



Technical Information

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To : Whom It May Concern

Subject : Summary Report on IMO Meeting of Sub-Committee on Ship Design and Construction (SDC) 7th sessions

Summary

This Technical Information summarizes the result of 7th Session of the IMO Meeting of Sub-Committee on Ship Design and Construction (SDC) held from 3 to 7 February 2020, at IMO headquarters in London.

Information

1. The information provided in this Technical Information are the ones which have high relevance with the work of BKI or considered as an essential information for interested parties.
2. The following agenda are among those discussed during the meeting :

Agenda Number	Topic
3	Amendments to the Explanatory Notes to SOLAS chapter II-1 subdivision and damage stability regulations (resolution MSC.429(98))
5	Finalization of second generation intact stability criteria
6	Mandatory instrument and/or provisions addressing safety standards for the carriage of more than 12 industrial personnel on board vessels engaged on international voyages
7	Development of amendments to SOLAS chapter II-1 to include requirements for water level detectors on non-bulk carrier cargo ships with multiple cargo holds
10	Amendments to the 2011 ESP Code
11	Unified interpretation to provisions of IMO safety, security and environment-related conventions
12	Review of mandatory requirements in the SOLAS, MARPOL and Load Line Conventions and the IBC and IGC Codes regarding watertight doors on cargo ships
15	Any Other Business

3. The Agenda above are several technical issues discussed during the meeting. A brief coverage among the issues are expressed in the attached document.

More info

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BRIEF INFORMATION ON IMO MEETING OF SUB COMMITTEE ON SHIP DESIGN AND CONSTRUCTION
7TH SESSION (SDC 7)

A. AMENDMENTS TO THE EXPLANATORY NOTES (EN) TO SOLAS CHAPTER II-1 SUBDIVISION AND DAMAGE STABILITY REGULATIONS (RESOLUTION MSC.429(98)) (AGENDA ITEM 3)

Draft explanatory note for SOLAS regulation II-1/7-2.5.5

A new EN was considered not necessary because the new SOLAS amendments had not changed the meaning of the requirements.

Explanatory notes for SOLAS regulations II-1/17.1 and II-1/17.2

There are some modifications to the ENs for SOLAS regulations II-1/17.1 and 17.2, in order to provide clarity with regard to grandfathering. The references to SOLAS regulation II-2/9.4.1.1.2 was also replaced with the updated references to regulation II-2/9.4.1.1.3.

Explanatory note for SOLAS regulation II-1/17.3

Regarding to this regulation, in order to be considered capable of preventing the passage of water when intermittently immersed in the required range of positive stability, the doors should meet a watertight standard for a minimum 1 m head of water. In this regard, it's concluded that this pressure head was sufficient for this application and would provide a consistent standard for the approval of these doors. There were also some modification to the labels of the related explanatory figure, in order to better align them with the regulation text.

Given these doors are located above the bulkhead deck, they must comply with a combination of watertight and fire protection requirements. In this context, it was agreed that these doors are required to comply with the fire protection requirements in SOLAS chapter II-2, and that because these doors are not watertight doors that complies with the requirements in regulation II-1/13, the exclusions for watertight doors in chapter II-2 does not apply. On this basis, it was agreed to include relevant additional requirements for these doors, based on the watertight door requirements in regulation 13.

Explanatory notes for SOLAS regulations II-1/7.7, 7-1.1.1 and II-1/7-1.1.2

It was agreed that the ENs for SOLAS regulations II-1/7.7, II-1/7-1.1.1 and II-1/7-1.1.2 could be modified to improve clarity. In this context, it was agreed to add a provision that in no case should the separation distance on either side of the bulkhead or deck be more than 450 mm measured from the valve's near end to the bulkhead or deck. It was also agreed to include the necessary grandfathering clauses.

Explanatory note for SOLAS regulation II-1/13.4

An intervention in the plenary informs that the EN for SOLAS regulation II-1/13.4 could potentially permit up to eight watertight doors in the bulkheads of a ship with two engine-rooms separated by a longitudinal bulkhead, however It was agreed that this potential arrangement was not very realistic and hence no action was considered necessary.

Semi-watertight sliding doors above the bulkhead deck

Regarding to SOLAS regulation II-1/17, the option 2 interpretation (document SDC 7/3/1) was agreed, i.e. that the intention had been to include these semi-watertight doors in the "non-application" statement in SOLAS regulation II-2/9.4.1.1.5 for power-operated watertight doors. In this context, it was also

agreed that the requirements in SOLAS regulation II-2/9.4.1.1.8, concerning hose ports, would not be applicable.

Draft amendments to section 3 of MSC.1/Circ.1572

It was agreed that the correct reference in footnotes 5 and 6 is to the Code on Alerts and Indicators, 2009, (resolution A.1021(26)).

Regarding to paragraphs 3.5.1 and 3.5.4, it was agreed that for passenger ships, the alarms should be located at the central operating console at the navigation bridge. For cargo ships, the alarms should be located at the navigation bridge.

It was also agreed that the revised MSC.1/Circ.1572 should only apply to ships constructed on or after 1 January 2020 or from the effective date of the revised circular.

Guidance for SOLAS Regulation II-1/22.3

Having noted that SOLAS regulation II-1/22.3 refers to guidance issued by the Organization which Administrations shall take into account when authorizing watertight doors that may be opened during navigation, it was agreed that no prescribed guidance with respect to stability survivability is necessary for cargo ships. To document and ensure visibility regarding this determination, the Group agreed to include a new EN for regulation II-1/22.3, explaining that for cargo ships, these authorizations are left to the discretion of the Administration.

B. FINALIZATION OF SECOND GENERATION INTACT STABILITY CRITERIA (AGENDA ITEM 5)

Taking into account the report of Intact Stability (IS) Correspondence group part 1 and part 2 in SDC 6, the Sub-Committee considered the following outstanding issues in relation to the finalization of second generation intact stability criteria:

1. restructure the draft interim guidelines;
2. prepare draft explanatory notes, with a view to consideration and finalization at SDC 8.

Draft Interim Guidelines for the Second Generation Intact Stability Criteria

Report of the IS Correspondence group part 1 containing the draft interim guideline for the intact stability assessment of ship dynamics in waves as a consolidated draft instrument comprising three set of interim guidelines, as follows:

1. guidelines on vulnerability criteria;
2. guidelines on the specification of direct stability assessment procedures; and
3. preparation of operational limitations and operational guidance.

The Sub-Committee approved part 1 of the report as to ensure that the criteria mentioned in the draft Interim guidelines can be trialed to gain practical experience in their application to enable future revisions.

Draft Explanatory Notes for the Second Generation Intact Stability Criteria

Considering report of the IS Correspondence group part 2 and documents submitted by member States, the Sub-Committee approved the report in general and decided to established the Drafting Group.

Establishment of the Drafting Group

Taking into account comments made and decisions taken in the plenary, the Sub-Committee agreed to establish the Drafting Group on Intact Stability and instructed to do the following:

1. finalize the draft Interim guidelines on second generation intact stability criteria;
2. further develop the draft Explanatory notes on the second generation intact stability criteria, if time permits;
3. prepare the draft terms of reference for the intersessional Correspondence Group on Intact Stability for the further development of the Explanatory notes on the second generation intact stability criteria.

After an extensive discussion, the Drafting group agreed with following matters:

Finalization of the draft Interim guidelines on the second generation intact stability criteria

- The draft Interim guidelines on the second generation intact stability criteria is completed.
- Regarding an alternative text explaining “calculation procedures of long-term indices for different vulnerability level 2 criteria”, the Group agreed to retain the existing structure in Annex 1 SDC 7/5;
- Outstanding issues and comprehensive editorial review of the draft Interim guidelines
 - the improvement of the figure of “simplified scheme of the application structure” could be incorporated into the draft explanatory notes to be finalized in the future.
 - regarding review period of the Interim guidelines, the Group deleted the text “four years after approval” as there should be no restriction for having the opportunity to amend.
 - Comprehensive editorial review:
 - .1 removed the differentiation between total and partial stability
 - .2 reorganized the order of the application logic for improved readability
 - .3 modified the sequential logic in support figure
 - .4 modified the definition for “loading condition” and “operational measures”, and included new definition “fully loaded departure condition”
 - .5 defined “maximum service speed” and “mean three-hour maximum amplitude”
 - .6 modifying the titles by replacing “vulnerability criteria” to “vulnerability criterion” in various sections
 - .7 reformulated to provision regarding the application of operational measures for particular mode(s)

Finalization of the draft Explanatory notes

The Group agreed that the Explanatory notes should not be annexed to the Interim guidelines and should be issued in a separate circular to facilitate revisions in the future, without having to amend the Interim guidelines.

Considering the Correspondence group report part 1; part 2; and the report of the Drafting group, in general, the Sub-Committee:

1. agreed to the draft Interim Guidelines for the Second Generation Intact Stability Criteria and the associated draft MSC circular;
2. endorsed that the draft Explanatory notes should be issued as a standalone circular;

3. considered the terms of reference for the Correspondence Group in Intact Stability to further develop the **draft Explanatory Notes**.

C. 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 6)

Taking into account the report of Correspondence group established in SDC 6, the Sub-Committee considered the following main outstanding issues in relation to the development of draft SOLAS Chapter [XV] and draft new IP Code inter alia:

- Regarding safe transfer arrangement for Industrial personnel, draft Code should consider hazard related to weather, sea conditions, visibility, communication and etc.
- The requirement of launching time for abandonment of the ship taking into account an aggregated number of personnel in the ship
- Training requirement for Industrial Personnel when the ships also carried out dangerous goods.

Based on the discussion made in the plenary, the Sub Committee noted the several opinions regarding the above issue. Hence, the Sub Committee agreed to take those issues to be discussed in the Working Group to get further consideration together with the finalization of the draft SOLAS chapter XV and the draft IP Code.

Establishment of the Working Group

The Sub-Committee agreed to re-establish the Working Group on Carriage of more than 12 Industrial Personnel on board Vessels engaged on International Voyages, with task to:

1. Finalize the draft new SOLAS chapter XV;
2. finalize parts I to IV of the draft IP Code;
3. continue to develop part V of the draft IP Code, if time permits;
4. prepare part III of the check/monitoring sheet for the process of amending the (SOLAS) Convention;
5. consider the input needed from the PPR Sub-Committee in relation to the carriage of dangerous chemicals with regard to the development of the IP Code at this session;
6. draft specific requests for input and advice from CCC 7;
7. consider the need for input from the HTW Sub-Committee with regard to training and certification of industrial personnel.

After an in-depth discussion, the group agreed with the following matters

Draft new SOLAS chapter XV

❖ **Application**

- Apply to ships constructed on or after the date of entry into force of this chapter;
- Apply to ships constructed prior to the entry into force date starting to carry industrial personnel after the entry into force date.

❖ **Matters related to high speed craft**

Because of the complexity for the requirements of high-speed craft, the group agreed that the need to further consider the draft new SOLAS chapter for matters related to the carriage of industrial personnel on board high-speed craft. Therefore, the group proposed to take on the two-phase approach of the work on the development mandatory provisions addressing safety standard for Industrial Personnel. Consequently, the group has prepared the draft new SOLAS related to the high speed craft to be further discussed by the Correspondence Group, if re-established.

Draft new IP Code.

❖ **Input from the HTW Sub Committee**

It was considered that there was no need for any specific input from the HTW Sub-Committee on the requirements for training of industrial personnel in the draft IP Code

❖ **Carriage of dangerous goods on ships transporting industrial personnel**

Taking into account that industrial personnel are not involved with the handling of dangerous goods and dangerous goods brought on board by industrial personnel for their offshore activities, are considered as cargo, then the group agreed to delete the word “training” from draft part IV (Additional regulations for ships certified in accordance with SOLAS chapter I), regulation 8.3 (Carriage of dangerous goods in solid form in bulk).

In general, the Sub Committee approved above decisions and agreed to re-establish correspondence group in term to further discuss on the provisions of carriage IP on High speed craft.

D. DEVELOPMENT OF AMENDMENTS TO SOLAS CHAPTER II-1 TO INCLUDE REQUIREMENTS FOR WATER LEVEL DETECTORS ON NON-BULK CARRIER CARGO SHIPS WITH MULTIPLE CARGO HOLDS (AGENDA ITEM 7)

The addition to SOLAS amendment regulation was agreed (regulation II-1/25-1) regarding to water level detectors in cargo ships with multiple cargo holds other than bulk carriers and tankers. This amendment was proposed to apply for ships constructed on or after 1 January 2024. According to the draft of the amendment regulation that multiple hold cargo ships other than bulk carriers and tankers constructed on or after 1 January 2024 shall be fitted with water level detectors in each cargo hold intended for dry cargoes.

E. AMENDMENTS TO THE 2011 ESP CODE (AGENDA ITEM 10)

Provisions for Remote Inspection Techniques (RITs)

With regards to draft amendments to the 2011 ESP Code to allow the use of Remote Inspection Techniques (RITs), the Sub-Committee, generally supports the proposal. However, the matter requires a broader consideration and that IMO may consider taking a holistic approach in regulating RIT, including those that may be considered under other instruments. Subsequently, the Sub-Committee

agreed to invite interested Member States and international organizations to submit proposals on the matter to the Sub-Committee for consideration.

In addition, it is important to note that the use of RITs are not intended to replace surveyors' work, but to ensure that surveyors had the freedom to use RIT when appropriate.

Thickness measurements at the first renewal survey of double hull oil tankers

The Sub-Committee considered a proposal to amend the 2011 ESP Code whereby it would be sufficient to consider only suspect areas for thickness measurements at the first renewal survey of double hull oil tankers.

Subsequently, the Sub-Committee agreed to draft amendments to annex 2 of part A of annex B of the 2011 ESP Code, as amended by resolution MSC.461(101) for submission to MSC 102 with a view to approval and subsequent adoption.

F. UNIFIED INTERPRETATION TO PROVISIONS OF IMO SAFETY, SECURITY, AND ENVIRONMENT-RELATED CONVENTIONS (AGENDA ITEM 11)

Unified interpretation of regulation 25(3) of the International Convention on Load Lines, 1966, as modified by the 1988 Protocol relating thereto

The Sub-Committee considered a proposal regarding unified interpretation of regulation 25(3) of the International Convention on Load Lines, 1966, as modified by the Protocol of 1988 relating thereto, regarding the setting of courses of guard rails for the protection of crew, in order to fill the gap for the term "superstructure" in the Convention, in particular to require three courses for guard rails (instead of only two) for modern designs of large ship open deck superstructures.

In considering the proposed draft unified interpretation to the 1988 LL Protocol, the Sub-Committee, while confirming that this was an important safety matter and that a regulatory gap existed with respect to the arrangement of guard rails on large ship open deck superstructures, agreed that a unified interpretation would not be an appropriate solution and, therefore, invited interested Member States and international organizations to submit a new output proposal to Maritime Safety Committee (MSC).

G. REVIEW OF MANDATORY REQUIREMENTS IN THE SOLAS, MARPOL AND LOAD LINES CONVENTIONS AND THE IBC AND IGC CODES REGARDING WATERTIGHT DOORS ON CARGO SHIPS (AGENDA ITEM 12)

To resolve some inconsistencies between requirements in the SOLAS, MARPOL and Load Line Conventions, the International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk (IBC Code) and the International Code for the Construction and Equipment of Ships Carrying Liquefied Gases in Bulk (IGC Code) regarding doors in watertight bulkheads, the draft amendments to regulation 28.3.1 of MARPOL Annex 1, regulation 27(13)(a) of the Protocol of 1988 relating to the International Convention on Load Lines, 1966, as amended, paragraph 2.9.2.1 of the IBC Code and paragraph 2.7.1.1 of the IGC Code have been finalized.

H. ANY OTHER BUSINESS (AGENDA ITEM 15)

Correction to the *Guidelines for safe access to tanker bows* (resolution MSC.62(67)) with regard to foot-stops

The Sub-Committee considered a proposal to amend the *Guidelines for safe access to tanker bows* (resolution MSC.62(67)) with respect to foot-stops in order to replicate the respective mandatory provision on foot-stops in regulations 25-1(2)(e) and (f) of the International Convention on Load Lines, 1966, which were adopted by resolution MSC.143(77), i.e. after approval of resolution MSC.62(67).

Following discussion, the Sub-Committee agreed to the draft amendments to the *Guidelines for safe access to tanker bows* (resolution MSC.62(67)), for submission to MSC 102 for adoption as minor corrections for dissemination as resolution MSC.62(67)/Rev.1.

Minor correction to the 1988 LL Protocol

The Sub-Committee considered a proposal regarding a minor editorial correction to regulation 22 (1)(g) of the 1988 LL Protocol, as amended, by deleting the reference to "inlets" therein, which the sponsors consider to be an editorial error.

Subsequently, the Sub-Committee agreed to the draft amendments to the 1988 LL Protocol, for submission to MSC 102 for approval, with a view to subsequent adoption as minor corrections.

Clarification on the minimum width of the double-side skin construction of general dry cargo ships of less than 150 m in length which occasionally carry dry cargoes in bulk

Taking into account document submitted to SDC 7 to seek clarification on the application of the minimum width of double-side skin construction to general dry cargo ships which are less than 150 m in length, and which occasionally carry dry cargoes in bulk, the Sub-Committee had its discussion and agreed, in principle, that the application for the minimum width should be applied for ships of 150 m and over.

However, the proposed amendments to Clarification of the term "bulk carrier" and guidance for application of regulations in SOLAS to ships which occasionally carry dry cargoes in bulk and are not determined as bulk carriers in accordance with regulation XII/1.1 and chapter II-1 (resolution MSC.277(85)) cannot be considered as minor corrections, therefore, a new output proposal would be required and Member States and international organizations were invited to submit a new output proposal.

Guidelines for wing-in-ground craft

Following the instruction of SDC 6 to update the outdated references in the *Guidelines for wing-in-ground craft* (MSC.1/Circ.1592), the Sub-Committee considered proposal on how to conduct a comprehensive analysis of the existing instruments on WIG craft with a view to updating outdated

references therein and to recommend to MSC 102 to consider the continuation of work on WIG craft, with the inclusion of an output item on the agenda of the SDC Sub-Committee.

After the discussions, the Sub-Committee invited interested Member States and international organizations to provide a new output proposal to the Committee, in accordance with MSC-MEPC.1/Circ.5/Rev.1, to conduct a comprehensive review of the *Guidelines for wing-in-ground craft* (MSC.1/Circ.1592).