



# IMO SDC 8 Meeting Summary

January 17-21, 2022

The 8th session of the Sub-Committee on Ship Design and Construction (SDC) of the International Maritime Organization met remotely from 17 to 21 January 2022.

Liberia was represented throughout SDC 8 in the plenary session and in all the 6 working, expert and drafting groups established:

WG	Working Group on Revision of the Performance standards for water level detectors on bulk carriers and single hold cargo ships other than bulk carriers (resolution MSC.188(79))
WG	Working Group on Underwater Noise Reduction
WG	Working Group on ESP Code Amendments
EG	Expert Group on Development of Functional Requirements for SOLAS Chapter II-1
DG	Drafting Group on Carriage of More Than 12 Industrial Personnel on Board Vessels Engaged on International Voyages
DG	Drafting Group on Intact Stability

## STABILITY AND SUBDIVISION

### Explanatory Notes to the Interim guidelines on the second generation intact stability criteria

The second-generation intact stability guidelines were approved at MSC 102 as MSC.1/Circ.1627.

Some Member States started applying it on a trial basis, which is what the guidelines are intended for. Impacts on existing designs are yet to be seen.

SDC 8 completed the explanatory note for approval by MSC 105 and closed this work program that had lasted over 20 years. Any result of the trial application will be reported to the SDC Sub-Committee under "Any other business".

### Water level detectors on cargo ships, other than bulk carriers and tankers, with multiple cargo holds

The Sub-Committee considered draft amendments to the Performance standards for water level detectors on bulk carriers and single hold cargo ships other than bulk carriers (resolution MSC 188(79)). The performance standards, being adopted in 2004, were due for review and to expand its application also to water level detectors on multiple hold cargo ships other than bulk carriers and tankers as prescribed in new SOLAS regulation II-1/25-1.

Various amendments to the standards were agreed to, along with insertion of two new sections with respect to the

use of bilge alarms as water level detectors on multiple hold cargo ships for compliance with new SOLAS regulation II-1/25-1 and the periodic testing of water level detectors on board.

It is anticipated that the new performance standards will apply to water level detectors installed on or after 1 January 2024.

### Proposed unified interpretation of regulation 37(3) of the 1988 Load Lines Protocol - Deduction for Superstructures and Trunks

The Sub-Committee considered the proposal containing a draft unified interpretation of regulation 37(3) of the International Convention on Load Lines:

- for ships assigned a type 'B' freeboard, including reduced type 'B', if the effective length of a forecastle is less than 0.07L, a superstructure deduction cannot be applied to the ship; and
- in case the ship has a full superstructure (one that extends from AP to FP, per regulation 3(10)(h) of Annex B of the 1988 Load Lines Protocol), the deduction for a superstructure may be applied.

While discussing the possible impact of the draft interpretation on ships with unconventional bow profile (e.g. inverted bow), the draft unified interpretation was finalized to be issued as MSC.1/Circ.1535/Rev.2.

### Proposal for a new unified interpretation relating to the

## amendment of the stability/loading information in conjunction with the alterations of lightweight

The Sub-Committee considered the draft unified interpretation of SOLAS regulations II-1/5.4 and II-1/5.5 concerning when a revision of stability booklets or instruments would need to be made to utilize new lightship properties in conjunction with the alterations of lightweight beyond specified deviation limits. The draft unified interpretation was finalized and proposed to be issued as a new MSC Circular.

### Testing of penetrations in watertight bulkheads

Clarification was inquired for the application of SOLAS regulation II-1/13 and II-1/13-1 with regard to types of penetrations required to be pressure tested after fire endurance testing.

The Sub-Committee agreed to apply the requirements to heat-sensitive pipes, but not cable penetration. The Sub-Committee invited the interested member to submit a concrete proposal to the next session.

### Timber deck cargoes

SDC 8 endorsed the draft revised interpretation of Timber deck cargo (MSC/Circ.998) in the context of damage stability requirements to align with the SOLAS amendments and the revocation of the 1991 Timber Code, for submission to MSC 105 for approval.

## UNDERWATER NOISE

### Review of the Guidelines for the reduction of underwater noise (MEPC.1/Circ.833)

The Sub-Committee commenced its review of MEPC.1/Circ.833 Guidelines for the reduction of underwater noise. It can be recalled that these Guidelines were published in 2014 and are intended to provide general advice about reduction of underwater noise to designers, shipbuilders and ship operators. The objective of the review is to enhance the technical guidance of, as well as the general uptake of, the Guidelines.

In an effort to facilitate the review of the Guidelines, SDC 8 agreed on a work plan that aims to complete the work on the Guidelines by July 2023.

While no formal decisions were made, SDC 8 had an initial discussion on the technical direction of the proposed Guidelines, and the following general items are on the table for further consideration:

- The application of operational (e.g. slowing down) and technical (e.g. hull/propeller modifications) noise reduction measures to both new and existing ships;
- The determination of appropriate measurement and

monitoring methods;

- The determination of noise thresholds based on geographical characteristics (wildlife, depth, ice, etc.); and
- The possibility of making the Guidelines mandatory in the future.

SDC 8 recognized that there are benefits and trade-offs between underwater noise reduction measures and other pollution prevention measures (such as GHG reduction measures). Liberia expects that the review of operational and technical measures will at least take impacts on a ship's carbon intensity into account.

IMO Members will begin their consideration of technical and operational measures, as well as relevant applications, within the Correspondence Group (CG) on this subject.

## 2011 ESP CODE AMENDMENTS

The investigation determined MV Stellar Daisy, a self-propelled double-skin bulk carrier, foundered due to a structural failure in the No.2 port water ballast tank (WBT) that initiated progressive structural failure in the cargo length and a total loss of buoyancy. The investigation identified safety issues related to various IMO instruments, including the 2011 ESP Code. See [also discussion on the amendments to SOLAS Chapter XII below](#).

### Proposed amendments to the ESP Code

Amendments to the ESP Code were prepared, taking into consideration of the investigation report. Accordingly, the following proposals were agreed by the Sub-Committee during this session:

1. Examination criteria of corrosion prevention system for ballast tanks in all bulk carriers, regardless of build, was revised from POOR to less than GOOD.

The proposal:

- will require an examination at annual intervals when the system is found to be in POOR or FAIR condition during the renewal or intermediate surveys, and
- is applicable to Single-Side Skin and Double-Side Skin Bulk Carriers

2. The same examination criteria were introduced to double-side skin void spaces bounding cargo holds for bulk carriers exceeding 20 years of age and of 150m in length and upwards

### Oil tankers carrying oil in independent tanks

It was confirmed that oil tankers carrying oil in independent tanks, which do not form part of ship's hull, are outside the scope of the ESP Code. Accordingly, the definitions of Double-hull oil tanker and Oil tanker were revised to clarify

that the ESP Code is applicable to oil tankers constructed primarily to carry oil in bulk in cargo tanks forming an integral part of the ship's hull.

## DEVELOPMENT OF FUNCTIONAL REQUIREMENTS FOR SOLAS CHAPTER II-1

### Functional requirements and expected performance for SOLAS chapter II-1, Part D for inclusion in the Revised Guidelines (MSC.1/Circ.1212/Rev.1)

The work is to develop functional requirements (FR) and expected performance (EP) based on the work of the CG, which was based on existing SOLAS regulations in part D and relevant part of Chapter II-1. The CG report analyses base regulations that were used for summarizing Functional Requirements (FR) and Expected Performance (EP).

The following FRs are agreed, and under each FR, there are a set of EPs. In the deliberations of the Expert Group, Liberia reminded the group that this is for alternative design arrangements thus, too much detailed (prescriptive) EP may not serve a purpose.

- FR 1: Provide sufficient power to electrical loads in normal and emergency conditions
- FR 2: Maintain electrical power supply in normal and emergency conditions
- FR 3: Restore electric power supply after malfunction
- FR 4: Limit impact of incidents not originating from electrical systems
- FR 5: Prevent shock, fire and other hazards of electrical origin
- FR 6: Provide and maintain adequate illumination for normal and emergency conditions.

### Timeframe of the future work

- Finalize the draft goal, functional requirements and expected performance of SOLAS chapter II-1, Part E at SDC 10;
- Finalize the draft amendment to MSC.1/Circ.1212/Rev.1 for inclusion of goal, functional requirements and expected performance of SOLAS chapter II-1, Part C, D and E at SDC 10.

## TRANSPORTATION OF INDUSTRIAL PERSONNEL

### Amendments to SOLAS and the new IP Code

The Sub-Committee reviewed the outcome of the intersessional working group and completed draft SOLAS Chapter XV and the Draft International Code of Safety for Ships Carrying Industrial Personnel (IP Code). The Code applies to new and existing ships of 500 gt or above engaged on international voyages. Expected entry into

force on 1 July 2024, or 1 January 2026. The Key decisions by the Sub-Committee at this session are as follows:

- **Clarification of application between IP code and SPS Code:** The issue was left for the second phase of the work.
- **Application to passenger ship:** The current draft will not apply to passenger ships, but this matter will be revisited during the second phase of the work as currently, passenger ships do not have any provision for personnel transfer in the offshore environment.
- **Sleeping berth for high-speed draft IP:** This will be left for the second phase of the work. The current code will not allow the sleeping berth as that is banned by the HSC Code.
- **High Speed IP with more than 60 personnel:** This is also left for the second phase of the work.

### Second phase of the work

As mentioned above, the work will continue to develop the explanatory notes for the Code and revisit gap areas.

## PERFORMANCE STANDARDS FOR PROTECTIVE COATINGS (PSPC)

### Mandatory application of the performance standard for protective coatings for void spaces on bulk carriers and oil tankers

At SDC 7, noting no information on the subject was provided, agreed to consider the matter again at SDC 8.

As no proposal was made at the SDC 8, it decided to close this item.

### PSPC void spaces all ships

The Sub-Committee received no submissions on this agenda item. Similar to its consideration of the mandatory application of PSPC for void spaces of bulk carriers and oil tankers, SDC 8 decided to close this item.

## POLAR OPERATION

### Safety measures for non-SOLAS ships operating in polar waters

SDC 7 completed work relating to fishing vessels operating in polar waters. SDC 8 starts addressing non-SOLAS ships (merchant ships).

Owing to time constraints and the absence of any submissions to the session, the Sub-Committee decided to invite proposals for the development of safety measures for commercial yachts and/or cargo ships, both in size below 500 gross tonnage down to 300 gross tonnage, to

SDC 9.

### Operational assessment

There was a question whether an operational assessment could be used to exempt or reduce the equipment requirements of the Polar Code for category C (open water) polar ships.

SDC 8 agreed that the operational assessment required by paragraph 1.5 of part I-A of the Polar Code should not be used to exempt or reduce equipment requirements for ships subject to the Code and that neither SOLAS chapter XIV nor the Polar Code was open to such an interpretation.

### Stability calculation

There was also a question on stability calculation. Currently, while intact stability takes into account ice accretion, the damage stability calculation does not take it into consideration.

While there are supports to the proposal, some pointed out that this is not specific to the Polar Code but all ships that navigate in an area of ice accretion. SDC 8 invited stakeholders to come back after working together.

## ASBESTOS BAN ON MODUS

The Maritime Safety Committee, at its 103<sup>rd</sup> meeting, approved a new work to develop relevant amendments to regulation 2.10 of the 2009 MODU Code, the 1979 MODU Code and the 1989 MODU Code in order to align them with the provisions of SOLAS regulation II-1/3-5 to prohibit the use of materials containing asbestos in the structure of mobile offshore drilling units and to develop respective interpretations.

Due to time constraints, SDC 8 focused on formation of the CG, which was agreed. However, a few members expressed concerns over the period of grace in the proposal, i.e., whether that is the period of grace for the essential use (for the new installation) or removal of the asbestos as per MSC Circ.1379. The matter will be addressed by the CG.

## EMERGENCY TOWING EQUIPMENT FOR NON-TANKERS

In accordance with resolution MSC.35(63) (amended by resolution MSC.132(75) and MSC/Circ.966), tankers of not less than 20,000 deadweight tons must have an emergency towing arrangement, fore and aft, and a towing procedure. Other types of ships (MSC.1/Circ.1255) are only required to have a towing procedure. MSC 103 agreed to consider applying the requirements for tankers to other ship types.

A Member State proposed to:

- Apply the requirements ships of 150,000 GT and above

- Apply to new ships only.

Other States proposed to maintain 20,000 GT as the threshold. The paper also proposes amending the Guidelines on Emergency Towing Arrangements for Tankers (resolution MSC.35(63), as amended) extend those Guidelines to ship types other than tankers.

Due to time constraints, SDC 8 postponed the discussion to SDC 9. Members are invited to directly communicate with submitters on any comments toward SDC 9.

## OTHER UNIFIED INTERPRETATIONS

### Service tank arrangements

SOLAS regulation II-1/26/11 require two service tanks to which IACS had unified interpretation (UI SC123) for allowing two different fuel-grade tanks to use as a backup of each other. While IACS presented a further revision to the UI SC123, taking into account the amendments to the MARPOL Convention, the IMO (SDC 6 and MSC 101) could not agree on the proposal due to safety reasons (to prevent thermal shock for rapid changeover). IACS again tried to address the matter as amendments to MSC.1/Circ.1572/Rev.1. In the revised proposal "one hour" limitation of the changeover is removed, and reference to the fuel is not the Heavy Fuel Oil (HFO)/MDO but to address the difference of the temperature.

The Sub-Committee agreed that further consideration of this proposal would be required. Thus, it invited interested Member States and international organizations to continue collaborating with each other to find a common solution for the revision of MSC.1/Circ.1572/Rev.1 and submit proposals to a future session of the Sub-Committee, as appropriate.

### Access to ballast tanks

Industry NGOs proposed an interpretation requiring two access hatchways for ballast tanks less than 35m in length if the tank was subdivided by a partial bulkhead, web frames or double bottom floors. A Member State pointed out that having two access hatches would not resolve the problem unless each hatch locates the other end of the barrier. SDC 8 did not agree on the interpretation.

### Onboard noise

There was a proposed interpretation to clarify the application of the noise limit of 85 dB(A) to workshops other than those forming part of machinery spaces.

"workshops other than those forming part of machinery spaces" should be workshops which are separated from the engine-room with bulkheads extending from deck to deck, which may include access doors of the equivalent acoustic insulating

properties as the bulkhead. Workbenches and workstations located inside the machinery space should not be considered as "workshops other than those forming part of machinery spaces".

SDC 8 agreed to remove "deck to deck" and forward the interpretation to MSC 105 for approval as a draft MSC Circular.

## ANY OTHER BUSINESS

### **Maintenance of the Revised guidance on shipboard towing and mooring equipment (MSC.1/Circ.1175/Rev.1)**

IACS informed the Sub-Committee of the recent revisions to IACS Unified Requirement (UR) A1 and UR A2 and Recommendation No. 10, their background and, as a consequence, proposes the further revision of the guidance on shipboard towing and mooring equipment (MSC.1/Circ.1175/Rev.1).

Due to time constraints, SDC requested IACS to submit a new work program proposal to MSC with a cosponsoring State.

### **HFO Ban in the Arctic**

The IMO Secretariat updated the outcome of the PPR 8.

The key discussion was the bottom clearance of the fuel tank (760mm protection zone).

While there was general agreement that the bottom plate should also be protected, SDC 8 was not conclusive. In addition, there were issues on protection for ships constructed prior to the entry into force of MARPOL Annex I regulation 12A (Aug 2010).

The matter was deferred to SDC 9 for further discussion.

### **SOLAS chapter XII and revision of associated unified interpretations**

The IMO Secretariat advised SDC 8 that the Maritime Safety Committee (MSC), at its 103rd session, considered document the proposal on the amendments to SOLAS chapter XII (Additional safety measures for bulk carriers) and a revision of the unified interpretations of SOLAS regulations XII/4.2 and XII/5.2 (MSC/Circ.1178) in order to close gaps in these regulations that were identified during the flag State's marine safety investigation of the loss of MV Stellar Daisy.

Opinions at SDC 8 were:

- Agreed on the work but proposed not apply to existing ships.
- Questioning that Stella Daisey was the converted VLOC and there were only two in service thus asked the reason for expanding the requirements to all bulk carriers.

SDC 8 deferred the discussion to SDC 9 for careful discussion and invited members to work together toward SDC 9.

## Further information

For further information please contact: [imo@lisr.com](mailto:imo@lisr.com).

## SDC 8 – Summary of Major Decisions

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### PROVISIONAL LIST OF DRAFT RESOLUTIONS AND CIRCULARS

- New SOLAS Chapter XV and the IP code
- Draft explanatory notes to the Interim guidelines on the second-generation intact stability criteria Explanatory note
- Draft amendment to the 2011 ESP Code (both Annex A (bulk carriers) and Annex B (oil tankers))
- Draft revised unified interpretation regarding timber deck cargo in the context of damage stability requirements (MSC/Circ.998)
- Draft unified interpretation of paragraph 4.2.1 to the annex of the Code on noise levels on board ships (resolution MSC.337(91))
- Draft unified interpretation of regulation 37(3) of the 1988 Load Lines Protocol and prepared the consequential draft amendments to MSC.1/Circ.1535/Rev.1 (Unified interpretations relating to the Protocol of 1988 relating to the International Convention on Load Lines, 1966 (MSC.1/Circ.1535))
- Draft unified interpretation of SOLAS regulations II-1/5.4 and II-1/5.5 relating to amendment to stability/loading information in conjunction with the alterations of lightweight
- Draft MSC resolution on Performance standards for water level detectors on ships subject to SOLAS regulations II-1/25, II-1/25-1 and XII/12 (resolution MSC.188(79)/Rev.1)

Note: the above draft will be submitted to MSC 105 (April 2022) for approval/adoption and so are yet to be numbered.