

SUB-COMMITTEE ON SHIP DESIGN AND
CONSTRUCTION
3rd session
Agenda item 14

SDC 3/14
19 August 2015
Original: ENGLISH

**UNIFIED INTERPRETATION TO PROVISIONS OF IMO SAFETY, SECURITY,
AND ENVIRONMENT-RELATED CONVENTIONS**

Sill and coaming heights for openings on top of deckhouses and companionways

Submitted by the International Association of Classification Societies (IACS)

SUMMARY

Executive summary: This document provides, in the annex, a draft unified interpretation for consideration by the Sub-Committee on the minimum height of sills and coamings for various openings on the top of deckhouses or companionways on the freeboard deck

Strategic direction: 1.1

High-level action: 1.1.2

Planned output: 1.1.2.3

Action to be taken: Paragraph 6

Related documents: SDC 1/21/5 and SDC 1/26 (paragraphs 21.13 and 21.14)

Background

1 At its first session, the Sub-Committee considered document SDC 1/21/5 (IACS), seeking clarification on the minimum height of sills and coamings for various openings on the top of deckhouses or companionways on the freeboard deck.

2 Following discussion, the Sub-Committee decided not to pursue an amendment to the LL Convention and Protocol, but recognized that a long-term solution was needed to address the matter. The Sub-Committee invited IACS to submit a unified interpretation to SDC 2 as a short-term solution, which, based on the analysis and proposals provided in document SDC 1/21/5, would also take into account flush bolted access covers (SDC 1/26, paragraph 21.14). IACS was unable to finalize this work in time for submission to SDC 2, and, therefore, this further work is presented to SDC 3.

Discussion

3 As requested by the Sub-Committee, IACS has prepared the attached draft unified interpretation, based on the discussion at SDC 1, for its consideration.

4 During its discussion of this matter, IACS has identified a further issue regarding the height of air pipes on decks that are situated on superstructure decks in the forward quarter length of the ship. It was recognized that the regulations do not apply different coaming heights to air pipes based on their location aft of the FP. As such, the following inconsistency in the coaming heights for items protecting openings that are located on superstructures in the forward quarter length of the ship that are more than 2, but less than 3 times the standard superstructure height arises:

- .1 hatchways, ventilators, doorways would be required to have a minimum coaming of 450 mm, 760 mm, 380 mm in height respectively; whereas
- .2 air pipes would not be required to have any minimum coaming height.

5 However, it is considered that to provide consistency regarding the coaming heights for the openings discussed in paragraph 4 above would be beyond the scope of an interpretation. Therefore, the Sub-Committee is invited to consider the coaming height of air pipes, located on superstructures in the forward quarter length of the ship that are more than 2, but less than 3 times the standard superstructure height.

Action requested of the Sub-Committee

6 The Sub-Committee is invited to consider the foregoing, in particular the issue discussed in paragraphs 4 and 5 above, and the draft unified interpretation provided in the annex, and take action as appropriate.

ANNEX

PROPOSED UNIFIED INTERPRETATIONS

INTERPRETATION OF SILL AND COAMING HEIGHTS FOR ITEMS PROTECTING OPENINGS ON THE TOP OF DECKHOUSES AND COMPANIONWAYS LOCATED ON THE FREEBOARD DECK

1966 ICLL and the 1988 Protocol, as amended by resolution MSC.329 (90) read:

Regulation 3(11) – Superstructure deck

A superstructure deck is a deck forming the upper boundary of a superstructure.

Regulation 12(1) – Doors

All access openings in bulkheads at ends of enclosed superstructures shall be fitted with doors of steel or other equivalent material, permanently and strongly attached to the bulkhead, and framed, stiffened and fitted so that the whole structure is of equivalent strength to the un-pierced bulkhead and weathertight when closed. The means for securing these doors weathertight shall consist of gaskets and clamping devices or other equivalent means and shall be permanently attached to the bulkhead or to the doors themselves, and the doors shall be so arranged that they can be operated from both sides of the bulkhead.

Regulation 13 – Position of hatchways, doorways and ventilators

For the purpose of these regulations, two positions of hatchways, doorways and ventilators are defined as follows:

Position 1 – Upon exposed freeboard and raised quarter decks, and upon exposed superstructure decks situated forward of a point located a quarter of the ship's length from the forward perpendicular.

Position 2 – Upon exposed superstructure decks situated abaft a quarter of the ship's length from the forward perpendicular and located at least one standard height of superstructure above the freeboard deck.

Regulation 14-1(1) – Hatchway coamings

The coamings of hatchways shall be of substantial construction in accordance with their position, and their height above the deck shall be at least as follows:

- (a) 600 mm if in position 1; and
- (b) 450 mm if in position 2.

Regulation 18(2) – Miscellaneous openings in freeboard and superstructure decks

Openings in freeboard decks other than hatchways, machinery space openings, manholes and flush scuttles shall be protected by an enclosed superstructure, or by a deckhouse or companionway of equivalent strength and weathertightness. Similarly, any such opening in an exposed superstructure deck, in the top of a deckhouse on the freeboard deck which gives access to a space below the freeboard deck or a space within an enclosed superstructure shall be protected by an efficient deckhouse or companionway. Doorways in such companionways or deckhouses that lead or give access to stairways leading below, shall be fitted with doors in accordance with regulation 12(1).

Regulation 18(4) – Miscellaneous openings in freeboard and superstructure decks

In position 1 the height above the deck of sills to the doorways in companionways shall be at least 600 mm. In position 2 it shall be at least 380 mm.

Regulation 19(1) – Ventilators

Ventilators in position 1 or 2 to spaces below freeboard deck or decks of enclosed superstructures shall have coamings of steel or other equivalent material, substantially constructed and efficiently connected to the deck. Ventilators in position 1 shall have coamings of a height of at least 900 mm above the deck; in position 2 the coamings shall be of a height at least 760 mm above the deck. Where the coaming of any ventilator exceeds 900 mm in height it shall be specially supported.

Regulation 20(1) – Air pipes

Where air pipes to ballast and other tanks extend above the freeboard or superstructure decks, the exposed parts of pipes shall be of substantial construction; the height from the deck to the point where water may have access below shall be at least 760 mm on the freeboard deck and 450 mm on the superstructure deck.

INTERPRETATION

Regulation 13 – Position of hatchways, doorways and ventilators

For the purpose of these regulations, two positions of hatchways, doorways and ventilators are defined as follows:

Position 1 – Upon freeboard decks and raised quarterdecks, or other exposed decks* lower than one standard height of superstructure above the freeboard deck, and upon exposed decks* situated forward of a point located a quarter of the ship's length from the forward perpendicular that are located lower than two standard heights of superstructure above the freeboard deck.

Position 2 – Upon exposed decks* situated abaft a quarter of the ship's length from the forward perpendicular and located at least one standard height of superstructure above the freeboard deck and lower than two standard heights of superstructure above the freeboard deck.

Upon exposed decks* situated forward of a point located a quarter of the ship's length from the forward perpendicular and located at least two standard heights of superstructure above the freeboard deck and lower than three standard heights of superstructure above the freeboard deck.

* "exposed decks" include top decks of superstructures, deckhouses, companionways and other similar deck structures.

Regulation 20 – Air pipes

Where air pipes to ballast and other tanks extend above:

- the freeboard deck, or
- other exposed decks* lower than two standard heights of superstructure above the freeboard deck,

the exposed parts of the pipes shall be of substantial construction, and the height from the deck to the point where water may have access below shall be at least:

- 760 mm on the freeboard deck or other exposed decks* lower than one standard height of superstructure above the freeboard deck and
- 450 mm on other exposed decks* lower than two standard heights of superstructure above freeboard deck

* "exposed decks" include top decks of superstructures, deckhouses, companionways and other similar deck structures.

Note: Flush bolted access covers, which are of substantial construction and are secured by gaskets and closely spaced bolts to maintain water tightness, are not subject to the minimum sill height requirements.