



The 10th session of Sub-committee on Ship System and Equipment (hereinafter referred to as SSE) was convened at IMO Headquarters from 4th to 8th March 2024. This news flash briefs on the outcomes of SSE 10 on major technical issues.

1. Ventilation of partially enclosed lifeboats and liferafts (Agenda 3)

In SSE 9, development of ventilation requirements for totally enclosed-type lifeboats/rafts was completed, and discussions on the necessity of ventilation requirement for partially enclosed lifeboats emerged, which was then decided to be discussed at SSE 10.

However, the opinions were divided regarding the necessity of ventilation requirements for partially enclosed lifeboats (such as indoor CO₂ levels) and the sub-committee decided to further discuss in SSE 11.

2. Development of design and prototype test requirements for the arrangements used in the operational testing of free-fall lifeboat release systems without launching the lifeboat (Agenda 4)

Proposal for amendment of the LSA Code and MSC.81(70) to clarify the standards that should be applied during the simulation release test of the free-fall lifeboat release mechanism, including dynamic and static loads, impact loads, and corrosion resistance.

Correspondence group plans to clarify standards related to corrosion resistance, and to review the amendments to the LSA Code drafted at SSE 10, taking into account the static and dynamic loads that occur during testing, as well as to proceed with the revision of the resolution on guidelines, inspection, and testing requirements for life-saving appliances.

3. Report of the second session of the Intersessional Working Group on the amendment of SOLAS Chapter III and the LSA Code (Agenda 5)

Review of the second report of the Intersessional Working Group (ISWG) was conducted, which identified the step-by-step hazards in evacuation scenarios not thoroughly covered in SOLAS and LSA Code.

The hazards include but are not limited to: transfer from rescue boats to lifeboats, rescue of persons in water, transfer between vessels or to shore during evacuation, moving to safe locations during evacuation, alarm and notification procedures, and embarkation processes.

Each step was further subdivided to identify risk stages and assess their hazard levels. For example, in the case of personnel rescue, stages such as the speed of approaching vessel, reaching the person in water, rescue operation, and recovery of rescue boat were identified and discussed regarding the causes, effects, and probabilities of high-risk situations. Attention was also given to extraneous factors beyond time factor, such as equipment failure and deteriorating environmental conditions.

The review of the ISWG's report has been conducted, and the Correspondence Group during the intersessional period was established to develop detailed functional requirements.

4. AMENDMENTS TO SOLAS CHAPTER III AND CHAPTER IV OF THE LSA CODE TO REQUIRE THE CARRIAGE OF SELF-RIGHTING OR CANOPIED REVERSIBLE LIFERAFTS FOR NEW SHIPS (Agenda 6)

Proposal for the amendment of SOLAS and the LSA Code to extend the requirements for liferafts with self-righting or canopied reversible liferafts not only to ro-ro passenger ships but also to new passenger ships and new cargo ships.

- (China) Proposes to extend the application to all types of ships(cargo and passenger)
- (Japan) Proposes to limit the application to life rafts without launching device for more than 25 people on passenger ships

There is a conflict of opinions on whether to the application to all types of ships in international navigation, to passenger ships only, or whether there is no need for application.

Plenary was unable to decide on the scope of application and instructed the LSA working group (WG) to consult appropriately during the session, but the WG was also unable to reach a consensus. Therefore, interested member states are to submit additional documents next year on the scope of the amendment's application for discussion at SSE 11 (February 2025).

This agenda item is scheduled for discussion after SSE 11, approval at MSC 110 (May 2025), and adoption at MSC 111 (first half of 2026).

5. Proposal for a new output to amend paragraph 8.3.5 of the 1994 and 2000 HSC Codes (Agenda 7)

Proposal for Revision to the HSC (High-Speed Craft) Code to Reflect the Requirements for the Provision of Infant Lifejackets as Referenced in SOLAS Chapter III

- .1 (SOLAS) for passenger craft on voyages less than 24 h, the number of infant lifejackets equal to at least 2.5% of the number of passengers on board shall be provided.

.2 (SOLAS) for passenger craft on voyages 24 h or greater, infant lifejackets shall be provided for each infant on board.

pf. (HSC Code) No requirements

The Korean law already incorporates and enforces the standards for high-speed craft in the "Ship Safety Act".

During the SSE10, the working group finalized the draft revision of the HSC Code on this matter and instructed to submit it to MSC 109th session.

6. Amendments to the 2010 FTP Code (Agenda 8)

A proposal has been put forth to initiate discussions on revising the FTP Code to align with emerging new ship designs, particularly modular designs, and novel new fire-resistant materials like cement-based materials. The objective is to address ambiguities in terminology definitions and testing standards to ensure clarity and effectiveness in fire safety regulations.

Due to the absence of detailed draft, it was suggested that the sub-committee prepare a draft amendment to the 2010 FTP Code for deliberation at SSE 11. This amendment would incorporate considerations for new ship designs and fire-resistant materials.

7. Cargosafe for Container ship (Agenda 10)

Technical evaluation of the CARGOSAFE report** ordered by the European Maritime Agency (EMSA) and discussions on ways to strengthen fire safety, including related agendas* postponed at SSE 8 and 9 to prevent and respond to fires in container ship cargo areas

* (SSE 8) Demark - Water mist lance, China - portable infrared thermal imagers and portable infrared thermometers

(SSE 9) Republic of Korea-Fixed water monitor · Video fire detection system

** Propose 8 ways to strengthen fire safety, including portable thermal imaging cameras and remote control monitors, in four areas: Prevention, Detection, firefighting, and Containment

Reflecting the Republic of Korea's proposal, the following items were discussed. Further discussion will be held at the 11th SSE and Correspondence Group(CG).

At this meeting, there were discussions on 4(four)* documents submitted to SSE 10 and 2(two)** documents submitted to SSE 9, but no opinions were presented on the agenda documents and the agenda, all of which will be discussed in CG.

* SSE 10/10(Chair), SSE 10/10/1(IACS), SSE 10/10/2(France, BIMCO and IUMI), SSE 10/10/3(Denmark, United of Kingdom, ICS, ICHCA, P&I Clubs, ITF and WSC)

** SSE 9/10(Republic of Korea, Fixed water monitor), SSE 9/10/1(Republic of Korea, Video fire detection system)

- With the support of ICS, Australia, Japan, Malta, WSC, IUMI, Germany, BIMCO, Türkiye and the UAE, Korea's proposed fixed monitoring system will be discussed in the working group during the session.

Some delegations, including Greece, Germany, Malta, and WSC, expressed concern about the durability of CCTV cameras installed outdoors, but the video fire detection system proposed by Korea as SSE 9/10/1 and SSE 10/INF.12 will be discussed in CG with the support of delegations from Japan, Canada, the Bahamas, Bangladesh, IUMI, and BIMCO.

In CG, 8 items* were selected and discussed by combining 19 Risk Reduction Measures (RCO) including the final proposal presented by CARGOSAFE Report and the items proposed by the previously submitted agenda documents. Further discussion will be made through SSE 11 and CG. Further discussion at CG on how to improve the reliability and fire extinguishing performance of the fixed CO₂ fire extinguishing system in cargo holds.

- * ① Heat detection system looking at rise of temperature of individual containers
- ② CCTV and AI smoke detection
- ③ Portable IR cameras for crew to enhance manual detection
- ④ Manual firefighting tools that increase reach
- ⑤ Improved manual firefighting tools for individual container breaching and firefighting
- ⑥ Methods for unmanned firefighting
- ⑦ Increasing effectiveness of current CO₂ System
- ⑧ Active protection underneath hatch covers to protect from fire spread towards the deck

8. Development of provisions to consider prohibiting the use of fire-fighting foams containing fluorinated substances, in addition to PFOS, for fire-fighting on board ships (Agenda 13)

SSE10 agreed with the conclusion of the FP Correspondence Group on the revision of MSC.1/Circ.1312 addressing banning of fluorinated substances in foam concentrates that such revision is not necessary at this stage and the matter should be re-visited in case the ban is expanded to cover other types of fluor-based foam concentrates. SSE 10 advised that interested parties should make submissions to future meetings, as appropriate.

9. COMPREHENSIVE REVIEW OF THE REQUIREMENTS FOR MAINTENANCE, THOROUGH EXAMINATION, OPERATIONAL TESTING, OVERHAUL AND REPAIR OF LIFEBOATS AND RESCUE BOATS, LAUNCHING APPLIANCES AND RELEASE GEAR (Agenda 14)

Comprehensive review and discussion on Resolution MSC.402(96) for revision, with identifying Safety issues and barriers to consistent implementation for the inspection and testing of life-saving appliances in accordance with Resolution MSC.402(96).

- Res.MSC.402(96): REQUIREMENTS FOR MAINTENANCE, THOROUGH EXAMINATION, OPERATIONAL TESTING, OVERHAUL AND REPAIR OF LIFEBOATS AND RESCUE BOATS, LAUNCHING APPLIANCES AND RELEASE GEAR
- SSE 10 Instructed the Working Group to consider the list of safety issues and barriers for consistent implementation of the requirements contained in resolution MSC.402(96) (SSE 10/14, annex 2), taking into account relevant documents, for validation and prioritization, as a priority

The Working Group categorized the identified issues listed in annex 2 of document SSE 10/14, using the areas outlined in paragraph 5 of document SSE 10/14/1 and validated and agreed that the highest priority item was the definition of "make" and "type" in the context of resolution MSC.402(96).

SSE 10 Instructed to re-establish the LSA Correspondence Group with the following terms of reference:

- Terms of Reference (ToR)
 - .1 draft definitions of "make" and "type", taking into account documents SSE 10/14/1, SSE 10/14/3 and SSE 10/14/4, and any other relevant documents; and
 - .2 continue to develop, validate and prioritize the list of issues for consistent implementation of the requirements contained in resolution MSC.402(96), taking into account the categorized list set out in SSE 10/WP.3 annex 5 and relevant documents considered at SSE 10.

10. Thermal manikin testing procedures and development of amendments to LSA Code (Agenda 15)

The results for Thermal Performance Testing of Immersion Suits and Thermal Testing Standards Utilizing a Thermal Manikin (ISO/TC 188/SC 1*) was introduced.

- * The International Organization for Standardization's Subcommittee 1 of Technical Committee 188 on Personal Safety Equipment.
- The addition of GISIS module** for the list of test labs regarding thermal manikin and discussing this matter after the root ISO standards*** are enforced was proposed.

** The Global Integrated Shipping Information System of IMO

*** ISO 15027-3: The ISO Standards on thermal testing of Immersion suits(to be finished by 2025)

To be further discussed at SSE 11.

11. EVALUATION OF ADEQUACY OF FIRE PROTECTION, DETECTION AND EXTINCTION ARRANGEMENTS IN VEHICLE, SPECIAL CATEGORY AND RO-RO SPACES IN ORDER TO REDUCE THE FIRE RISK OF SHIPS CARRYING NEW ENERGY VEHICLES (Agenda 16)

Discussion on amendments to SOLAS and FSS Code and development of new guidelines related to the prevention, detection, and extinguishing devices placement for cargo (vehicles) of ships transporting new energy vehicles, including fire prevention and detection within cargo areas.

- Following instruction for new agenda item in MSC 105 ('22.4), discussion initiated from SSE 10 ('24.3).

A roadmap for effective discussion of this agenda item has been developed and approval has been granted for the establishment of the correspondence group(CG) during the session.

- In accordance with the instructions of the sub-committee, the correspondence group will develop a roadmap* for future work and finalize the Terms of Reference (ToR)** for the Correspondence Group (CG) for the session.

* Roadmap:

- ① Review of relevant information and new technologies,
- ② Identification of hazards of new energy vehicles compared to internal combustion engines,
- ③ Review of goal-based approach,
- ④ Identification of differences from existing regulations,
- ⑤ Identification of amendments to existing regulations.

** Terms of Reference (ToR):

- ① Sharing of relevant scientific research and reports, information on new technologies,
- ② Review of fixed fire detection equipment,
- ③ Additional review of video monitoring systems for fire detection.

Korea pointed out the division between perspectives on early fire detection and additional firefighting equipment in the submitted documents, emphasizing the need for comprehensive measures encompassing both fire spread prevention and response.

Considering that discussions on this agenda item should be completed by 2027, it is proposed to develop a roadmap for future discussions on possible tasks.

12. Any other business (Agenda 19)

The revision of Standards for the design, testing and locating of devices to prevent the passage of flame into cargo tanks in tankers (MSC/Circ.677)

SSE10 agreed to the draft *Revised standards for the design, testing and locating of devices to prevent the passage of flame into cargo tanks in tankers* (MSC/Circ.677) and prepared a draft revision of MSC/Circ.677 for approval by MSC 109 with an agreed effective date of 2 years after the approval of the draft revised circular.

The draft revised circular includes changes to approval standard of ISO Standards 15364:2021 for pressure/vacuum valves, reference of IEC 60079, etc. It is expected to affect the shipbuilding industry and equipment manufacturers when it comes into effect in the future. (the Revised draft will be available upon the publication of IMO final report)

Should you have inquiries, please contact P.I.C below. Thank you.

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