



NEWS BRIEF
SSE 9





NEWS BRIEF: SSE 9

The IMO Sub-Committee on Ship Systems and Equipment (SSE) held its 9th session from February 27 to March 03, 2023. This Brief provides an overview of the more significant issues progressed at this session.

KEY DEVELOPMENTS

- New Requirements for Ventilation of Survival Craft
- 2023 Code of Safety for Diving Systems
- Fire Safety on New and Existing Ro-Ro Passenger Ship
- Prohibition of Fire-Fighting Foams Containing PFOS
- New Equipment Installation Requirements for Both New and Existing Ro-Ro Passenger Ships to Reduce Fire Consequences

ABS RESOURCES

- ABS Regulatory News ([link](#))
- ABS Global Marine ([link](#))
- ABS Global Offshore ([link](#))
- ABS Type Approval and Certification Services ([link](#))
- ABS Tech Trends ([link](#))
- ABS Rules and Guides ([link](#))

WORLD HEADQUARTERS

1701 City Plaza Drive
Spring, TX 77389 USA
P 1-281-877-6000
F 1-281-877-5976
ABS-WorldHQ@eagle.org
www.eagle.org

© 2023 American Bureau of Shipping.
All rights reserved.

CONTENTS (CLICK TO FOLLOW)

LIFE-SAVING APPLIANCES

- **New Requirements for Ventilation of Survival Craft**
- **Amendments to the Revised Standardized Life-Saving Appliance Evaluation and Test Report Forms (Survival Craft)**
- **Revision of Lowering Speed of Survival Craft and Rescue Boats**
- **Single Fall and Hook Systems with On-Load Release Capability**
- **Goal-Based Framework for SOLAS Chapter III and the LSA Code - Hazard Identification Matrix**
- **Thermal Performance of Immersion Suits**
- **Revised Requirements for Ventilation Testing of Lifeboats and Rescue Boats**
- **Amendments to the Prototype Testing of Fast Rescue Boats**
- **In-Water Performance of SOLAS Lifejackets**

FIRE PROTECTION

- **Fires on Ro-Ro Spaces and Special Category Spaces of New and Existing Ro-Ro Passenger Ships**
- **Draft Amendments to SOLAS Chapter II-2 and Unified Interpretations of SOLAS Chapter II-2 and the FSS and FTP Codes (MSC.1/Circ.1456)**
- **Prohibition of Use of Fire Fighting Foams Containing PFOS Onboard Ships**

2023 CODE OF SAFETY FOR DIVING SYSTEMS

- **Revision of the Code of Safety for Diving Systems (Resolution A.831(19)) and the Guidelines and specifications for hyperbaric evacuation systems (Resolution A.692(17))**

UNIFIED INTERPRETATION OF PROVISIONS OF IMO SAFETY, SECURITY AND ENVIRONMENT-RELATED CONVENTIONS

- **Unified Interpretations of the LSA Code, the 1994 and 2000 HSC Codes about Life raft Equipment**
- **Unified Interpretations of SOLAS Chapter II-1 / Regulation 26.2 about Possible Failures in Electric Machines**
- **Unified Interpretations of SOLAS Chapter II-1 / Regulation 45.11 on the Precautions Against Shock, Fire and Other Hazards of Electrical Origin**
- **Unified Interpretations of SOLAS Chapter II-2/ Regulations 9.7.2 and 9.7.5 about Separation of ducts from spaces**
- **Other Unified Interpretations**

OTHER DEVELOPMENTS

- **Development of Draft Onshore Power Supply (OPS) Guidelines**



LIFE-SAVING APPLIANCES

New Requirements for Ventilation of Survival Craft

On November 2022, MSC 106 approved draft amendments to the LSA Code and the *Recommendation on Testing Life-Saving Appliances for the Ventilation of Totally Enclosed Lifeboats* (Resolution MSC.81(70)) to provide performance requirements for the ventilation of totally enclosed lifeboats. These amendments require totally enclosed lifeboats to provide a means of ventilation operable from inside the lifeboat at a rate of not less than 5 m³/hour per person, for the number of persons which the lifeboat is permitted to accommodate and for a period of at least 24 hours. Where the means of ventilation is powered, the source of power shall not be the radio batteries and if dependent upon the lifeboat engine, then sufficient fuel shall be provided for a period of not less than 24 hours. The ventilation system, either powered or passive type whilst in operation, should not compromise the ability of the lifeboat to self-right under any circumstance. The openings for the ventilation are to be provided with a means of closing that is operable from inside the lifeboat and positioned to minimize the ingress of water.

However, MSC 106 did not approve proposed ventilation requirements for partially enclosed lifeboats and life rafts, and returned this item to SSE 9 for further discussion. The Sub-Committee considered submissions providing evidence of rapid CO₂ concentration increases in such lifeboats and life rafts without ventilation. The Sub-Committee also considered arguments stating that there is a lack of empirical data from casualties where survival crafts were deployed and inadequate ventilation of partially enclosed lifeboats or life rafts became a hazard to occupants. The Sub-Committee determined that more information was necessary to demonstrate a compelling need for development of ventilation requirements for these survival craft types, as such requirements should be formulated on a goal-based approach. Acknowledging that additional time would be needed to address these issues, the Sub-Committee invited further submissions addressing ventilation of partially enclosed lifeboats and life rafts to the next session.

Next Steps: The draft amendments for totally enclosed lifeboats are expected to be adopted at MSC 107 (Jun. 2023). Following the adoption at MSC 107, they are expected to enter into force on 1 January 2026 and will apply to all lifeboats installed on or after 1 January 2029. Discussions on the compelling need for a similar ventilation standard for partially enclosed lifeboats and life rafts will continue at SSE 10 (Mar. 2024).

Revised Requirements for Ventilation Testing of Lifeboats and Rescue Boats

The Sub-Committee agreed to consequential draft amendments to the *Revised Requirements for Maintenance, Thorough Examination, Operational Testing, Overhaul and Repair of Lifeboats and Rescue Boats, Launching Appliances and Release Gear* (Resolution MSC.402(96)) emanating from new ventilation requirements.

The draft amendments intend to add an examination of the ventilation system fitted according to the new ventilation requirements for lifeboats in the thorough annual examination and operational testing. Having noted that ventilation systems may be fitted voluntarily on partially enclosed lifeboats with survivors relying on such systems to be always operational; and that some lifeboats, other than totally enclosed lifeboats, may be fitted with air conditioning, which also used ventilation systems, the Sub-Committee agreed not to limit the application of these requirements to totally enclosed lifeboats.

Next Steps: This development is noted and other necessary revisions to resolution MSC.402(96) will continue in an intersessional correspondence group and at SSE 10 (Mar. 2024)

Amendments to the Revised Standardized Life-Saving Appliance Evaluation and Test Report Forms (Survival Craft) (MSC.1/Circ.1630/Rev.1)

Related to the developments on survival craft ventilation discussed above, the Sub-Committee agreed to the draft amendments to the *Revised Standardized Life-Saving Appliance Evaluation and Test Report Forms (Survival Craft)* (MSC.1/Circ.1630/Rev.1) for evaluation of ventilation on totally enclosed lifeboats. The Sub-Committee's



discussions led to the deletion of all references to partially enclosed lifeboats and life rafts to ensure the new test report forms addressing ventilation performance test were applicable to totally enclosed lifeboats only.

Next Steps: The draft amendments will be presented to MSC 107 (Jun. 2023) for further consideration and approval and dissemination as MSC.1 Circ.1630/Rev.2.

Revision of Lowering Speed of Survival Craft and Rescue Boats

The Sub-Committee agreed to draft amendments to paragraphs 6.1.2.8 and 6.1.2.10 of Chapter VI of the LSA Code which address the issue of lowering speed for fully loaded survival craft and rescue boats. The LSA Code states that the minimum lowering speed is calculated using the formula $S = 0.4 + 0.02H$, where S represents the lowering speed in meters per second and H represents the height in meters from the davit head to the waterline when the ship is at its lightest sea-going condition. However, due to the construction of larger cargo ships with higher launching heights, it has become challenging to maintain the required minimum lowering speed. To address this, the Sub-Committee has added a maximum lowering speed of 1.3 m/s and recognized the need to include a minimum lowering speed of 1.0 m/s. Furthermore, the Sub-Committee agreed that the scope should be expanded accordingly to cover passenger ships, in order to keep lowering speed of survival craft and rescue boats within a reasonable margin by limiting both minimum and maximum speeds.

Next Steps: The draft amendments will be presented to MSC 107 (Jun. 2023) for further consideration.

Single Fall and Hook Systems with On-Load Release Capability

Lifeboats and rescue boats equipped with a single fall and hook system have a similar risk of accidental release during recovery operations as those with twin fall and hook systems. Therefore, they should have similar safety standards since they are used and tested in the same way. In 2020, paragraph 4.4.7.6.17 of the LSA Code was modified to address this issue. However, it was discovered that deleting a reference to paragraph 4.4.7.6.8 would result in applying it to off-load hooks, which is inappropriate for some mechanically simple off-load hooks with few moving parts. To resolve this issue, the Sub-Committee agreed to the draft amendments to Chapter IV of the LSA Code regarding single fall and hook systems. The revised text would retain the agreed-upon amendments to paragraph 4.4.7.6.17 while amending paragraph 4.4.7.6.8 of the LSA Code for clarity.

Next Steps: The draft amendments will be presented to MSC 107 (Jun. 2023) for further consideration and approval.

Goal-Based Framework for SOLAS Chapter III and the LSA Code - Hazard Identification Matrix

The Sub-Committee continued discussions from the previous session and an intersessional working group regarding revising SOLAS Chapter III and the LSA Code. The main goals of the revision were to establish a safe and effective process for maintaining human life during and after abandonment ship situations, detecting and recovering people who have abandoned ship, safely rescuing individuals in need of assistance from the water and safely transferring sick or injured individuals from the vessel.

To achieve these goals, the Sub-Committee reviewed the outcomes of the Hazard Identification (HAZID) Workshop on LSA and concluded that the approach used during the workshop is a suitable tool for identifying hazards and associated risks as a basis for further work on functional requirements and regulations. The draft hazard identification matrix relevant to ranking hazards was also discussed and progressed. The Sub-Committee invited member states and international organizations to provide specific casualty data related to post-abandonment recovery, including survival time in the water.

Next Steps: Due to time constraints, this subject was not able to be finalized at this session. Discussions on this subject will continue in an intersessional correspondence group and at SSE 10 (Mar. 2024).



Thermal Performance of Immersion Suits

MSC 84 started to consider further work on the thermal performance of immersion suits. However, it was decided to postpone developing any amendments until additional practical work is conducted, including determining suitable thermal resistance criteria and finalizing and validating the testing methodology.

At this session, the Sub-Committee received several proposals for amendments to the LSA Code regarding the thermal performance of immersion suits and ultimately decided to update the only test forms in the *Revised Standardized Life-Saving Appliance Evaluation and Test Report Forms (Personal Life-Saving Appliances)* (MSC.1/Circ.1628) in connection with thermal manikin tests.

Regarding low-temperature tolerance time threshold of immersion suits, the Sub-Committee agreed to the draft amendments to paragraph 3.2.3 of MSC.81(70) on thermal protective tests to include a 15-minute time frame for the thermal manikin tests. This means that a test would be stopped if the core temperature falls more than 1.5 degrees C per hour after the first half-hour, if the skin temperature of the hand, foot, or lumbar region drops below 10 degrees C for more than 15 minutes.

Next Steps: The draft amendments will be presented to MSC 107 (Jun. 2023) for further consideration.

Amendments to the Prototype Testing of Fast Rescue Boats

The Sub-Committee agreed draft amendments to the *Revised Recommendation on Testing Life-Saving Appliances for the Ventilation of Totally Enclosed Lifeboats* (Resolution MSC.81(70)) specifically related to the ventilation performance testing, which would also be applicable to fast rescue boats (FRB).

While considering the changes to guidelines for testing life-saving appliances, the Sub-Committee reviewed a proposal to exclude FRBs from ventilation performance testing, but ultimately agreed on minor changes and drafted new testing requirements for rigid, inflated and rigid/inflated FRBs in paragraphs 7.4.1, 7.5 and 7.6 of resolution MSC.81(70).

Next Steps: These new requirements will be submitted to MSC 107 (Jun. 2023) for further consideration in conjunction with the draft amendments approved for ventilation requirements for survival craft, as approved in principle by MSC 106 (Nov. 2022).

In-Water Performance of SOLAS Lifejackets

The Sub-Committee finalized draft amendments to Chapter II of the LSA Code, as well as consequential amendments to the *Revised Recommendation on Testing of Life-Saving Appliances* (Resolution MSC.81(70)) regarding the performance of life jackets in the water. These amendments covered the following life jacket performance aspects:

- Draft amendments to the LSA Code Chapter II on the Personal Life-Saving Appliances
 - Life jackets to maintain a minimum buoyancy of 150 Newtons for the duration of the buoyancy test.
 - Life jacket to turn the body of an unconscious person to a face-up position where the nose and mouth are both clear of the water.
 - Life jacket shall be provided with a retention device to minimize their displacement from the original fitted position on the wearer when subject to dynamic forces such as waves.
- Draft amendments to the *Revised Recommendation on the testing of life-saving appliances* MSC.81(70) which includes changes to the buoyancy test, shoulder lift test and the righting test.
- Consequential amendments to the lifejacket test form in the *Revised standardized life-saving appliance evaluation and test report forms (Personal Life-Saving Appliances)* MSC.1/Circ.1628.

Next Steps: The draft amendments will be presented to MSC 107 (Jun. 2023) for further consideration.



FIRE PROTECTION

Fires on Ro-Ro Spaces and Special Category Spaces of New and Existing Ro-Ro Passenger Ships - Draft amendments to SOLAS and the FSS Code

The Sub-Committee further progressed the development of several amendments to SOLAS Chapter II-2 and associated codes to improve fire safety requirements on new and existing Ro-Ro passenger ships. The amendments apply to enclosed ro-ro spaces and weather decks intended for the carriage of vehicles on Ro-Ro passenger ships and will introduce several key features intended to improve fire safety.

The Sub-Committee discussed principal fire protection measures, such as fixed water-based fire-extinguishing systems protecting weather decks, openings in ro-ro spaces provided with closing devices, continuous video monitoring for existing ships and safety distance from accommodation and openings of ro-ro spaces and weather ro-ro deck. The implementation date for the draft amendments is agreed to be 1 January 2026 for new ships and 1 January 2028 for existing ships, provided that the amendments will be adopted before 1 July 2024.

Arrangement of openings in ro-ro and special category spaces on new ro-ro passenger ship.

The Sub-Committee considered the arrangements for openings in ro-ro spaces and special category spaces on new ro-ro passenger ships and agreed to the term "normally occupied service spaces" for service spaces that do not need extra protection beyond the existing requirements in SOLAS regulation II-2/9.2. In addition, the Sub-Committee agreed to delete the option to reduce the safety distance from 6.0 m to 3.0 m when deluge nozzles were provided and decided that windows should be protected by "A-60" class or "A-0" class with a water-based system with an application rate of at least 5.0 L/min per square meter to define in detail the extent of the entire area that needs protection.

Arrangement of weather deck on new ro-ro passenger ship.

The arrangement of weather decks and special category spaces on new ro-ro passenger ships was considered, and it was agreed to use the term "normally occupied service spaces." Considering the safety distance from designated vehicle lanes to accommodation spaces, control stations and normally occupied service spaces in superstructures and deckhouses adjacent to the weather deck, the Sub-Committee agreed to include provisions to reduce the safety distance from 6.0 m to 3.0 m when the boundary within 6.0 m was protected by "A-60" class or alternatively, "A-0" class with a water-based system with an application rate of at least 5.0 L/min per square meter.

Water monitors for protection of weather deck on existing ro-ro passenger ship.

The Sub-Committee agreed to introduce a retroactive requirement for water monitors to protect the weather deck on existing Ro-Ro passenger ships. For existing passenger ships, a fixed water-based fire extinguishing system based on the monitor(s) shall be installed to protect areas on weather decks intended for the carriage of vehicles. In passenger ships, vehicle, special category and ro-ro spaces where fixed pressure water-spraying systems are fitted shall be provided with suitable signage and marking on the deckhead and bulkhead and on the vertical boundaries allowing easy identification of the sections of the fixed fire extinguishing system. Suitable signage and markings shall be adapted to typical crew movement patterns, considering obstruction by cargo or fixed installations. The section numbering indicated inside the space shall be the same as section valve identification and section identification at the safety center or continuously manned control station.

Linear heat detectors in SOLAS and the FSS Code.

The Sub-Committee considered proposed changes to SOLAS regulation II-2/20.4.1, which involves using heat detectors on ro-ro passenger ships. The substitution of point heat detectors with linear heat detectors was agreed to as an amendment to the regulation. Linear heat detectors shall be tested according to standards EN 54-22:2015 and IEC 60092-504. Alternative testing standards may be used as determined by the Administration. The draft amendments do not include a substitution of smoke detectors and existing ships shall also comply upon adoption of the resolution by the Committee.



Draft amendments to MSC.1/Circ.1430/Rev.2

The Sub-Committee considered 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.2) on the definition of the term "free height". A new definition of "height of the protected space" is added and the term "free height" is replaced by "height" throughout the circular.

Next Steps: The draft amendments SOLAS chapter II-2 and FSS Code will be presented to MSC 107 (Jun. 2023) for further consideration along with the amended revised guidelines MSC.1/Circ.1430 that will be circulated as MSC.1/Circ.1430/Rev.3.

Draft Amendments to SOLAS Chapter II-2 and Unified Interpretations of SOLAS Chapter II-2 and the FSS and FTP Codes (MSC.1/Circ.1456)

Consequential draft amendments to *Unified Interpretations of SOLAS Chapter II-2 and the FSS and FTP Codes* (MSC.1/Circ.1456) were finalized, addressing fire protection of control stations on cargo ships emanating from draft amendments to SOLAS regulation II-2/7.5.5 with respect to the protection of accommodation and service spaces and control stations.

Next Steps: The draft amendments will be presented to MSC 107 (Jun. 2023) for further consideration and will be circulated as MSC.1/Circ.1456/Rev.1.

Prohibition of Use of Fire-Fighting Foams Containing PFOS Onboard Ships

In November 2022, the Maritime Safety Committee approved amendments to SOLAS Chapter II-2, the 1994 HSC Code, and the 2000 HSC Code intended to prohibit the use or storage of fire-fighting foams containing PFOS (perfluorooctane sulfonic acid) for fire fighting onboard ships due to their toxic nature. The prohibition covers both fixed and portable systems and includes all extinguishing media that contain PFOS and can be used in fire extinguishing equipment. A new section called "Fire Extinguishing Media Restrictions" is being added to SOLAS and the HSC Codes to make it easier to include future prohibitions or limitations of extinguishing media that are found to be hazardous to people and the environment. The new restrictions on foam concentrates require manufacturers to submit a written declaration stating that their candidate foam concentrate does not contain any amount of perfluorooctane sulfonic acid (PFOS) before undergoing type approval tests.

The Sub-Committee continued to discuss the potential expansion of the existing prohibition on fire fighting foam types beyond PFOS, such as PFOA (perfluorooctanoic acid) and whether consequential amendments are required to the revised guidelines for the *Performance and Testing Criteria and Surveys of Low-Expansion Foam Concentrates for Fixed Fire-Extinguishing Systems* (MSC.1/Circ.1312). However, due to time limitations, the drafting and finalization of the amendments to MSC.1/Circ.1312 will be carried out by a correspondence group and presented to the next session of the Sub-Committee.

Moreover, proposals to further revise the amendments approved at MSC 106 (Nov. 2022) were considered to replace the term PFOS with PFAS (fluorinated substances that contain at least one fully fluorinated methyl or methylene carbon atom), which shall facilitate a complete ban on all fluorine containing PFAS chemicals. Although there are fluorine-free fire fighting foam concentrates already available in the market, existing alternatives for foam concentrate have different characteristics in terms of density and viscosity which might affect existing fire fighting systems and appliances onboard ships. At this stage, the Sub-Committee agreed to revise the title of the existing work output to "Development of provisions to consider prohibiting the use of fire-fighting foams containing fluorinated substances, in addition to PFOS for firefighting on board ships" and pursue this work further if approved by the MSC.

Next Steps: The SOLAS amendments related to the PFOS prohibition are anticipated to be adopted at MSC 107 (Jun. 2023) with an anticipated entry into force on 1 January 2026. Development of a broader prohibition of fire fighting foams containing fluorinated substances is expected to continue at SSE 10 (Mar. 2024).



2023 CODE OF SAFETY FOR DIVING SYSTEMS

Revision of the Code of Safety for Diving Systems (Resolution A.831(19)) and the Guidelines and Specifications for Hyperbaric Evacuation Systems (Resolution A.692(17))

MSC 99 approved a new output to review the 1995 Diving Code and associated Guidelines for hyperbaric evacuation systems. This review aimed to ensure that they align with current industry best practices without creating a new instrument. However, as the work progressed, it was clear that merely revising the 1995 Code and Guidelines would not be enough to improve commercial diving safety, as the 1995 Code only considers the diving unit itself and not whether the vessel is suitable to be used as a platform for diving operations.

As a result, it was decided to create a new *2023 Diving Code*, using a goal-based standard approach. This new Code will apply to all ships carrying diving systems, regardless of whether they are fixed or temporary, surface orientated or saturation. The main objective of the new Code is to achieve the following:

- Verify the suitability of all types of diving systems
- Verify the suitability of the ship to function as a diving platform
- Verify the suitability of arrangements for evacuating divers in saturation from the ship to a safe location
- Verify that, where applicable, the ship's safety management system for diving operations with the ISM Code aligns with the diving organization's safety management system

The Sub-Committee considered that the existing instruments *1995 Code* (Resolution A.831(19), as amended) and the *Guidelines and Specifications for Hyperbaric Evacuation Systems* (Resolution A.692(17)) would need to co-exist along with the new Code upon its adoption and to be produced as a combined single instrument addressing both the diving safety and the specifications for hyperbaric evacuation. Therefore, an expansion of the output was approved to develop a new instrument in parallel to the existing 1995 Diving Code.

The Sub-Committee finalized the draft MSC resolution on the *International Code of Safety for Diving Operations* (2023 Diving Code) along with a draft of the guidance on implementation of the Code of Safety for Diving Operations which has been included as an appendix to the 2023 Code. This Code has been developed to provide an international standard of safety for diving units, which will result in a level of safety for a diving operation on a diving platform equivalent to that required by SOLAS and its application is voluntary. Ships of no less than 500 gross tonnage may follow the Code and the Administration may also apply these provisions as far as reasonable and practicable to ships less than 500 gross tonnage, ships of any age and other objects acting as a diving unit but to which SOLAS does not apply.

The 2023 Diving Code includes the introduction of a two part certificate system developed to allow the application of temporary and surface orientated diving systems. Namely, the Diving Unit Safety Certificate (DUSC) part I issued to the diving unit and a DUSC Part II issued to the diving system. The DUSC Part I intends to confirm the diving unit as a whole (ship and diving system), while the DUSC Part II intends to allow a diving system to be portable and owned/operated and classed by different entities than the ship it is installed upon.

Table 1: Examples in application for existing systems and diving units

Code and Guidelines to be applied		
Diving system	Existing	1995 Diving Code (1) and Existing Guidelines (2)
	New	[2023] Diving Code incorporating Guidelines (3)
Diving unit	Existing	[2023] Diving Code incorporating Guidelines (3)
	New	[2023] Diving Code incorporating Guidelines (3)
(1) A.831(19) Code of Safety for Diving Systems (2) A.692(17) Guidelines and Specifications for Hyperbaric Evacuation Systems (3) Code of Safety for Diving Operations		

Next Steps: The draft amendments together with the associated draft resolutions or Assembly resolutions will be presented to MSC 107 (Jun. 2023) for further consideration.

UNIFIED INTERPRETATION OF PROVISIONS OF IMO SAFETY, SECURITY AND ENVIRONMENT-RELATED CONVENTIONS

Unified Interpretations of the LSA Code, the 1994 and 2000 HSC Codes about Life raft Equipment

The Sub-Committee agreed to a draft MSC circular on unified interpretations of the LSA Code, the 1994 and 2000 HSC Codes regarding paragraphs 4.1.5.1.13, 4.4.8.16 and 5.1.2.2.7 of the LSA Code – Equipment of life raft, lifeboat and rescue boat, respectively, paragraph 3.8.10 of annex 10 to the 1994 HSC Code – Equipment of open reversible life raft and paragraph 3.8.10 of annex 11 to the 2000 HSC Code – Equipment of open reversible life raft. The unified interpretation suggests that if a torch uses a filament bulb or a single LED as its light source for the life raft equipment, then a spare bulb must be provided. However, if the torch has multiple LEDs and the failure of one LED does not affect the functionality of the others, then a spare LED is not required. The provision of a second ready-for-use waterproof electric torch suitable for morse signaling can be accepted as an alternative to providing one spare set of batteries and one spare bulb in a waterproof container.

Next Steps: The draft unified interpretations will be presented to MSC 107 (Jun. 2023) for further consideration and approval.

Unified Interpretations of SOLAS Chapter II-1 / Regulation 26.2 about Possible Failures in Electric Machines

The Sub-Committee agreed to a draft MSC circular on unified interpretations of SOLAS chapter II-1 about possible failures in electric machines. The circular requires that ships maintain or restore sufficient propulsion capacity within a reasonable time frame in case of winding insulation or excitation failures. Single electric propulsion motors (both single and dual winding with a single rotor) for main propulsion should not be considered to provide the reliability required for a single essential propulsion component. A separate propulsion unit sufficient to give the ship a navigable speed should be required for such arrangements. However, propulsion arrangements with two independent rotors on a single shaft can provide the required reliability if it is possible to de-excite or de-flux each rotor individually and supply the stators independently.

Next Steps: The draft unified interpretations will be presented to MSC 107 (Jun. 2023) for further consideration and approval.

Unified Interpretations of SOLAS Chapter II-1 / Regulation 45.11 on the Precautions Against Shock, Fire and Other Hazards of Electrical Origin

The Sub-Committee approved draft amendments to an MSC Circular on the Revised Hazardous Area Classification in respect of the selection of electrical equipment, cables and wiring and positioning of openings and air intakes to address inconsistencies between the standard IEC 60092-502 published by the International Electrotechnical Commission (IEC) and relevant IMO instruments.

Next Steps: The draft unified interpretations will be presented to MSC 107 (Jun. 2023) for further consideration and subsequent circulation as MSC.1/Circ.1557/Rev.1. The revised Circular will supersede MSC.1/Circ.1557.

Unified Interpretations of SOLAS Chapter II-2/ Regulations 9.7.2 and 9.7.5 about Separation of Ducts from Spaces

The Sub-Committee approved draft amendments to unified interpretations of regulations II-2/9.7.2 and 9.7.5 – Separation of ducts from spaces, in the *Unified Interpretations of SOLAS Chapter II-2* (MSC.1/Circ.1276) originally developed to address requirements for separation of galley exhaust ducts from the spaces they pass through, in order to align with the provisions of the SOLAS Convention, as amended by the *Amendments to the International Convention for the Safety of Life at Sea, 1974* (Resolution MSC.365(93)).

Next Steps: The draft unified interpretations will be presented to MSC 107 (Jun. 2023) for further consideration and subsequent circulation as MSC.1/Circ.1276/Rev.1.



Other Unified Interpretations

Due to time constraints and further technical discussions required, discussion of Unified Interpretations addressing the following subjects will be deferred to the next session:

- 1) Launching arrangements of rescue boats on a cargo ship.
- 2) Means of escape from the steering gear space on cargo ships
- 3) Cargo/vapor piping and related gas-freeing piping/ducts on tankers
- 4) Testing requirements for the floor covering materials
- 5) Fire testing requirements for pipe couplings
- 6) Valve arrangements in the FSS Code
- 7) Unified interpretation of paragraph 2.1.2.6 of chapter 5 of the FSS Code, regarding the air testing fitting installed in the discharge piping of fixed carbon dioxide systems
- 8) Unified interpretation of SOLAS regulations II-2/19.3.4.1 and II-2/19.3.5.4, regarding required air changes for the carriage of dangerous goods
- 9) Interpretation of SOLAS regulation II-2/9.7.4.5 on vertical ducts
- 10) LSA Code concerning lifeboat exterior color (MSC.1/Circ.1423) and the extent to which the lifeboat exterior must be of a highly visible color.

OTHER DEVELOPMENTS

Development of Draft Onshore Power Supply (OPS) Guidelines

The Sub-Committee finalized the draft *Interim Guidelines on The Safe Operation of Onshore Power Supply (OPS) Service in Port for Ships Engaged on International Voyages*. The draft interim guidelines aim to establish an international standard for safe OPS service on ships during international voyages in port. Furthermore, it was agreed to remove the definitions of high and low voltage introduced with reference to standard IEC/IEEE 80005-1:2019 due to inconsistency between the definitions of the term "high voltage" of the Interim Guidelines and ones of the 1978 STCW Convention to avoid confusion.

Next Steps: The draft interim guidelines will be submitted to MSC 107 (Jun. 2023) for further consideration and approval.



CONTACT INFORMATION

NORTH AMERICA REGION

1701 City Plaza Dr.
Spring, Texas 77389, USA
Tel: +1-281-877-6000
Email: ABS-Amer@eagle.org

SOUTH AMERICA REGION

Rua Acre, n° 15 - 11° floor, Centro
Rio de Janeiro 20081-000, Brazil
Tel: +55 21 2276-3535
Email: ABSRio@eagle.org

EUROPE REGION

111 Old Broad Street
London EC2N 1AP, UK
Tel: +44-20-7247-3255
Email: ABS-Eur@eagle.org

AFRICA AND MIDDLE EAST REGION

Al Joud Center, 1st floor, Suite # 111
Sheikh Zayed Road
P.O. Box 24860, Dubai, UAE
Tel: +971 4 330 6000
Email: ABSDubai@eagle.org

GREATER CHINA REGION

World Trade Tower, 29F Room 2906,
500 Guangdong Road, Huangpu District,
Shanghai, China 200000
Tel: +86 21 23270888
Email: ABSGreaterChina@eagle.org

NORTH PACIFIC REGION

11th Floor, Kyobo Life Insurance Bldg.
7, Chungjang-daero, Jung-Gu
Busan 48939, Republic of Korea
Tel: +82 51 460 4197
Email: ABSNorthPacific@eagle.org

SOUTH PACIFIC REGION

438 Alexandra Road
#08-00 Alexandra Point, Singapore 119958
Tel: +65 6276 8700
Email: ABS-Pac@eagle.org

© 2023 American Bureau of Shipping.
All rights reserved.

