

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

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

Proposal to amend sections 1.4 and 1.5 of the annex to MSC.1/Circ.1572/Rev.1

Submitted by IACS

SUMMARY

Executive summary: This document proposes revisions to MSC.1/1572/Rev.1 in respect

of the interpretation (including procedures and technical background) of SOLAS regulations II-1/3-6.2.3 and II-1/3-6.3.1

related to permanent means of access.

Strategic direction,

if applicable:

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Output: 7.1

Action to be taken: Paragraph 8

Related document: SDC 10/INF.8

Introduction

1 SOLAS regulation II-1/3-6.2.3 reads:

"The construction and materials of all means of access and their attachment to the ship's structure shall be to the satisfaction of the Administration. The means of access shall be subject to survey prior to, or in conjunction with, its use in carrying out surveys in accordance with regulation I/10."

Background

With regard to the above-mentioned regulation, section 1.4 of MSC.1/Circ.1572/Rev.1 contains the following unified interpretation which IACS members have followed since its publication:

"Interpretation

Inspection

The means of access arrangements, including portable equipment and attachments, should be periodically inspected by the crew or competent inspectors as and when it is going to be used to confirm that the means of access remain in serviceable condition.



Procedures

- Any Company authorized person using the means of access should assume the role of inspector and check for obvious damage prior to using the access arrangements. Whilst using the means of access, the inspector should verify the condition of the sections used by close-up examination of those sections and note any deterioration in the provisions. Should any damage or deterioration be found, the effect of such deterioration should be assessed as to whether the damage or deterioration affects the safety for continued use of the access. Deterioration found that is considered to affect safe use should be determined as "substantial damage" and measures should be put in place to ensure that the affected section(s) are not to be further used prior to effective repair.
- Statutory survey of any space that contains means of access should include verification of the continued effectiveness of the means of access in that space. Survey of the means of access should not be expected to exceed the scope and extent of the survey being undertaken. If the means of access is found deficient the scope of survey should be extended if this is considered appropriate.
- Records of all inspections should be established based on the requirements detailed in the ship's Safety Management System. The records should be readily available to persons using the means of access and a copy attached to the Ship Structure Access Manual. The latest record for the portion of the means of access inspected should include as a minimum the date of the inspection, the name and title of the inspector, a confirmation signature, the sections of means of access inspected, verification of continued serviceable condition or details of any deterioration or substantial damage found. A file of permits issued should be maintained for verification.

Technical background

It is recognized that means of access may be subject to deterioration in the long term due to corrosive environment and external forces from ship motions and sloshing of liquid contained in the tank. Means of access therefore should be inspected at every opportunity of tank/space entry. The above interpretation should be contained in a section of the Ship Structure Access Manual.".

Discussion

- Recently IACS received an inquiry related to the incident involving means of access (PMA) when the surveyor was attending the renewal survey of a 10-year-old bulk carrier in dry dock (SDC 10/INF.8). It was reported that an entire section of the PMA platform had collapsed underneath the attending surveyor while the surveyor was descending to the upper PMA platform after entering the top side wing ballast tank from the main deck access opening. After the incident, an investigation into the PMA on a number of bulk carriers of different ages (5,10 and 15 years) were undertaken resulting in observation of serious wastage, corrosion, and deformation in cargo hold upper PMA platforms.
- After receipt of the inquiry, IACS validated the experience amongst its members and reviewed the above-mentioned unified interpretation. That review demonstrated the need to improve the degree of uniform implementation regarding the interval of inspections of the means of access (to be carried out by the crew or competent inspectors), which is now left to what is specified in the required Part 2 of the Ship Structure Access Manual.

- To address the risks, IACS is of the opinion that a minimum interval of such inspections should be specified in the unified interpretation and, for this purpose, suggests that inspections should be carried out annually; the results of those inspections should be recorded in Part 2 of the Ship Structure Access Manual.
- 6 In addition, IACS suggests the following:
 - .1 regarding the effect of deterioration of PMA arrangements that is to be checked, it should be clarified that such deterioration includes loss of coating and wastage. In addition, the history of repairs carried out should also be recorded in a manner similar to other items, such as details of any discovered deterioration or substantial damage;
 - .2 before the required examinations using the PMA, an inspection to confirm the PMA's condition should be conducted and recorded for each space;
 - .3 all the inspection records of the PMA should be made available to the surveyor of the classification society/recognized organization prior to the survey; and
 - .4 with regard to the requirement for the safe access from the "open deck" to cargo holds, cofferdams, ballast tanks, cargo tanks and other spaces in the cargo area as per paragraph 3.1 of SOLAS regulation II-1/3-6, the "open deck" should be completely exposed to the weather from above or from at least one side, because IACS found few cases of explosions and fires caused by methane leakage from the cargo hold through the cargo hold access hatch; IACS considers there is a need to prevent the gas pockets on the open deck.

Proposal

Accordingly, IACS proposes a draft amendment to sections 1.4 and 1.5 of the annex to MSC.1/Circ.1572/Rev.1, as set out in the annex for consideration of the Sub-Committee.

Action requested of the Sub-Committee

The Sub-Committee is invited to consider the above, the proposal in paragraph 7 and the draft amendments to sections 1.4 and 1.5 of annex to MSC.1/Circ.1572/Rev.1, as set out in the annex; and take action as appropriate.

ANNEX

DRAFT AMENDMENTS TO SECTIONS 1.4 AND 1.5 OF ANNEX OF MSC.1/Circ.1572/REV.1*

"1.4 SOLAS REGULATION II-1/3-6, PARAGRAPH 2.3

Interpretation

Inspection

The means of access arrangements, including portable equipment and attachments, should be periodically annually inspected by the crew or competent inspectors as and when it is going to be used to confirm that the means of access remain in serviceable condition and the inspections should be recorded in Part 2 of the Ships Structure Access Manual. In addition prior to any space examinations that utilized the permanent means of access, an inspection to confirm the condition of the permanent means of access should be recorded for each space.

Procedures

- Any Company authorized person using the means of access should assume the role of inspector and check for obvious damage prior to using the access arrangements. Whilst using the means of access, the inspector should verify the condition of the sections used by close-up examination of those sections and note any deterioration in the provisions. Should any damage or deterioration be found, the effect of such deterioration including loss of coating and wastage should be assessed as to whether the damage or deterioration affects the safety for continued use of the access. Deterioration found that is considered to affect safe use should be determined as "substantial damage" and measures should be put in place to ensure that the affected section(s) are not to be further used prior to effective repair. Substantial damage should be reported in Part 2 of the Ship Structure Access Manual.
- Statutory survey of any space that contains means of access should include verification of the continued effectiveness of the means of access in that space. Survey of the means of access should not be expected to exceed the scope and extent of the survey being undertaken. If the means of access is found deficient the scope of survey should be extended if this is considered appropriate.
- Records of all inspections should be established based on the requirements detailed in the ship's Safety Management System. The records should be readily available to persons using the means of access and a copy attached to the Ship Structure Access Manual. The latest record for the portion of the means of access inspected should include as a minimum the date of the inspection, the name and title of the inspector, a confirmation signature, the sections of means of access inspected, verification of continued serviceable condition or details of any deterioration or substantial damage found and repairs carried out. A file of permits issued should be maintained for verification. Inspection records of permanent means of access should be made available to classification society surveyors prior to survey.

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Tracked changes are indicated using "grey shading" to highlight new insertions and strikethrough" to highlight deletion of the existing texts.

Technical background

It is recognized that means of access may be subject to deterioration in the long term due to corrosive environment and external forces from ship motions and sloshing of liquid contained in the tank, and mechanical damage in cargo hold. Means of access therefore should be inspected at every opportunity of tank/space entry, but at a minimum annually. The above interpretation should be contained in a section of the Ship Structure Access Manual.

1.5 SOLAS REGULATION II-1/3-6, PARAGRAPH 3.1

Interpretation

- Access to a double-side skin space of bulk carriers may be either from a topside tank or double-bottom tank or from both.
- The wording "not intended for the carriage of oil or hazardous cargoes" applies only to "similar compartments", i.e. safe access can be through a pump-room, deep cofferdam, pipe tunnel, cargo hold or double-hull space.
- The wording "open deck" means a deck that is completely exposed to the weather from above or from at least one side.

Technical background

Unless used for other purposes, the double-side skin space should be designed as a part of a large U-shaped ballast tank and such space should be accessed through the adjacent part of the tank, i.e. topside tank or double-bottom/bilge hopper tank. Access to the double-side skin space from the adjacent part rather than direct from the open deck is justified. Any such arrangement should provide a directly routed, logical and safe access that facilitates easy evacuation of the space."