

MARITIME SAFETY COMMITTEE
100th session
Agenda item 6

MSC 100/6/10
11 October 2018
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GOAL-BASED NEW SHIP CONSTRUCTION STANDARDS

Corrective/Improvement Action Plans submitted in response to the findings identified during the first GBS maintenance of verification audit

Submitted by IACS

SUMMARY

Executive summary: This document provides the Corrective/Improvement Action Plans for the non-conformities and common observations raised by the audit team responsible for the first GBS maintenance verification of 12 recognized organizations and IACS

Strategic direction, if applicable: Other work

Output: OW 7

Action to be taken: Paragraph 4

Related document: MSC 100/6/5

Introduction

1 This document is submitted in accordance with the provisions of paragraph 6.12.5 of the *Organization and method of work of the Maritime Safety Committee and the Marine Environment Protection Committee and their subsidiary bodies* (MSC-MEPC.1/Circ.5/Rev.1), and provides information and comments in relation to document MSC 100/6/5 (Secretary-General) providing the final report of the GBS maintenance of verification audit of 12 recognized organizations and IACS' common structural rules for bulk carriers and oil tankers (CSR).

Background

2 In accordance with the *Guidelines for verification of conformity with goal-based ship construction standards for bulk carriers and oil tankers* (resolution MSC.296(87)) (GBS Guidelines), the Secretariat has submitted the GBS verification audit report provided by the audit team that conducted the GBS maintenance of verification audit of 12 recognized organizations and IACS' CSR (MSC 100/6/5).

Corrective Action Plans submitted by IACS

3 In response to the above GBS maintenance of verification audit report, IACS has developed Corrective/Improvement Action Plans for the two non-conformities and four common observations, as set out in annexes 1 and 2, respectively.

Action requested of the Committee

4 The Committee is invited to consider the proposed Corrective/Improvement Action Plans, as set out in annexes 1 and 2, in conjunction with the GBS maintenance of verification audit report provided in document MSC 100/6/5; and take action, as appropriate.

ANNEX 1

CORRECTIVE ACTION PLAN FOR IACS/2018/Maint/NC/1

<p>Submitted to: MSC 100 Date: 12 October 2018</p>	<p>Functional requirement: 4.2.1.1, 4.3.1, 4.2.1.12, 4.3.13</p>
<p>Non-conformity No.: IACS/2018/Maint/NC/1</p>	<p>Observation No.: -</p>
<p>IACS INVESTIGATION:</p> <p>IACS has examined the content of NC/1 and the corresponding IACS replies, and agreed in principle with it. The action plan to rectify the NC/1 was developed as follows:</p> <p>Outline</p> <ol style="list-style-type: none"> 1) Review of Technical Background Report related to URCN1(2014) Pt 1, Ch 9, Sec 3, Tab 3 and Pt 2, Ch 1, Sec 2, [3.3.4]. 2) Selection of additional examples (ships) covering the expected design space in ship size and detail configuration and reporting of additional example calculations in the TB Report. <p>Corrective Action</p> <ol style="list-style-type: none"> 1) Improvement of the Technical Background Report "Fatigue Assessment on Hatch corner" including the addition of example calculations. 2) Creation of a new TB report covering the impact of SN curve in corrosive environment changes on a selected sample of prescriptive and FEM details. 	
<p>DETAILED PLAN:</p> <p>Scope</p> <ol style="list-style-type: none"> 1) Review of Rule text and TB Report. 2) Perform additional example calculations and improve the Technical Background document. <ul style="list-style-type: none"> • Examine and select the vessels to be assessed. • Calculation of fatigue strength with the consideration of the proposed SN-curve. • Develop the Technical Background Report, considering an improved explanation of the penalty factor for corrosive environment. <p>Deliverables</p> <ol style="list-style-type: none"> 1. Technical Background Report including the results of investigation on additional examples. <p>Timescales</p> <ol style="list-style-type: none"> 1) The corrective actions will be performed by end of 2019. 2) Adoption of rule amendments, if required, by end December 2019. 3) Available for submission from January 2020. 	
<p>ANNEXES: None</p>	

CORRECTIVE ACTION PLAN FOR IACS/2018/Maint/NC/2

Submitted to: MSC 100 Date: 12 October 2018	Functional requirement: 11.2.5, 11.3.2
Non-conformity No.: IACS/2018/Maint/NC/2	Observation No.: -
IACS INVESTIGATION: IACS has examined the content of NC/2 and the corresponding IACS replies, and agreed in principle with it. The action plan to rectify the NC/2 was developed as follows: Outline 1) Review of IACS Procedure Vol. 4, in order to clarify how feed-back information from construction and in-service experience systematically feed the rule updating procedures. 2) Release of a new Revision of Vol. 4. Corrective Action Improvement of the IACS Procedure Volume 4 "Procedures for the Maintenance of the Common Structural Rules".	
DETAILED PLAN: Scope 1) Review IACS Procedure Volume 4. 2) Develop new revision of Volume 4 considering: <ul style="list-style-type: none">• Linkage between CSR KC and CSR maintenance work, especially link between KC questions and answers and relevant PT's.• Linkage between the reporting of hull failure incidents following PR2A and the CSR maintenance work, especially how the reports are assessed and how these results are used for improvement of CSR. Deliverables 1. New Revision of IACS Procedure Volume 4. Timescales 1) The corrective actions will be performed by end of 2019. 2) [Adoption of rule amendments, if required, by end December 2019]. Available for submission from January 2020.	
ANNEXES: None	

ANNEX 2

IACS IMPROVEMENT ACTION PLANS FOR ADDRESSING OBSERVATIONS

<p>Submitted to: MSC 100 Date: 12 October 2018</p>	<p>Observation No.: IACS/2018/Maint/OB/1, OB/2, OB/3, OB/4</p>
<p>Improvement Action to address IACS/2018/Maint/OB/1 As shown in page 11 of the Annex to MSC 100/6/5, IACS will revise the rules to clarify the definition z_{SD} to clarify the load point in the formulae where z_{SD} is referred to.</p> <p>Deliverables Rule Changes of IACS CSR for BC&OT to be published at the beginning of 2019.</p> <p>Timescales The action will be performed during the process for 2018 Rule Change Proposal (RCP) of IACS CSR.</p>	
<p>Improvement Action to address IACS/2018/Maint/OB/2 As shown in page 12 of the Annex to MSC 100/6/5, IACS will develop the Technical Background document to justify that the acceptable limits of yielding have been considered in revising the requirement about net connection area of connecting bracket (Pt 2, Ch 1, Sec 3, [1.4.2]).</p> <p>Deliverables New Technical Background document.</p> <p>Timescales Either a status report or the documents will be submitted as a part of future IACS self-assessment documentation package for the maintenance verification audit.</p>	
<p>Improvement Action to address IACS/2018/Maint/OB/3 As shown in page 18 of the annex to MSC 100/6/5, IACS will improve Technical Background documentation and explicitly specify in the rules the protective measures to be taken in order to support and clarify the modified rule requirements.</p> <p>Deliverables Revised Technical Background documents such as TB-Report "Fatigue Assessment on Hatch Corner" and Rule Change.</p> <p>Timescales Either a status report or revised documents will be submitted as a part of future IACS self-assessment documentation package for the maintenance verification audit.</p>	
<p>Improvement Action to address IACS/2018/Maint/OB/4 As shown on page 23 of the annex to MSC 100/6/5, IACS will revise the rules in order to ensure consistency in definitions of NDT/NDE.</p> <p>Deliverables Revised UR Z23 and/or IACS CSR for BC&OT.</p> <p>Timescales Either a status report or revised rules will be submitted as a part of future IACS self-assessment documentation package for the maintenance verification audit.</p>	