

SUB-COMMITTEE ON SHIP DESIGN AND
CONSTRUCTION
4th session
Agenda item 10

SDC 4/10/2
2 December 2016
Original: ENGLISH

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

**Application of SOLAS regulation II-1/3-6, as amended, and the revised Technical
provisions for means of access for inspections (IACS UI SC191)**

Submitted by the International Association of Classification Societies (IACS)

SUMMARY

Executive summary: This document provides information on the latest amendments to IACS Unified Interpretations (UI) SC191 relating to the application of SOLAS regulation II-1/3-6, as amended, and the revised *Technical provisions for means of access for inspections* (resolution MSC.158(78)), in particular, on how paragraph 3.5 of the annex to resolution MSC.158(78) should be interpreted in order to provide a safe means of transferring from one section of a ladder to another, when vertical ladders are used as a means for access for inspection of the vertical structure of oil tankers

Strategic direction: 1.1

High-level action: 1.1.2

Output: 1.1.2.3

Action to be taken: Paragraph 7

Related documents: MSC 96/25; MSC 97/21/2 and MSC 97/22

Background

1 MSC 96 approved MSC.1/Circ.1545 on *Unified interpretations relating to the application of SOLAS regulation II-1/3-6, as amended, and the Revised technical provisions for means of access for inspections* (resolution MSC.158(78)), to ensure a uniform approach towards the application of the provisions of SOLAS regulation II-1/3-6. Subsequently, the Committee requested the Secretariat to prepare a consolidated draft MSC circular containing the provisions of MSC.1/Circ.1464/Rev.1 and Corr.1, as amended by MSC.1/Circ.1507 and MSC.1/Circ.1545, for consideration at its next session.

2 MSC 97, having considered document MSC 97/21/2 (Secretariat), proposing possible ways forward for addressing the above request of MSC 96, requested the Sub-Committee to review the matters identified by the Secretariat and advise the Committee on how best to proceed.

Discussion

3 IACS has been continuing to gain experience in the implementation of the mandatory provisions provided in SOLAS regulation II-1/3-6, as amended, and the *Revised technical provisions for means of access for inspections* (resolution MSC.158(78)). In particular, taking into account the clarifications provided in MSC.1/Circ.1545 and the interpretations relating to section 3.5 of the annex to resolution MSC.158(78) (MSC.1/Circ.1464/Rev.1, annex, section 2.6), IACS has discussed and agreed to extend the clarification relating to the wording "Adjacent sections of the ladder should be laterally offset from each other by at least the width of the ladder" to the means of access:

- .1 to ballast tanks, cargo tanks and spaces other than fore peak tanks; and
- .2 for inspection of the vertical structure of oil tankers.

4 IACS, having noted that the above clarification relates to cases in which the means of access is provided by a vertical ladder arrangement that is required to be arranged in two or more sections above and below a linking platform (e.g. when the height of the compartment is more than 6 m), agreed that these sections should be fitted so that personnel can safely transfer between them and developed the amendments to IACS UI SC 191, as set out in the annex.

5 IACS members will uniformly implement the amended version of IACS UI SC191 (Rev.7, Corr.1), including the clarification to the interpretations relating to section 3.5 of the annex to resolution MSC.158(78)), on ships contracted for construction on or after 1 July 2016, unless they are provided with written instructions to apply a different interpretation by an Administration on whose behalf they are authorized to act as a recognized organization.

Proposal

6 IACS proposes that the latest amendments to UI SC191, as set out in the annex, should be taken into account by the Sub-Committee when preparing a consolidated draft MSC circular containing the provisions of MSC.1/Circ.1464/Rev.1 and Corr.1, as amended by MSC.1/Circ.1507 and MSC.1/Circ.1545.

Action requested of the Sub-Committee

7 The Sub-Committee is invited to note the information in paragraphs 3 to 5, consider the proposal in paragraph 6, and take action as appropriate.

ANNEX

AMENDMENTS TO IACS UI SC 191*

Technical Provision, resolution MSC.158(78), paragraph 3.5

3.5 Permanent inclined ladders shall be inclined at an angle of less than 70°. There shall be no obstructions within 750 mm of the face of the inclined ladder, except that in way of an opening this clearance may be reduced to 600 mm. Resting platforms of adequate dimensions shall be provided normally at a maximum of 6 m vertical height. Ladders and handrails shall be constructed of steel or equivalent material of adequate strength and stiffness and securely attached to the structure by stays. The method of support and length of stay shall be such that vibration is reduced to a practical minimum. In cargo holds, ladders shall be designed and arranged so that the risk of damage from cargo handling gear is minimized.

MA for access to ballast tanks, cargo tanks and spaces other than fore peak tanks:

For oil tankers:

1 Tanks and subdivisions of tanks having a length of 35 m or more with two access hatchways:

First access hatchway: Inclined ladder or ladders are to be used.

Second access hatchway:

- i. A vertical ladder may be used. In such a case where the vertical distance is more than 6 m, vertical ladders are to comprise one or more ladder linking platforms spaced not more than 6 m apart vertically and displaced to one side of the ladder.

The uppermost section of the vertical ladder, measured clear of the overhead obstructions in way of the tank entrance, is not to be less than 2.5 m but not exceed 3.0 m and is to comprise a ladder linking platform which is to be displaced to one side of a vertical ladder. However, the vertical distance of the upper most section of the vertical ladder may be reduced to 1.6 m, measured clear of the overhead obstructions in way of the tank entrance, if the ladder lands on a longitudinal or athwartship permanent means of access fitted within that range. Adjacent sections of the ladder are to be laterally offset from each other by at least the width of the ladder (see paragraph 20 of MSC/Circ.686 and refer to the interpretation of Technical Provision, resolution MSC.158(78), paragraph 3.13.2 and paragraph 3.13.6); or

- ii. Where an inclined ladder or combination of ladders is used for access to the space, the uppermost section of the ladder, measured clear of the overhead obstructions in way of the tank entrance, is to be vertical for not less than 2.5 m but not exceed 3.0m and is to comprise a landing platform continuing with an inclined ladder. However, the vertical distance of the upper most section of the vertical ladder may be reduced to 1.6 m, measured clear of the overhead obstructions in way of the tank entrance, if the ladder lands

* Tracked changes are created using "strikeout" for deleted text and "underlining" to highlight all new insertions.

on a longitudinal or athwartship permanent means of access fitted within that range. The flights of the inclined ladders are normally to be not more than 6 m in vertical height. The lowermost section of the ladders may be vertical for the vertical distance not exceeding 2.5 m.

2 Tanks less than 35 m in length and served by one access hatchway an inclined ladder or combination of ladders are to be used to the space as specified in 1.ii above.

3 In spaces of less than 2.5 m width the access to the space may be by means of vertical ladders that comprises one or more ladder linking platforms spaced not more than 6 m apart vertically and displaced to one side of the ladder. The uppermost section of the vertical ladder, measured clear of the overhead obstructions in way of the tank entrance, is not to be less than 2.5 m but not exceed 3.0 m and is to comprise a ladder linking platform which is to be displaced to one side of a vertical ladder. However, the vertical distance of the upper most section of the vertical ladder may be reduced to 1.6 m, measured clear of the overhead obstructions in way of the tank entrance, if the ladder lands on a longitudinal or athwartship permanent means of access fitted within that range. Adjacent sections of the ladder are to be laterally offset from each other by at least the width of the ladder (see paragraph 20 of MSC/Circ.686 and refer to the interpretation of Technical Provision, resolution MSC.158(78), paragraph 3.13.2 and paragraph 3.13.6).

4 Access from deck to a double bottom space may be by means of vertical ladders through a trunk. The vertical distance from deck to a resting platform, between resting platforms or a resting platform and the tank bottom is not to be more than 6 m unless otherwise approved by the Administration.

MA for inspection of the vertical structure of oil tankers:

Vertical ladders provided for means of access to the space may be used for access for inspection of the vertical structure.

Unless stated otherwise in table 1 of TP, vertical ladders that are fitted on vertical structures for inspection are to comprise one or more ladder linking platforms spaced not more than 6 m apart vertically and displace to one side of the ladder. Adjacent sections of ladder are to be laterally offset from each other by at least the width of the ladder (paragraph 20 of MSC/Circ.686 and refer to the interpretation of Technical Provision, resolution MSC.158(78), paragraph 3.13.2 and paragraph 3.13.6).

Obstruction distances

The minimum distance between the inclined ladder face and obstructions, i.e. 750 mm and, in way of openings, 600 mm specified in TP 3.5 is to be measured perpendicular to the face of the ladder.

Technical Background

It is a common practice to use a vertical ladder from deck to the first landing to clear overhead obstructions before continuing to an inclined ladder or a vertical ladder displaced to one side of the first vertical ladder.

Reference

For vertical ladders: Paragraph 20 of the annex to MSC/Circ.686.