



**The 10<sup>th</sup> session of Sub-committee on Ship Design and Construction (hereinafter referred to as SDC) was convened at IMO Headquarters from 22<sup>th</sup> to 26<sup>th</sup> January 2024. This news flash briefs on the outcomes of SDC 10 on major technical issues.**

### **1. Development of Guidelines for emergency towing arrangements (ETA) for ships other than tankers (Agenda 3)**

SDC established an Expert Group to discuss and develop the Guidelines for emergency towing arrangements for ships other than tankers, taking into account the strength requirements for the main components of the towing system, prototype testing procedures, and design flexibility.

During the discussions on the development of guidelines, SDC also identified specific guideline documents that need suitable revisions in relation to the development of guidelines for emergency towing arrangements for ships other than tankers.

- Guidelines for owners/operators on preparing emergency towing procedures (MSC.1/Circ.1255)
- Revised guidance on shipboard towing and mooring equipment (MSC.1/Circ.1175/Rev.1)

In the end, SDC was unable to complete the development of the guidelines at this session and agreed to continue the discussion at the next session (SDC11). (Due to a limited number of intersessional correspondence groups within SDC, the establishment of a correspondence group to continue developing guidelines for emergency towing arrangements was not approved.)

Specifically, to determine the strength requirements of emergency towing elements considering the size of the vessels, interested Member States and international organizations are requested to submit relevant data by the next session.

### **2. Review of the Guidelines for the reduction of Underwater Radiated Noise from shipping to address adverse impacts on marine life and identification of next steps (Agenda 5)**

SDC established a Working Group to discuss a draft Action Plan to further prevent and reduce underwater radiated noise (URN) from ships, with the aim of minimizing its adverse effects on the marine environment, particularly on marine wildlife and indigenous communities.

SDC agreed on the draft Action Plan, which outlines overall tasks for implementation by relevant organs and bodies, including:

- Establish an Experience-Building Phase (EBP) for the Revised Guidelines;
- Enhance public awareness, education, and seafarer training;
- Standardize URN Management Planning process;

- Develop URN Targets;
- Further develop policy for URN reduction;
- Create IMO processes/technical groups to share information and take into consideration other IMO regulatory goals;
- Develop tools to collect data and share information;
- Encourage research on URN and GHG/URN and biofouling management;
- Encourage research on impacts of URN on species and habitats; and
- Proposed change of output title and introducing an Experience Building Phase.

SDC agreed to have a three-year Experience-Building Phase until 2026 (with a possibility of extension of up to two years) for Member States and international organizations to share gained data and best practices from the implementation of the revised Guidelines. The draft Action plan will be submitted to MEPC 81 for endorsement.

In addition, regarding the URN planning reference chart, SDC agreed on draft amendments to the revised Guidelines for the reduction of underwater radiated noise from shipping. SDC will submit draft Guidelines for approval at MEPC 82.

### 3. Amendments to the 2011 ESP Code (Agenda 6)

SDC discussed amendments to the Code on Enhanced Survey Programme (2011 ESP Code) applicable to bulk carriers and oil tankers to use Remote Inspection Technology (RIT) for close-up survey.

After discussion, it was agreed in principle to IACS' proposal to use the remote inspection technology for close-up survey. However, it was emphasized that this application shouldn't be restricted solely to bulk carriers and tankers under the ESP Code. Moreover, concerns were raised regarding the lack of technical specifications in the proposed amendment and potential oversight factors, highlighting the necessity for further refinement.

Finally, SDC decided to establish an intersessional correspondence group to take a holistic approach to the use of remote inspection technology and to undertake associated tasks, taking into account the limitations/conditions of the use of remote inspection technology and the necessity for developing technical guidelines.

### 4. Safety objectives and functional requirements of the Guidelines on alternative design and arrangements for SOLAS chapter II-1 (Agenda 7)

SDC established a Working Group to identify the failure mode and hazard list of Part C (Machinery Installations) and Part E (Additional requirements for periodically unattended machinery spaces) of SOLAS Chapter II-1 and to finalized the functional requirements and expected performances for Part C (Machinery Installations), Part D (Electrical installations) and Part E (Additional requirements for periodically unattended machinery spaces) of SOLAS Chapter II-1, based on IMO Goal Based Standard (GBS) (MSC.1/Circ.1394).

Finally, SDC agreed on the draft amendments to the Guidelines on alternative design and arrangements for

SOLAS chapters II-1 and III (MSC.1/Circ.1212/Rev.1). However, it should be noted that the amendments for SOLAS II-1/28~30 (Part C) and V/25 and 26 are currently under discussion as agenda item 8 of this session of SDC, and in accordance with the results of discussion, relevant Guidelines will be further revised in the next session (SDC11).

The draft amendments will be submitted to the MSC 108 for approval.

### **5. Revision of SOLAS chapter II-1 (Part C) and V, and related instruments regarding steering and propulsion requirements, to address both traditional and non-traditional propulsion and steering systems (Agenda 8)**

SDC commenced work towards developing goal-based SOLAS regulations to accommodate both traditional and non-traditional propulsion and steering systems, taking into account the document MSC105/18/1.

SDC established a Working Group to prepare the draft amendments to develop draft amendments to SOLAS regulations II-1/3 and 28 to 30, and V/25 and 26 including requirements concerning the capability of going astern and stopping of ships.

However, SDC was unable to finalize developing the draft amendments to SOLAS regulations II-1/ 28 to 30, as well as associated guidelines, and agreed to establish the Correspondence Group for further development of the draft amendments.

### **6. Amendments to the Guidelines for construction, installation, maintenance and inspection/survey of means of embarkation and disembarkation (MSC.1/Circ.1331) concerning the rigging of netting on accommodation ladders and gangways (Item 9)**

SDC established a Draft Group to discuss the draft amendments to the Guidelines for construction, installation, maintenance, and inspection/survey of means of embarkation and disembarkation (MSC.1/Circ.1331) including the rigging of netting on accommodation ladders and gangways, taking into account the followings.

- Application provision of the Guidelines
- Implementation date of ISO standards
- Provision for side net
- Definition for safety net

SDC prepared the draft revised Guidelines regarding Implementation of new ISO international standards and agreed that those Guidelines will apply to equipment installed on or after 1 July 2026 defined as below.

- Ships for which the building contract is placed on or after 1 July 2026, or in the absence of the contract, the keels of which are laid or which are at a similar stage of construction on or after 1 July 2026; or
- Ships other than those ships prescribed in above, a contractual delivery date for the equipment or, in the absence of a contractual delivery date, the actual delivery date of the equipment to the ship on or after 1 July 2026

However, SDC was unable to finalize the draft amendments regarding the implementation of new and old ISO standards and the decision was made to continue the discussion on this matter during the next session(SDC 11).

## 7. Unified interpretation of provision of IMO safety, security, and environment-related conventions (Item 10)

SDC agreed with the proposed unified interpretations to ensure consistent application in cases where the regulations' intent is unclear, which will be submitted for approval at MSC 108.

- Draft amendments to Unified Interpretation of the Code on noise levels on board ships on calibration of sound instruments (resolution MSC.337(91))  
: to clarify application of standard (IEC 61672-3:2013) for the calibration of the sound level meter and its field calibrator. This unified interpretation for sound level meters and calibrators shall be applied at their next calibration due date, not later than two years after the date of approval of the unified interpretation.
- Draft revised Unified Interpretation of the performance standards for water level detectors on bulk carriers and single hold cargo ships other than bulk carriers (Resolution MSC.188(79)) (MSC.1/Circ.1572/Rev.1)  
: to align with the consequential to the adoption of resolution MSC.188(79)/Rev.2.
- Draft new Unified Interpretation on the harmonization of the Industrial Personnel Safety Certificate with SOLAS safety certificates  
: to clarify how to harmonize the Industrial Personnel Safety Certificate with various SOLAS safety certificates when their validity or their endorsement differ, with a view towards universal and uniform implementation.
- Draft amendments to Unified interpretations of SOLAS regulations II-2/9 and II-2/13(MSC.1/Circ.1511)  
: to clarify the term "safe position" used in connection with means of escape from machinery spaces.
- Draft amendments to Unified interpretations of SOLAS regulation II-1/3-6(MSC.1/Circ.1572/Rev.1)  
: to improve the uniform implementation regarding the interval of inspections of means of access (to be carried out by the crew or competent inspectors).

## 8. Amendments to regulation 25 of the 1988 Load Line Protocol regarding the requirement for setting guard rails on the deck (Item 11)

SDC established a Draft Group to discuss a document SDC 10/11(China) proposing amendments to regulation 25 of the 1988 Load Line Protocol regarding the requirement for setting guard rails on the deck in order to unify the number of course of guard rails on all exposed decks, clarify the application location of guard rails such as edges of moonpools, and provides the criteria for limiting excessive sag of chains.

Following the discussion, SDC tentatively agreed to draft amendments, incorporating provisions for implementation based on the keel laying date. These draft amendments will be submitted to MSC 108 for approval.

However, SDC was unable to finalize the discussions on the appropriate criteria of “sag of chains” and decided to retain the original proposal (a limit of 50mm for sag of chains). SDC therefore invited interested Member States and international organizations to submit further proposals on this matter to MSC 108.

## 9. Guidelines for use of Fiber-Reinforced Plastics (FRP) within ship structures (Item 12)

Referring to a report presenting the latest advancements in R&D on the use of Fiber Reinforced Plastic (FRP) elements, SDC discussed documents proposing to discuss the technical matters concerning the revision of the Interim guidelines, potential conflict with SOLAS using FRPs in ship structures and further considering fire performance criteria for FRPs.

During the discussion, SDC agreed that the scope of the output should not be expanded, and revised interim guidelines that would contradict current SOLAS provisions, as per the current instructions for this output, should not be developed.

Subsequently, SDC agreed to establish the correspondence group in order to review and revise the Interim guidelines for use of FRP (MSC.1/Circ.1574).

## 10. Revision of the interim explanatory notes for the assessment of passenger ship systems capabilities after a fire or flooding casualty (MSC.1/Circ.1369) and related circulars (Item 13)

SDC progressed its work to revise the Interim Explanatory Notes for the assessment of passenger ship capabilities after a fire or flooding casualty (MSC.1/Circ.1369) and related circulars, taking into account more than a decade of advancement in technology and design, and relevant industry standards.

Based on the report of the intersessional correspondence group, a Working Group was established for detailed discussions. As a result of the discussion, the draft for new structure and new interpretation were prepared for the “Interim Explanatory Notes for the assessment of passenger ship capabilities after a fire or flooding casualty (MSC.1/Circ.1369)”.

SDC agreed on the draft amendments for the Interim Explanatory Notes (MSC.1/Circ.1369) and re-established the Correspondence Group to assess and further develop the text, as appropriate, taking into account industry standards and the experience gained from applying the relevant regulations. The report will be submitted to SDC11.

## 11. Any other business (Item 16)

### 11.1 Experiences gained on the use of the interim guidelines on the second-generation intact stability criteria (MSC.1/Circ.1627)

SDC reviewed a document SDC 10/16 (Denmark and WSC), which reports on the calculations made for the container ship *MAERSK ESSEN* \* applying the second-generation intact stability criteria considering its

container loss and which proposes that SDC consider whether a comprehensive review of MSC.1/Circ.1627 is needed to evaluate the correctness of the calculations for parametric roll analysis.

\* Container ship "MAERSK ESSEN" encountered an incident where 689 containers were lost, and 258 containers were damaged amid severe rolling, reaching approximately 25 to 30 degrees in January 2021,

After discussion, SDC concluded that it was premature to revise the Interim Guidelines and that more data and experience in their application would be needed. In that context, SDC reiterated the request to Member States and international organizations to submit reports and studies on the matter to future sessions.

## 11.2 Challenges in designing ships for alternative fuels

SDC reviewed document SDC 10/16/1 (Saudi Arabia), which addresses challenges in ship design for alternative fuels and suggests initiating a thorough and inclusive discussion to address these issues.

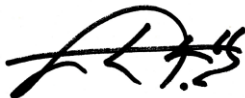
SDC agreed to refer this document to MSC 108 for consideration under MSC's new output on "Development of a safety regulatory framework to support the reduction of GHG emissions from ships using new technologies and alternative fuels".

## 11.3 Vessels under 500 GT operating in Arctic waters

SDC reviewed document SDC 10/16/2 (WWF), which reports on the results of an analysis of PAME Arctic Ship Traffic Data, provides the number and types of ships under 500 gross tonnage operating in Arctic waters, and proposes to address the outstanding work by developing guidelines for commercial yachts and cargo ships of 300 gross tonnage and upwards and less than 500 gross tonnage operating in polar waters.

Subsequently, SDC invited WWF and interested Member States to submit a proposal to the MSC Committee requesting to lift the output from the post-biennial agenda to the provisional agenda of SDC.

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



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