSC.81(70) to remove the applicability of the requirements to launch free-fall lifeboats with the ship making headway at speeds up to 5 knots in calm water.

Under this new agenda, the Sub-Committee finalized the draft amendments to SOLAS regulation III/33, the draft amendments to paragraph 4.4.1.3 of the LSA Code and the draft amendments to the Revised recommendation on testing of life-saving appliances (resolution MSC.81(70)) for submission to MSC 103 for approval and subsequent adoption, as appropriate.

In addition, the Sub-Committee, having also agreed to the proposal to encourage voluntary implementation of the above draft amendments, invited MSC 104 to approve the draft MSC circular on Voluntary implementation of the draft amendments to SOLAS chapter III, the LSA Code and the Revised recommendation (resolution MSC.81(70)).

Furthermore, the Sub-Committee considered the views regarding the merit of investigating potential effects of acceleration forces on lifeboats and invited interested Member States and international organizations to submit proposals for a relevant new output to the Committee.

I. UNIFIED INTERPRETATION OF PROVISIONS OF IMO SAFETY, SECURITY, AND ENVIRONMENT-RELATED CONVENTIONS (AGENDA ITEM 16)

The Sub-Committee considered document submitted at this session, providing a draft unified interpretation of SOLAS regulation II-2/9.2.2.3.2.2(9) that is applicable to pantry spaces, and noted the view that although the draft unified interpretation was agreeable, the term "only accessible from accommodation spaces" should be modified as "only accessible from accommodation spaces and/or open deck" and agreed that this modification would bring more clarity to the draft unified interpretation.

Subsequently, the Sub-Committee agreed to the draft unified interpretation of SOLAS regulation II-2/9.2.2.3.2.2(9) applicable to pantry spaces, as modified, and the associated draft MSC circular for submission to MSC 103 for approval.