



Technical Information

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To : All BKI Customers

Subject : Summary Report of IMO Meetings of Sub-Committee on Ship Design and Construction (SDC) 3rd session

Summary

This Technical Information summarizes the 3rd Session of the IMO Sub-Committee on Ship Design and Construction (CCC) held from 18 to 22 January 2016, at the IMO headquarters in London.

Information

1. The following several agenda were discussed during SDC 3 meeting which have relevance with the work of BKI:

Agenda Number	Topic
3	Amendments to SOLAS Regulations II-1/6 and II-1/8-1
4	Computerized Stability Support for the Master in Case of Flooding for Existing Passenger Ships
5	Guidelines on Safe Return to Port for Passenger Ships
6	Finalization of Second-Generation Intact Stability Criteria
7	Amendments to Part B of the 2008 IS Code on Towing, Lifting and Anchor Handling Operations
8	Amendments to SOLAS And FSS Code to Make Evacuation Analysis Mandatory for New Passenger Ships and Review of the Recommendation on Evacuation Analysis for New and Existing Passenger Ships
9	Amendments to SOLAS Chapter II-1 and Associated Guidelines on Damage Control Drills for Passenger Ships
10	Revision of Section 3 of the Guidelines for Damage Control Plans and Information to the Master (MSC.1/Circ.1245) for Passenger Ships
13	Amendments to the 2011 ESP Code
14	Unified Interpretation to Provisions of IMO Safety, Security, and Environment-Related Conventions
15	Revised SOLAS Regulation II-1/3-8 and Associated Guidelines (MSC.1/Circ.1175) and New Guidelines For Safe Mooring Operations for All Ships
16	Mandatory Instrument and/or Provisions Addressing Safety Standards for the Carriage of More than 12 Industrial Personnel on board Vessels Engaged

	on International Voyages
17	Guidelines for Use of Fibre-Reinforced Plastic (FRP) within Ship Structures

2. A brief coverage of the agenda are expressed in the attached document.
3. Any information or advice provided in this document shall be no responsibility of BKI and BKI shall not be liable to any person for any loss, damage or expense cause by its reliance.

More info

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BRIEF INFORMATION OF IMO SUB-COMMITTEE ON SHIP DESIGN AND CONSTRUCTION SESSION 3 (SDC 3)

A. AMENDMENTS TO SOLAS REGULATIONS II-1/6 AND II-1/8-1 (AGENDA ITEM 3)

Several studies regarding damage stability for passenger ships to improve the attained index "A" and to give justification to increase the required index "R" have been conducting. EMSA 3 study is one of studies submitted to IMO.

SDC 3 has noted that EMSA 3 study has no data for passenger ships carrying less than 400 persons, which make it difficult to design subdivision for smaller ships. However after the discussion, SDC 3 considered that it is possible to find a compromised solution for ships carrying up to 400 persons. Therefore, SDC 3 agreed to increase index "R" and its new formula.

In relation with the increase of index "R" for passenger ships, it has been agreed that the amendments to SOLAS regulation II-1/6 shall not apply to special purpose ships. Therefore, SDC 3 agreed to amend SPS Code by replacing reference to SOLAS regulation II-1/6.2.3 with current R formula from regulation II-1/6. The amendments are expected to be approved by MSC 96.

B. COMPUTERIZED STABILITY SUPPORT FOR THE MASTER IN CASE OF FLOODING FOR EXISTING PASSENGER SHIPS (AGENDA ITEM 4)

MSC 94 assigned the Sub-Committee to have further discussion regarding the consideration to extent provision in SOLAS to install a stability computer on passenger ships constructed before 1 January 2014 (existing ships).

Having considered the proposed amendments to SOLAS regulation, SDC 3 noted that there are several issues needed to consider, among others:

1. Acceptance criteria for the software
2. Clarification on the scope of application
3. The possibility to revise of MSC.1/Circ.1400 accordingly

Due to time constraints, above matters will be further discussed at SDC 4.

C. GUIDELINES ON SAFE RETURN TO PORT FOR PASSENGER SHIPS (AGENDA ITEM 5)

Following the work of SDC 2 to revise the Guidelines on operational information for masters of passenger ships for safe return to port by own power or under tow (MSC.1/Circ.1400), the Sub-Committee has instructed SDS Correspondence Group to finalize the draft revised guidelines.

Through the work of working group established during SDC 3, the draft was finalized and generally agreed by the Sub-Committee. The complete rewrite and update of MSC.1/Circ.1400 will be submitted to MSC 96 for approval. Furthermore, it will be issued as a new MSC circular for passenger ships constructed after the issue date and the title of the guidelines will be "Revised guidelines on operational information for masters of passenger ships for safe return to port".

The revision of the guidelines covers the following matters:

1. Definition of onboard stability computer
2. Requirements for two-way communication links to shore-based support
3. At least two independent stability computers should be available at all times (either two onboard, or two through shore-based support, or one each)
4. The on-board system should have an uninterruptible power supply (UPS) connected to both main and emergency switchboards. UPS is not required for shore-based support.
5. The system should be capable of accounting for applied moments such as wind, lifeboat launching, cargo shifts and passenger relocation.
6. The system should account for the effect of wind by using the method in regulation II-1/7-2.4.1.2 as the default.
7. When shore-based support is provided in accordance with regulation II-1/8-1.3.2, the shore-based support should be operational within one hour.
8. For Ro-ro passenger ships, there should be algorithms in the software for estimating the effect of water accumulation on deck (WOD).

D. FINALIZATION OF SECOND-GENERATION INTACT STABILITY CRITERIA (AGENDA ITEM 6)

In order to continue the work on the second-generation intact stability criteria, SDC 3 re-established the Intact Stability (IS) Working Group to further consider the draft amendments to the 2008 IS Code regarding the draft criteria in levels 1 and 2 for:

- a. pure loss of stability;
- b. parametric roll resonance;
- c. surf-riding / broaching;
- d. dead ship condition; and
- e. excessive accelerations

Moreover, the Working Group was instructed to further develop the draft Explanatory Notes for all five failure modes based on the work made by SDC 2.

Taking into account the work of the Working Group, SDC 3:

1. noted the minor improvements made to finalize draft amendments to the 2008 IS Code regarding vulnerability criteria and the standards (levels 1 and 2) for pure loss of stability and surf-riding/broaching
2. agreed, in principle, to the draft amendments to the 2008 IS Code regarding vulnerability criteria and the standards (levels 1 and 2) for dead ship condition and excessive accelerations.
3. noted the progress made by the working group on the development of the draft explanatory notes for pure loss of stability, parametric roll, surf-riding / broaching, dead ship condition and excessive

acceleration failures, and request the draft explanatory notes to be finalized intersessionally by correspondence group.

4. noted the progress made on the development of the draft Guidelines of direct stability assessment procedures and operational limitation/guidance, , and request the draft explanatory notes to be finalized intersessionally by correspondence group.

The above decisions will be submitted to SDC 4 for further work and finalization.

E. AMENDMENTS TO PART B OF THE 2008 IS CODE ON TOWING, LIFTING AND ANCHOR HANDLING OPERATIONS (AGENDA ITEM 7)

Having noted that MSC 95 had agreed to the criteria for anchor handling operations, which are expected to enter into force 1 January 2018, SDC 3 continued the discussion regarding criteria for towing and lifting operations by taking into account the report of IS Correspondence Group.

SDC 3, in general, agreed to the draft amendments concerning towing, including escort towing, and agreed that the draft requirements would apply to new ships and to ships with newly installed equipment for towing.

In addition, SDC 3 also agreed, in principle, to the draft requirements concerning lifting should apply to new ships and to major conversions involving large cranes being newly fitted to existing ships.

The draft amendments to part B of the 2008 IS Code regarding vessels engaged in towing and lifting operations will be submitted to MSC 96 for approval.

F. AMENDMENTS TO SOLAS AND FSS CODE TO MAKE EVACUATION ANALYSIS MANDATORY FOR NEW PASSENGER SHIPS AND REVIEW OF THE RECOMMENDATION ON EVACUATION ANALYSIS FOR NEW AND EXISTING PASSENGER SHIPS (AGENDA ITEM 8)

There is a long discussion on methods and criteria used to ensure the accuracy of the evacuation analysis, and that open deck area is prescribed across sub-types in passenger ship (e.g. ro-ro passenger, cruise ship) during evacuation analysis. Editorial amendments to ensure consistency of terminology and restructuring definitions are agreed. The definition of open deck areas is expected to be submitted by interested parties at SDC 4.

It was agreed that agreed changes should not apply to ro-pax passenger vessel which has voluntarily conduct evacuation analysis as mandated from SOLAS and also to other passenger vessel which has voluntarily conduct evacuation analysis in accordance with two issued MSC Circulars.

G. AMENDMENTS TO SOLAS CHAPTER II-1 AND ASSOCIATED GUIDELINES ON DAMAGE CONTROL DRILLS FOR PASSENGER SHIPS (AGENDA ITEM 9)

Draft amendments to SOLAS II-1/19 , III/30 dan III/37

IMO agrees that damage control drills could improve the safety of passenger ships and the amendments to SOLAS should be developed along with other guidance as necessary. The issues to be taken into account are the impact of the ship's crew and most importantly are to ensure that the resting period of the crew shall not be used for drill. It was agreed that HTW sub-committee will review the said proposal and decide the intervals to be used.

After long discussion, the amendments to .SOLAS regulation II-1/19, III/30 and III/37 to mandate damage control drills, were finally agreed to be submitted to MSC. Since the amendments are in details, the need to develop additional guidelines is deemed unnecessary at the moment. Nevertheless, in the future, as experienced has been gained in conducting the drill on different type and sizes of passenger ships, additional guidelines may be necessary.

H. REVISION OF SECTION 3 OF THE GUIDELINES FOR DAMAGE CONTROL PLANS AND INFORMATION TO THE MASTER (MSC.1/CIRC.1245) FOR PASSENGER SHIPS (AGENDA ITEM 10)

"Guidelines for damage control plans and information to the Master" (MSC.1/Circ. 1245) is agreed to be revised as consequence to several developments in the subject of Passenger Ship Safety. This revision should not go outside the scope of the application of passenger ships and is expected to apply only to new buildings or existing ships which undergo a significant modification. Therefore, any proposal to MSC.1/Circ.1245 are welcomed to be submitted to SDC 4.

I. AMENDMENTS TO THE 2011 ESP CODE (AGENDA ITEM 13)

SDC 3 agreed to further develop ESP Code based on IACS proposal which reflected the amendment to IACS UR Z10 series.

The said amendments clarify several elements as follows :

- The requirements to conduct Thickness Measurements of the area subject to Close up surveys are expected to be incorporated in the table "MINIMUM REQUIREMENTS FOR THICKNESS MEASUREMENTS AT SPECIAL SURVEY...."
- Exemption from internal check of hatch cover box type-where surveyor did not have access to internal structures and is not considered becoming subject of corrosion
- Defining the minimum content of the Tank Testing Guidelines

These IACS requirements will enter into force on 1 July 2016. The ESP amendments are expected to enter into force on 1 January 2020 or 1 July 2018, depends on decision made by MSC.

J. UNIFIED INTERPRETATION TO PROVISIONS OF IMO SAFETY, SECURITY, AND ENVIRONMENT-RELATED CONVENTIONS (AGENDA ITEM 14)

SDC 3 agreed on the following IACS UI's:

- UI SC 246 on ships steering gear when the ship cannot conduct ballast till full draught load at sea trial. This is also notes as a possible amendment to MSC/Circ.1425
- UI MODU1 on means of access for MODU. It is also noted that the possibility of MSC.1 Circular is needed to be revised
- UI SC191 Rev.7 which includes dimension of adjacent section to ladder. It was also noted the possibility on revising MSC.1/Circ.1464/Rev.1
- UI TM 2 which concludes that heat exchangers is part of machinery and to be treated as R.2(4)-9 of TM.5/Circ.6
- UI SC273 which explains that mass of fire extinguishing medium to be included in the calculation of lightweight.

K. REVISED SOLAS REGULATION II-1/3-8 AND ASSOCIATED GUIDELINES (MSC.1/Circ.1175) AND NEW GUIDELINES FOR SAFE MOORING OPERATIONS FOR ALL SHIPS (AGENDA ITEM 15)

This agenda focuses more on the development of mandatory guidelines which could have significant impact on mooring arrangement of all ships type 3000 GT and above.

Based on the above, discussion at IMO considers:

- The need to establish correspondence group to start relevant work that can be discussed at SDC4
- The Scope of work (for mooring operations) and application criteria (new building 3000 GT and above) has been clearly stated by MSC
- Challenges on identification and certification on each mooring lines has been raised
- That it may be necessary to determine the link with the shore connection
- Drafting group has been established for making the terms of reference for correspondence group using the documents submitted to MSC and SDC and comments made during plenary.
- SDC 3 concurs that intersessional correspondence group to carry out the progress and report its work on SDC 4

L. MANDATORY INSTRUMENT AND/OR PROVISIONS ADDRESSING SAFETY STANDARDS FOR THE CARRIAGE OF MORE THAN 12 INDUSTRIAL PERSONNEL ON BOARD VESSELS ENGAGED ON INTERNATIONAL VOYAGES (AGENDA ITEM 16)

Following the decision taken by MSC 95, the Sub-Committee instructed the Expert Group on Carriage of more than 12 Industrial Personnel on Board Vessels Engaged on International Voyages to continue the discussion related to “industrial personnel”.

Following the discussion, the group noted that different decisions on many fundamental elements, e.g. amending SOLAS or not, creating new code or not, application scope etc. would lead to a large number of options. With a view to structure the debate on the different options, the group agreed that any options should specify the following criteria:

1. Scope (e.g. SPS Code, OSV Code, HSC Code, MODU Code and SOLAS)
2. Time frame/interim/mandatory
3. Existing code/new code
4. Definition of Industrial Personnel
5. Ship type
6. Road map
7. Advantages and disadvantages
8. Potential way forward

Generally, SDC 3 agreed to result undertaken by the expert group and will forward the eight options on the regulatory regimes and procedures for transporting industrial personnel and the table on comparison of criteria within proposed options, together with the expert group’s views under "Scope", "Time frame/interim/mandatory", "Existing code/new code", "Definition of Industrial Personnel", "Ship type", "Road map", "Advantages and disadvantages" and "Potential way forward" to MSC 96 for consideration. In light of putting the footnote to SOLAS Chapter I, SDC 3 further requested IMO Secretariat to submit legal advice to IMO on whether this would be viable without amending the SOLAS Chapter I.

M. GUIDELINES FOR USE OF FIBRE-REINFORCED PLASTIC (FRP) WITHIN SHIP STRUCTURES (AGENDA ITEM 17)

Interim Guidelines on the use of FRP on ship structures has been completed during SDC 2, however MSC decided that additional works is needed to clarify several issues on the use of FRP.

Intersessional correspondence group have been established and will develop those guidelines much further and focusing on the issues of combustibility and structural integrity. The group also been asked to consider the scope of draft interim guidelines and development on the clarification of the wording “element”.