



MARITIME SAFETY COMMITTEE  
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Agenda item 5

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## GOAL-BASED NEW SHIP CONSTRUCTION STANDARDS

### Comments on the report of the Pilot Panel on the trial application of the Tier III verification process using IACS Common Structural Rules (CSR)

Submitted by the Republic of Korea

#### SUMMARY

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| <i>Executive summary:</i>  | This document provides comments and proposals regarding the report of the Pilot Panel on the trial application on the Tier III Verification process using IACS Common Structural Rules (CSR). |
| <i>Action to be taken:</i> | Paragraph 9   |
| <i>Related document:</i>   | MSC 83/5/1  |

#### Introduction

1 The Republic of Korea wishes to submit comments and proposals regarding document MSC 83/5/1 on the report of the Pilot Panel on the trial application on the Tier III verification process using IACS Common Structural Rules (CSR). This document is submitted in accordance with the provisions of paragraph 4.10.5 of the Guidelines on the organization and method of work of the MSC and MEPC and their subsidiary bodies (MSC-MEPC.1/Circ.1).

2 The Republic of Korea would first like to congratulate and express its gratitude to the Chairman of the Pilot Panel and the members of his group for their success in finalizing the work which was entrusted to them only a few months ago and for submitting a full set of the final report for the Committee's consideration in time. The group's report in itself shows the professionalism, hard work, and positive co-operation of the members. The Republic of Korea expresses its full support for the report of the Pilot Panel (PP) with some supplementary comments and responses to the enquiries made by the Chairman of the Pilot Panel as presented in the ensuing paragraphs.

#### Procedures for carrying out a Tier III verification process and report format

3 With regard to procedures for carrying out a Tier III verification process and report format, the Republic of Korea:

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- .1 is of the view that a two-thirds majority should be taken in the decision-making process for determining the compliance of the Rules submitted with GBS (MSC 83/5/1, paragraph 10) to ensure that the decision is more widely supported within the Group of Experts;
- .2 would prefer that the Group of Experts for verification work is composed of eleven members since it is envisaged that the amount of work expected of the Group will be enormous due to a large number of applications for verification being made in a short period of time. The sharing of verification work or even the allotment of applications among experts seems to be inevitable to meet the formal requests for verification (MSC 83/5/1, paragraph 10); and
- .3 strongly supports the PP recommendation in relation to the need for sufficient phase-in time for the implementation of GBS requirements for IMO, recognized organizations and relevant industry (MSC 83/5/1, paragraph 12).

### **Information and documentation requirements**

4 With regard to Part B (Information/documentation requirements and evaluation criteria) of the draft guidelines for the verification of compliance with GBS (MSC 83/5/1, annex 2), the following modifications are suggested to make the requirements easily workable:

- .1 in b.1.4 of III.3 – Structural strength: the term “deflection” should be replaced with “excessive deformation” since the deflection may be allowed to give some design flexibility in the integrity of the ship’s structure;
- .2 in b.1.6 of III.4 – Fatigue life: this paragraph should be deleted as the consideration for slamming and vibratory-induced fatigue effect cannot be achieved by current technology;
- .3 in a. (Statement of intent) of III.10 – Design transparency: the term “class” needs to be inserted between the wording “available to” and “the owner and flag State”; and
- .4 in b.2.4 and 4.4 of III.15 – Recycling: the wording “Ship Construction File” needs to be replaced with “Inventory of hazardous materials” to be in line with the International Convention for the Safe and Environmentally Sound Recycling of Ships currently under development.

### **Potential modifications to Tiers I and II**

5 The Republic of Korea supports the PP recommendation for recognized organizations to perform a continuous self-assessment of the effectiveness of Rules and report back to the IMO on a regular basis and, in general, agrees with the contents of “In-service structural monitoring requirement” as presented in annex 3 of document MSC 83/5/1 with preference given to the data collection period of “every five years”. With regard to the IMO instruments to incorporate this structural performance monitoring provision, the Republic of Korea is of the view that this requirement should be included in SOLAS rather than as a new Tier II.16 functional requirement, considering that Tier II in GBS is a set of requirements relevant to the functions of the ship structures to be complied with to meet the Tier I goals (MSC 83/5, paragraph 9). For example, a new paragraph as below may be added to the draft SOLAS regulation II-1/3-[10] (MSC 83/5/2, annex 1):

*“[5] The structural requirements stated herein should be reviewed every five years with structural performance data on corrosion/steel renewal, fractures and other structural failures, including catastrophic failures, to enable continuous reassessment of the adequacy of the Rules in attaining satisfactory structural performance.”*

6 The proposed changes to Tier II – Functional requirements (MSC 83/5/1, annex 4) are supported in general. The title of II.3.3 in our view, however, may be better changed to “Design principles” to give more flexibility to the design.

### **Net scantlings**

7 It is the view of the Republic of Korea that a single unified net scantling approach for the design of ships is too ambitious and does not allow any efficient optimization of structure. The scantlings should be determined based on a rational and technically justified net thickness concept. In addition, the fatigue strength should recognize the changes in steel thickness over the ship’s service life and, therefore, for fatigue calculation, a different net scantlings approach should be allowed.

### **Recommendations for future work**

8 It is understood that the development of a consolidated version of the Tier III verification process should be finalized for conducting a proper trial application of IACS CSR. The Republic of Korea is of the view that the PP should be given more time for completing the consolidated version of the Tier III verification process and for carrying out a more detailed trial application of IACS CSR.

### **Action requested of the Committee**

9 The Committee is invited to consider the above and take action as appropriate.

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