



The 11<sup>th</sup> session of Sub-committee on Ship Design and Construction (hereinafter referred to as SDC) was convened at IMO Headquarters from 13<sup>th</sup> to 17<sup>th</sup> January 2025. This news flash briefs on the outcomes of SDC 11 on major technical issues.

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



Regarding the development of guidelines for emergency towing arrangements on non-tanker ships, SDC 11 discussed the strength criteria for the components of emergency towing arrangements, which were not completed in the previous SDC 10. Based on the submitted documents, it was decided to develop these criteria as 'interim' guidelines, considering the lack of sufficient application experience. A drafting group was established to develop detailed guidelines, and the following points were agreed upon:

- Added content related to the time required for the deployment of emergency towing arrangements on non-tanker ships.
- Added content classifying the towing loads required for the components of emergency towing arrangements using the ship's equipment number (EN).

Ship with Equipment Number (EN)	Minimum working strength
EN < 3,000	1,000
3,000 ≤ EN < 10,000	2,000
EN ≥ 10,000	0.2 x EN or higher (Depending on the flag state's decision).

- Completed the draft amendments to MSC.1/Circ.1175/Rev.1 and MSC.1/Circ.1255, identified as needing revision in SDC 10.

After discussions, the following guidelines were developed or revised and will be submitted for approval at MSC 110:

- 1) Development of interim guidelines for emergency towing arrangements on non-tanker ships.
- 2) Draft amendment to guidance on shipboard towing and mooring equipment (MSC.1/Circ.1175/Rev.1)
- 3) Draft amendment to guidelines for owner/operators on preparing emergency towing procedures (MSC.1/Circ.1255).

If these guidelines are approved, the amendments to SOLAS Reg.II-1/3-4 regarding emergency towing arrangements for non-tanker ships of 20,000 GT and above, adopted at MSC 108, will entry into force on January 1, 2028, based on the construction date.

## 2. Further development of the IP Code and associated guidance (Agenda 4)

Discussions were held regarding a proposed revision to incorporate the same requirements specified in Reg.2 of Part V into Part IV of the IP Code, in order to plan future work for the further development of the IP Code and relevant guidelines, and to ensure consistent application of industry personnel weight standards during stability calculations.



- Regarding the weight criteria for industrial personnel in stability calculations, a draft group was established for discussions. It was agreed to apply the weight criteria for industrial personnel consistently in Part IV of the IP Code, as specified in Part V, Reg.2 (90 kg). The draft amendment was agreed upon and will be submitted to the MSC for approval.

### Draft amendments to IP Code, Part IV

#### Regulation 2 - Subdivision and stability

2.1 In order to meet the functional requirement set out in paragraph II/3.2, the following applies:

- .7 The mass of each industrial personnel shall be assumed to be 90 kg instead of 75 kg in the ship stability calculation, for ships:
  - .1 for which the building contract is placed on or after [date of entry into force]; or
  - .2 in the absence of a building contract, the keel of which is laid or which is at a similar stage of construction on or after [date of entry into force + 6 months]; or
  - .3 the delivery of which is on or after [date of entry into force + 4 years].

- Regarding the future work plan for the further development of the IP Code and related guidelines, it was decided in this session to conclude related discussions in the SDC until sufficient implementation experience is accumulated, as the IP Code has only been in effect since July 1, 2024. This decision will be reported to the MSC.

## 3. 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 (Agenda 5)

Based on the terms of references from SDC 10, an intersessional correspondence group was established to discuss amendments to the structure and content of MSC.1/Circ.1369, which provides interim explanatory notes for the assessment of passenger ship systems' capabilities after fire and flooding incidents. Accordingly, SDC 11 established a working group during the session to conduct detailed discussions based on the report of correspondence group and submitted documents.

During this session, detailed discussions were held on the following points regarding the amendments to the interim explanatory notes, but due to time constraints, the development of the amendments was not completed. It was agreed to establish an intersessional correspondence group for further discussions.

- SDC 11 agreed that the interim explanatory notes should include matters related to ship operation, such as crew training. Noting the need for a review of the STCW Convention after the completion of the amendments to the interim explanatory notes by the SDC, it was agreed that the HTW sub-Committee<sup>1</sup> should conduct this review. Additionally, it was agreed that the III sub-Committee<sup>2</sup> should review the regulations for verifying compliance with 'Safe Return to Port (SRtP)' by attending surveyors during the survey for the passenger ships. The intersessional correspondence group was tasked with preparing the information to be provided to each Sub-Committees by terms of references.

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

At SDC 11, a working group was established to discuss amendments to the 2011 ESP Code and the development of guidelines to allow the use of remote inspection technology (RIT) based on the report of the correspondence group.

- In the working group during SDC 11, a draft amendment to the 2011 ESP Code was developed to allow the use of RIT for close-up surveys of existing bulk carriers and oil tankers. This includes relevant definitions, requirements for the use of RIT, and procedures for the approval of specialized service suppliers. The related amendments are expected to be approved at MSC 110 (May 2025) and adopted at MSC 111 (June 2026), entry into force on January 1, 2028.
- Due to time constraints, the guidelines for allowing the use of RIT will be discussed in an intersessional correspondence group (CG) after SDC 11.
- It was agreed to amend MSC.1/Circ.1502 (Guidelines for the pressure testing of cargo oil tank boundaries under the direction of the master) to align with the revised 2011 ESP Code as per Res.MSC.525(106), and the amendment will be submitted to the MSC for approval.

#### 5. 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 safety netting on accommodation ladders and gangways (Agenda 7)



SDC 11 conducted further review of the draft amendment to the guidelines for the construction, installation, maintenance, and inspection of means of embarkation and disembarkation (MSC.1/Circ.1331), which was not completed at SDC 10 due to time constraints. In particular, documents submitted regarding the need for amendments related to the application of ISO standards, identified from the discussions at SDC 10, were reviewed, and the following points were agreed upon:

<sup>1</sup> Sub-Committee on Human Element, Training and Watchkeeping

<sup>2</sup> Sub-Committee on Implementation of IMO Instruments

- The draft amendment to MSC.1/Circ.1331 specifically adds the phrase "installed on or after July 1, 2026," and develops a draft amendment that clearly distinguishes the applicable ISO standards based on the ship's construction date and the installation date of accommodation ladders, gangways, and accommodation ladder winches, as shown in the table below.

Accommodation ladders and gangways	Installed before July 1, 2026	Installed on or after July 1, 2026
Constructed before Jan 1, 2010	In so far as is reasonable and practicable, comply with guidelines	ISO 5488:1979 or 5488:2015
		ISO 7061:1993 or 7061:2015 or 7061:2024
Constructed on or after Jan 1, 2010	ISO 5488:1979	ISO 5488:2015
	ISO 7061:1993	ISO 7061:2015 or 7061:2024

Accommodation ladder winches	Installed before July 1, 2026	Installed on or after July 1, 2026
Constructed before Jan 1, 2010	In so far as is reasonable and practicable, comply with guidelines	ISO 7364:1983 or 7364:2016
Constructed on or after Jan 1, 2010	ISO 7364:1983	ISO 7364:2016

The final amendment of the guidelines, including the following amendments decided at SDC 10, will be submitted for approval at MSC 110 and, if approved by MSC, will replace the existing guidelines.

- 1) Amendments agreed upon SDC 10 :
  - Safety measures for the installation of safety nets for accommodation ladders and gangways.
  - Alternative safety measures to replace safety nets.
  - Guidelines for the inspection and maintenance of safety nets.
  - Regular testing of accommodation ladders, gangways, and accommodation ladder winches.
- 2) Standards for equipment installed on or after July 1, 2026:
  - Ships for which the building contract is placed on or after July 1, 2026; or in the absence of a building contract, ships for which the keel is laid or which are at a similar stage of construction on or after July 1, 2026.
  - For ships other than those specified above, the delivery date of the equipment contract, or in the absence of a contract delivery date, the actual delivery date of the equipment to the ship on or after July 1, 2026.

**6. Revision of SOLAS chapters 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)**

At SDC 10, discussions were held on amending SOLAS Reg.II-1/28-30 and related IMO instruments, but no consensus was reached in the direction of the amendments. Therefore, a working group during SDC 10 was established for further discussions regarding the related matters. However, even in the working group, no consensus was reached on the application of SOLAS concerning traditional and non-traditional propulsion and steering methods, and the mandatory application of maneuvering performance criteria.

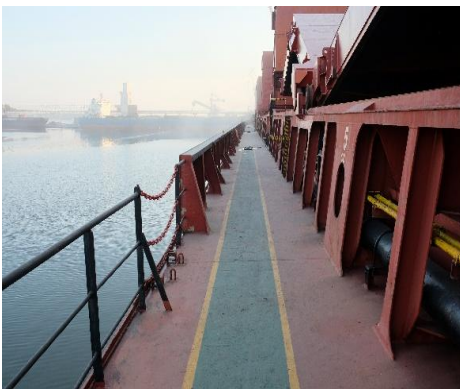
In this regard, an intersessional working group was established for further discussions. However, differences of opinion still existed, and no consensus was reached. The report from the correspondence group summarizing the results of the discussions in the intersessional working group was submitted to SDC 11.

SDC 11 established an expert working group to determine the direction of amendments to Reg.II-1/28-30 regulations and related IMO instruments. Based on the report of the correspondence group and the agenda documents, the following points were discussed during SDC 11:

- The applicability, ship maneuvering performance criteria, failure tolerance of steering systems, details related to ships with single/multiple steering systems, and consistency with SRtP regulations for passenger ships as described in the draft of SOLAS Reg.II-1/28-1 and II-1/29-1.
- Identification of the need to amend related IMO instruments (Res.MSC.137(76)<sup>3</sup>, Res.A.467(XII)<sup>4</sup>, Res.A.601(15)<sup>5</sup>, Res.MSC.64(67)<sup>6</sup>, MSC.1/Circ.1053<sup>7</sup>, MSC.1/Circ.1536<sup>8</sup>) following the amendments to existing SOLAS regulations, and development of draft amendments if necessary.

During the discussions, SDC 11 determined to request MSC 110 to extend the target completion year from 2025 to 2028 to ensure the new SOLAS regulations entry into force on 2032, considering the significant technical review required for the amendments to SOLAS Chapter II-1 (Part C) and Chapter V, and other related IMO instruments.

## 7. Amendment to regulation 25 of the 1988 Load Line Protocol regarding the requirement for setting of guard rails on the deck structure (Agenda 9)



The agreement was reached on the amendment to Reg.25 of the 1988 Protocol of the International Load Line Convention discussed at SDC 10. However, due to time constraints, the discussion on the appropriate sag criteria for chains provided as alternatives for guardrails was not completed. Therefore, SDC 11 considered the agenda documents containing the opinions on sag of chains and continued the discussion on Reg.25(3)(d) of the 1988 Protocol of the International Load Line Convention. And SDC 11 agreed to add a phrase to the end of the captioned regulation stating that "which shall be tightened as much as reasonably practicable and shall be detachable".

<sup>3</sup> Res.MSC.137(76), STANDARDS FOR SHIP MANOEUVRABILITY

<sup>4</sup> Res.A.467(XII), GUIDELINES FOR ACCEPTANCE OF NON-DUPLICATED RUDDER ACTUATORS FOR TANKERS, CHEMICAL TANKERS AND GAS CARRIERS OF 10,000 TONS GROSS TONNAGE AND ABOVE BUT LESS THAN 100,000 TONNES DEADWEIGHT

<sup>5</sup> Res.A.601(15), PROVISION AND DISPLAY OF MANOEUVRING INFORMATION ON BOARD SHIPS

<sup>6</sup> Res.MSC.64(67), ADOPTION OF NEW AMENDED PERFORMANCE STANDARDS

<sup>7</sup> MSC.1/Circ.1053, EXPLANATORY NOTES TO THE STANDARDS FOR SHIP MANOEUVRABILITY

<sup>8</sup> MSC.1/Circ.1536, UNIFIED INTERPRETATIONS OF SOLAS REGULATIONS II-1/29.3 AND II-1/29.4

Original text	Agreed amendments
(d) where necessary for the normal operation of the ship, chains fitted between two fixed stanchions and/or bulwarks are acceptable in lieu of guard rails	(d) where necessary for the normal operation of the ship, chains fitted between two fixed stanchions and/or bulwarks are acceptable in lieu of guard rails, <b>which shall be tightened as much as reasonably practicable and shall be detachable.</b>

Including the following amendments decided at SDC 10, the proposed amendments to the convention will be submitted for approval at MSC 110 and for adoption at MSC 111:

- Addition of regulations for the installation of guardrails or bulwarks around openings directly connected to the sea, such as moonpools.
- Uniform application of three rows of bars for guardrails on all exposed decks, instead of two or three rows of bars.

If finally adopted by MSC Committee, these amendments will apply to all new ships of 24 meters in length and above engaged in international voyages, with a keel laying date on or after January 1, 2028.

## 8. Unified interpretation of provisions of IMO safety, security, environment, facilitation, liability and compensation-related conventions (Agenda 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 110.

### *(1) Draft new Unified Interpretation regarding remotely controlled collision bulkhead valves:*

SOLAS II-1 Reg.12.6.2 states that the pipe for discharging ballast water from the forepeak tank must be single, and the 'remotely controlled valve' controlling the opening and closing of this pipe must be 'capable of being operated from above the bulkhead deck of passenger ships and the freeboard deck of cargo ships.'

Regarding this regulation, it was identified that there could be various interpretations: ① whether it could be interpreted in a complementary, to be controlled by mechanical means such as manual or hydraulic, etc or ② whether it could be interpreted separately, to be controlled by a mechanical means according to a remote control system using hydraulics, etc. Therefore, IACS explained that the 'remote control valve' presented in SOLAS Reg.II-1/12.6.2 should be interpreted in a complementary manner and provided acceptable arrangements.

SDC 11 agreed that the proposed unified interpretation meets the 'Three Safeguards'<sup>9</sup> (Criteria that the unified interpretation must satisfy, agreed upon at MSC 108) and will submit it for approval at MSC 110.

### *(2) Proposal regarding revision of Unified Interpretation of SOLAS Reg.II-2/9 and 13*

<sup>9</sup> 1) UIs were not meant to amend mandatory requirements in Conventions and associated instruments;  
2) UIs should not go beyond the interpretation of requirements; and  
3) UIs should not contradict the text of requirements;

Regarding the term 'lower part' used in SOLAS Reg.II-2/13.4.1 (passenger ships) and 13.4.2 (cargo ships) for machinery spaces, SOLAS does not clearly define it. Therefore, IACS submitted a unified interpretation, MSC.1/Circ.1511, to MSC 95 to clarify this definition, and it was adopted.

During the development of the unified interpretation, IACS indicated that part of the escape trunk in the machinery spaces should lead razing from the lowest deck to the platform or passageway above it. However, it was identified that some stakeholders interpret the unified interpretation differently, considering that the escape trunk should start directly from the lowest deck, platform, or passageway, whichever is lowest.

To clarify any ambiguities in understanding the unified interpretation, IACS proposed an amendment allowing the escape trunk to start within a range of up to 2.3 meters above the lowest deck.

SDC 11 pointed out that the proposed amendment to the unified interpretation goes beyond the interpretation of the requirements of SOLAS and does not meet the 'Three Safeguards,' thus it was not supported. However, it was identified that there is a need to provide a clear perspective on MSC.1/Circ.1511/Rev.1. Therefore, the opinions of member states and international organizations participating in this session were summarized as follows:

- It was confirmed that the 'lower part' should be regarded as either the lowest deck level, platform, or passageway.
- It was noted that the majority of the delegations which intervened had agreed that the UI was not intended to be understood as “whichever is lowest” of the lowest deck level, platform or passageway; and
- It was invited III 11 to consider the outcome of the discussion, which raised the question of rightful flag States' interpretations of mandatory provisions being potentially challenged by PSC officers, as appropriate, regarding the need for potential guidance in the context of the harmonization of PSC activities.

### ***(3) Proposal to delete IACS Unified Interpretations SC 4 and 5:***

Unified Interpretations SC 4 and 5 were adopted and used to interpret the term 'all internal communication equipment' as used in SOLAS Reg.II-1/42.2.3.1 and 42.2.4.1. However, since the adoption of these unified interpretations in 1985, new regulations addressing various emergency situations on passenger ships have been introduced, leading to amendments in the related regulations. These amendments have improved the understanding of emergency situations. Consequently, as equipment can now operate without relying solely on emergency power during emergencies, IACS reported the deletion of Unified Interpretations SC 4 and 5, explaining that they are no longer necessary.

## **9. Guidelines for use of Fibre-Reinforced Plastics (FRP) within ship structures (Agenda 11)**

SDC 10 began discussions on revising the interim guidelines (MSC.1/Circ.1574) for the use of fiber-reinforced plastic (FRP) in ship structures, specifically addressing potential issues related to fire safety and recycling. An intersessional working group was established for further discussions.

SDC 11 referred to the report of the previous intersessional working group and the submitted agenda documents to discuss the scope of the revisions to the FRP interim guidelines and the need to revise related documents. During the discussions, there were many opinions on the need to include load-bearing divisions and elements contributing to global strength within the scope of the guidelines' revisions. However, it was clarified that this would be considered an expansion of the scope of work, which requires committee approval. Interested member states and international organizations were encouraged to submit their proposals for the revisions to the FRP interim guidelines to MSC 110.

SDC 11 agreed to establish an intersessional working group to continue discussions on unresolved issues, such as fire safety and recycling, and to extend the target completion year for the revision of the interim guidelines to 2026, requesting approval from MSC 110.

## 10. Review of the 2009 Code on Alerts and Indicators (Agenda 12)

SDC 11 was requested to take revision actions if any inconsistencies or contradictions were identified between the 2009 Code on Alerts and Indicators and newly developed, adopted, or amended international conventions since the Code's adoption. Accordingly, SDC 11 discussed this matter in the working group, referring to documents submitted by member states and international organizations.

In particular, during the discussions, it was agreed to update and expand the following new guidelines in the 2009 Code on Alerts and Indicators:



- Guidelines for Exhaust Gas Cleaning Systems (EGCS) (MEPC.340(77))
- International Ship and Port Facility Security (ISPS) Code
- Code for Approval of Ballast Water Management Systems (BWMS Code, Res.MEPC.300(72))
- International Code for the Safety of Ships Carrying Industrial Personnel (IP Code)
- International Code of Safety for Ships using Gases or other Low-flashpoint Fuels (IGF Code)

The amendments to the 2009 Code on Alerts and Indicators completed by the working group will be submitted for approval at MSC 110 and MEPC 83, and for adoption at A 34. Additionally, the working group discussed methods to maintain the Code's updates in line with the continuous revisions of IMO documents, and SDC 11 agreed to update it regularly.

## 11. Experience-building phase for the reduction of underwater radiated noise from shipping (Agenda 15)

According to the recommendation of SDC 10, MEPC 82 considered assigning the agenda on reducing underwater radiated noise from ships to MEPC 85. Due to the heavy workload of future sessions and the limited number of working/drafting groups that can be established, MEPC 82 agreed on the following:



- Adopt this agenda as a provisional agenda for SDC 11 and 12, and request member states, international organizations, and the secretariat to submit documents detailing technical aspects related to the experience- building phase and underwater radiated noise mitigation plans.
- Include matters requiring committee-level decisions, as requested by member states, international organizations, or the SDC, in MEPC 83, 84, and 85.

In this regard, SDC 11 reviewed the documents related to reducing underwater radiated noise submitted to MEPC 82 and those submitted for this session. It was confirmed that further discussions need to be conducted intersessionally, and it was agreed to establish an intersessional working group to continue discussions considering the following:

- Review and develop the next steps for the technical objectives of the action plan to reduce underwater radiated noise.
- Develop a framework to assess the progress of applying and utilizing the revised guidelines for measuring underwater radiated noise, and create a shared database and other resources for the results of the experience-building phase.
- Select and evaluate studies on underwater radiated noise emissions from the marine sector, discuss knowledge gaps, and integrate relevant findings/results.
- In cooperation with the secretariat, prepare the draft terms of reference for studies addressing identified knowledge gaps.

Additionally, SDC 11 encouraged interested member states and international organizations to submit necessary information or research results related to this agenda.

## 12. Any other business (Agenda 16)

### *(1) Proposal regarding inconsistent implementation of Res.MSC.158(78) and the 2011 ESP Code concerning access to side shell frame of single-side skin bulk carriers:*

2011 ESP Code specifies the means of access for the close-up inspection of side shell frames in the cargo holds of single-side skin bulk carriers. Similarly, SOLAS Reg.II-1/3-6 and Res.MSC.158(78) also specify related requirements. However, inconsistencies between these two regulations have been identified, which may cause confusion in the industry. Therefore, an amendment to Res.MSC.158(78) has been proposed to address this issue.

Specifically, when only SOLAS Reg.II-1/3-6 and Res.MSC.158(78) were applicable to ships, there were no provisions for portable ladders as a means of access for inspecting side shell frames in the cargo holds, and inspections were conducted according to the relevant guidelines (Res.A.744(18)), ensuring consistent application.

However, after these guidelines were superseded by the 2011 ESP Code, which added provisions for portable ladders, inconsistencies arose between Res.MSC.158(78) and the Code. Therefore, it has been proposed to amend the provisions related to portable ladders in Res.MSC.158(78) to harmonize them with the 2011 ESP Code.

SDC 11 acknowledged the existence of inconsistent regulations between the 2011 ESP Code and Res.MSC.158(78), but considered this proposal beyond the scope of work decided by MSC, and decided to request further review by the committee.

*(2) Experience with the Interim Guidelines for Second Generation Intact Stability Criteria:*

As requested by SDC 10, Denmark submitted an information document (SDC 11/INF.3) detailing specific calculations related to the container loss incident on the 'MAERSK ESSEN'. Denmark requested that SDC 11 notify the next CCC sub-committee dealing with the agenda related to container loss.

SDC 11 requested interested member states and international organizations to submit a new output to the committee proposing the revision of MSC.1/Circ.1627 (Interim guidelines on the second-generation intact stability criteria) and MSC.1/Circ.1652 (Explanatory notes to the interim guidelines on the second-generation intact stability criteria). Additionally, SDC 11 agreed to request CCC 11 to consider this document under the agenda item 'Development of measures to prevent container loss at sea'.

Similar to the request made by SDC 10, SDC 11 also encouraged member states and international organizations to submit reports or research results related to this agenda.

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



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