

SUB-COMMITTEE ON SHIP SYSTEMS AND  
EQUIPMENT  
6th session  
Agenda item 4

SDC 6/4/2  
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**REVIEW SOLAS CHAPTER II-1, PARTS B-2 TO B-4, TO ENSURE CONSISTENCY WITH  
PARTS B AND B-1 WITH REGARD TO WATERTIGHT INTEGRITY**

**Minor correction to SOLAS regulation II-1/17-1.1.1**

**Submitted by IACS**

**SUMMARY**

*Executive summary:* This document discusses the need for a minor correction to SOLAS regulation II 1/17-1.1.1

*Strategic direction, if applicable:* Other work

*Output:* OW 41

*Action to be taken:* Paragraph 10

*Related documents:* SOLAS/CONF.3/3/Rev.1 and SOLAS/CONF.3/32

**Introduction**

1 Paragraphs 1.1, 1.2 and 1.3 of SOLAS regulation II-1/17-1 (resolution MSC.216(82)) state:

"1.1 Subject to the provisions of paragraphs 1.2 and 1.3, all accesses that lead to spaces below the bulkhead deck shall have a lowest point which is not less than 2.5 m above the bulkhead deck.

1.2 Where vehicle ramps are installed to give access to spaces below the bulkhead deck, their openings shall be able to be closed weathertight to prevent ingress of water below, alarmed and indicated to the navigation bridge.

1.3 The Administration may permit the fitting of particular accesses to spaces below the bulkhead deck provided they are necessary for the essential working of the ship, e.g. the movement of machinery and stores, subject to such accesses being made watertight, alarmed and indicated on the navigation bridge."

2 The aforementioned requirements were transposed, without any change, from regulation 20-2 in resolution 1 of the Conference of Contracting Governments to the International Convention for the Safety of Life at Sea, 1974 adopted on 29 November 1995 (hereafter referred to as resolution 1 of 1995 SOLAS Conference).

### Discussion

3 Having carefully checked the history of the development of the above provisions, IACS is of the view that the reason for the introduction of paragraphs 1.2 and 1.3 was not only to ensure weather-tightness/water-tightness of accesses leading to spaces below the bulkhead deck, but also to provide exemptions/relaxations from the requirement in paragraph 1.1.

4 The view expressed in paragraph 3 above is based on the word "notwithstanding" in the initial draft text of paragraph 1.2 (SOLAS/CONF.3/3/Rev.1, page 9 of the annex, which is reproduced in annex 1; and also the reasoning provided by Japan regarding the proposed amendments to paragraph 1 (SOLAS/CONF.3/32, page 3 of the annex, which is reproduced in annex 2).

5 IACS believes that it was not the intention of Japan to propose the deletion of paragraph 1.2, i.e. the numbering of paragraphs 1.2, 1.3 and 1.4 is incorrect and, therefore, should read ".3", ".4" and ".5". It is noted that the word "bulkhead" appears twice in the third sentence of the "Reason", which IACS understands should read as "bulkhead deck".

6 Taking into account the above comments, IACS is of the view that the words "subject to" in paragraph 1.1 of SOLAS regulation II-1/17-1 should mean "except" or "notwithstanding". However, a literal reading of the text means "on condition of compliance with" or "in addition to the compliance with". IACS is aware that this wording causes considerable confusion about how vehicles can be loaded into spaces below the bulkhead deck.

7 Consequently, IACS proposes that the text of paragraph 1.1 of SOLAS regulation II-1/17-1 be amended, so as to remove the current ambiguity and to facilitate the global and consistent implementation of this regulation, as it impacts the design of ro-ro passenger ships, specifically regarding the arrangements for accesses leading to spaces below the bulkhead deck.

### Proposals

8 IACS proposes to remove the current ambiguity by amending paragraph 1.1 of SOLAS regulation II-1/17-1, as shown below (~~deletions~~ and additions):

"1.1 ~~Subject to the provisions of paragraphs 1.2 and 1.3, all~~ All accesses that lead to spaces below the bulkhead deck shall have a lowest point which is not less than 2.5 m above the bulkhead deck, unless the access is covered by the provisions in paragraphs 1.2 or 1.3. "

9 IACS considers that the above proposed amendments may be considered a "minor correction", as explained in paragraph 3.2(vi) of document C/ES.27/D.

### Action requested of the Sub-Committee

10 The Sub-Committee is invited to consider the foregoing, in particular the proposals in paragraphs 8 and 9 above; and take action, as appropriate.

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**ANNEX 1**

**EXTRACT FROM DOCUMENT SOLAS/CONF.3/3/REV.1<sup>1</sup>**

"Regulation 20-2

Watertight integrity from the ro-ro deck (bulkhead deck) to spaces below

- 1 In ro-ro passenger ships constructed on or after [1 January/July 1997]
  - .1 all accesses that lead to spaces below the bulkhead deck shall have a lowest point which is not less than 2.5 m above the bulkhead deck;
  - .2 notwithstanding the requirements of subparagraph .1, the Administration may authorize the fitting of particular accesses to below the bulkhead deck provided they are necessary for the essential working of the ship, e.g. the movement of machinery and stores, subject to such accesses being made watertight, alarmed and indicated to the navigation bridge;
  - .3 the accesses referred to in subparagraph .2 shall be closed before the ship leaves the berth on any voyage and shall remain closed until the ship is at its next berth;
  - .4 the master shall ensure that an effective system of supervision and reporting of the closing and opening of such accesses referred to in subparagraph .2 is implemented; and
  - .5 the master shall ensure, before the ship leaves the berth on any voyage, that an entry in the logbook, as required by regulation 25, is made of the time of the last closing of the accesses referred to in subparagraph .2."

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<sup>1</sup> Underlined emphasis provided by IACS.



**ANNEX 2**

**EXTRACT FROM THE ANNEX TO DOCUMENT SOLAS/CONF.3/32**

"1.7 Regulation 20-2 (Watertight integrity from the ro-ro deck (bulkhead deck) to spaces below)

(1) PARAGRAPH 1: REVISE AS FOLLOWS:

- .1 In ro-ro passenger ships.....:
  - .1 all accesses from the ro-ro deck that lead to spaces below the bulkhead deck shall have a lowest point which is not less than 2.5 m above the bulkhead deck or;
  - .2 be made watertight and means shall be provided on navigating bridge, indicating whether the access is open or closed;
- .2 the accesses referred to in subparagraph .1.2 shall be... ..(existing text of paragraph .3).
- .3 the master shall... (existing text of subparagraph .4)... ..referred to in subparagraph .3 is implemented ....
- .4 the master shall... (existing text of subparagraph .5)... ..referred to in subparagraph .3 ....

Reason: The above requirement is enough to prevent water ingress to spaces below the bulkhead deck. Japan's main concern about this regulation is the requirement specified in the existing text of paragraph 1.1. If a ship has two ro-ro decks and the lower deck places under the bulkhead, the upper deck will be practically required to have a slope to an access, whose lowest point is not less than 2.5 m above the bulkhead. However, providing such a slope on the ro-ro deck will cause the reduction of flexibility in ship design and number of vehicles carried by the ships. Therefore, this requirement is excessive, in particular for small ro-ro passenger ships. In the proposed paragraph 1.1.2, the requirement of water integrity, "watertight" is more strict than the requirement, "weathertight" for existing ships specified in paragraph 2.1. Also, the new requirement proposed in paragraph 1.1.2 has sufficient and equivalent effectiveness to the requirement specified in paragraph 1.1.1 on water integrity."