



MARITIME SAFETY COMMITTEE
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GOAL-BASED NEW SHIP CONSTRUCTION STANDARDS

Alternative to the GBS verification process

Submitted by the International Association of Classification Societies (IACS)

SUMMARY

<i>Executive summary:</i>	This document outlines the Rule development and approval process typically used by classification societies recognized by Administrations in compliance with resolution A.739(18) and suggests an alternative GBS verification process.
<i>Strategic direction:</i>	10
<i>High-level action:</i>	10.1
<i>Planned output:</i>	10.1.1 and 10.1.2
<i>Action to be taken:</i>	Paragraph 18
<i>Related documents:</i>	MSC 85/26; MSC 85/WP.5, annex 1; and MSC 86/5/4

Introduction

1 The Committee, at its eighty-fifth session, reviewed the report of the Pilot Panel and continued the discussion on Tier III of the goal-based framework. The Committee did not approve the draft amendments to SOLAS in paragraph 5.71.3 of document MSC 85/26 and invited Member States and international organizations to submit proposals to MSC 86 on an alternative verification process based on self-assessment only.

2 IACS notes with interest, and substantially supports, the submission of document MSC 86/5/4 (Canada, Norway and Sweden). For the Committee's benefit, and to put the GBS verification scheme into perspective, IACS offers additional information on the extensive international review, undertaken by technical experts, which Rules continuously undergo through the Technical Committee review process of classification societies.

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Description of the Rule development process and independent review and approval by classification societies' Technical Committees

3 The mandatory IMO resolution A.739(18) requires that Administrations monitor and verify class-related matters. The key elements of the class-related matters are the publication and systematic maintenance of rules and/or regulations for the design, construction and certification of ships, and the provision of an adequate research capability to ensure appropriate updating of the published criteria. The requirements further state that “the organization should allow participation in the development of its rules and/or regulations by representatives of the Administration and other parties concerned”. The quality of the rule development process is assured by the implementation of an effective internal quality system which is verified and certified by an independent body of auditors recognized by the Administration.

4 While each classification society has its own individual policies towards demonstrating compliance with the above requirements, in general classification societies have maintained a robust process of Rule development, and independent verification and approval of these Rules. Though the details of these individual policies may vary, the common and the central element of this process is the *independent* Technical Committee of a classification society. To support the main Technical Committee and to achieve a wide variety of geographical spread and subject matter input, classification societies establish advisory Sub-Committees in the key parts of the world. The comments on the proposed draft amendments to the Rules received from the Sub-Committees are fed into the main Technical Committee for review and consideration. Depending on society, the Technical Committee either approves the adoption of proposed Rule changes or gives its considered advice on proposed Rule changes to the society.

5 As a typical example, one society reported recently that 74 Rule proposals were considered by their Technical Committee in one year as a result of industry feedback, changes to maritime legislation and input from research and development. Over this one year period it received and considered over 1,200 comments on these proposals from its external regional and country advisory committees worldwide, which demonstrates the extensive involvement of international marine organizations and experts in the Rule revision process.

6 Classification society Rule proposals go through a process that envisages the following general phases (for details refer to IACS submission MSC 86/INF.3):

.1 Rule Development Phase

- identification of the need for the new rules
- define objective and scope of the new rules
- draft the new rule (formula, prescriptive, narrative, analytical, etc.)

.2 Rule Assessment Phase

- calibration and testing of the rule (can be based on trial application to known designs with good or bad service history)
- development of a background document which includes detailed information on the application, intent and impact of the rule

.3 Rule Verification Phase

- review of final rule by people outside of the original development team so that an independent check may be performed

.4 Rule Implementation Phase

- rule is submitted for publication and implementation.

7 The membership of Sub-Committees and Technical Committees provides for the representation of all the main industry stakeholders and legislators. The membership of the Committees also includes representatives of flag Administrations as specified in resolution A.739(18). Each class society's main Technical Committee generally consists of forty (40) or more experts. With the addition of the Sub-Committees, a total of 200 or more experts worldwide may be involved in the Rule review and revision process. In comparison, the 5-7 experts envisaged under the current draft Tier III Verification Guidelines are unlikely to add substantial benefit to this process.

8 On the contrary, IACS is concerned that, given the inherent problems with selecting truly "neutral" and "objective" experts for a Group of Experts, both IMO and the classification societies will have given that very small number of people a disproportionate amount of authority over the whole process of classification Rule development. This runs counter to the idea of giving all interested stakeholders a voice in classification Rule development, as is done through the current classification Technical Committee process. The IMO Group of Experts could essentially become the new "ruling" governance body for classification society Rules. That authority should not be placed in the hands of a very small group of people – whoever they may be.

9 Currently the technical experts on the classification society Committees are prominent representatives from industry and governments with practical experience relevant to the application of classification Rules. Considering the limited pool of possible experts for a Group of Experts it is likely that the same experts will be participating in the Rule review in the Technical Committees, thus compromising their impartiality if they are evaluating Rules with which they have already been involved.

Alternative approach to verification

10 IACS substantially supports the approach proposed by Canada, Norway and Sweden in document MSC 86/5/4, which in our view attempts to place the correct emphasis on the need to balance the necessary technical robustness of the verification process with the cost and resource constraints. It also incorporates the thorough GBS self-assessment step into the current classification society process. The advantage of this is that it will not stifle Rule development with an untenable, costly and time-consuming step that in effect does not add value.

11 When GBS functional requirements are adopted by IMO and implemented by its Member States, it will be a duty of a classification society towards its Technical Committees to demonstrate compliance of its Rules with the IMO GBS. This will be carried out by the preparation of the self-assessment report and its review by the Technical Committee. Once this report is submitted to the Technical Committee it will take on the status of a legal document. It is likely that GBS verification by a small Group of Experts will essentially duplicate this process but utilizing a much smaller number of "experts". These experts will either not have been involved in the Technical Committee process at all, if they are to be truly independent, or their impartiality may be in question if they have participated in the Technical Committee process of that classification society.

12 At the same time it should be noted that there is already a system in place under mandatory resolution A.739(18) that obligates the flag State to monitor and verify class-related matters, and specifically Rule development, of the recognized organizations (ROs) it authorizes.

13 In general, a major RO with the capability to develop classification Rules, is undergoing annually some form of assessments/audits by many of its authorizing Administrations (and the number is expected to grow in the near future). For example, one international classification society has been assessed during one year by the Administrations of Panama, Cyprus, Japan, Finland, Australia, Denmark, Greece, the United Kingdom, the Netherlands, Norway, Canada, Turkey and the United States (in some cases more than once). Some Administrations choose to observe IACS audits (e.g., St. Vincent and the Grenadines, Liberia and the Marshall Islands). EMSA has a random audit plan, but every other year audits Head offices with typically 1 or 2 local offices a year. For ISO:9001-2000 certification, Accredited Certification Bodies undertake, annually, about 10 audits across a classification society's offices of which about half will be marine locations.

In total a classification society will undergo annually more than 850 man-days of assessments – circa 2.5 man-years. Rule development is part of these assessments.

14 Noting this extensive and resource demanding oversight, IACS would suggest that conformity with GBS is undertaken with the involvement of the Administration as required in resolution A.739(18) through the audit of the classification society's Rule development process. In addition to the flag State audit, a classification society would be required to submit to IMO the self-assessment report together with the Rules and supporting documentation/information, which will be open for review at the request of any Administration, subject to intellectual property rights (IPR).

15 As a result of this alternative approach there will be an additional step in the Rule Assessment Phase mentioned in paragraph 6 above as highlighted below:

.1 Rule Assessment Phase

- calibration and testing of the rule (can be based on trial application to known designs with good or bad service history)
- **document IMO GBS Part B self assessment**
- development of a background document which includes detailed information on the application, intent and impact of the rule.

16 To reflect this proposal, the relevant changes to the draft Guidelines (as amended by Canada, Norway and Sweden in document MSC 86/5/4) are offered at annex to this document.

17 Should there be any justified concerns expressed by an Administration regarding the adequacy of the Rules *vis-à-vis* GBS, IACS agrees that there should be a mechanism to carry out detailed verification through an audit scheme as proposed by Canada, Norway and Sweden. However, IACS believes that this should be on a case-by-case basis.

Action requested of the Committee

18 The Committee is invited to note the existing robust Rule development, assessment, verification and implementation process, consider the above alternative proposal for GBS verification and take action accordingly.

ANNEX

REVISED GUIDELINES

The following editorial comments are given to the relevant paragraphs of Part A and Part B proposals included in annex 1 to document MSC 86/5/4 submitted by Canada, Norway and Sweden, showing deletions by ~~double-strike-through~~ and additions with underlining.

PART A

VERIFICATION PROCESS

Scope of verification

1 This part establishes the procedures established under the Convention. It includes sections on initiation and maintenance procedures ~~and the establishment of an audit team.~~

Initiation procedure

Submission

5 The Submitter should provide a technical documentation package ...:

- .6 Any other documentation which in the Submitter's opinion may assist to document compliance with the Standard ~~the audit team (as defined in paragraph 6).~~

~~Audit team~~

(Current paragraphs 6 to 13 are deleted.)

6 [The process for filing documents and notification of "accepted rules" by the Secretary-General is needed here. The same process is to be followed for Rule maintenance with a yearly summary of changes and confirmation that Rules continue to conform to the Standard.]

PART B

INFORMATION/DOCUMENTATION REQUIREMENTS AND EVALUATION CRITERIA

INTRODUCTION

1. This part provides detailed information as outlined in part A. This will also be an essential document for documenting compliance with the Standard ~~the audit team during initial audit.~~ It includes a statement of intent, information and documentation requirements, and evaluation criteria for each Tier II functional requirement.