MSC 90 further develops new approach to ship’s construction

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In its 90th session, the IMO’s Maritime Safety Committee further developed alternative design, formal safety assessment and goal-based standards.

Among the other topics which the MSC 90 debated and concluded on are:

- Development of IMO Guidelines on Alternative Design
- Amendments to the IMO Guidelines for Formal Safety Assessment
- Decisions on Formal Safety Assessments submitted to IMO
- Development of IMO GBS SLA

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Development of IMO Guidelines on Alternative Design

Within the last years, several IMO provisions were opened up for alternative designs, allowing designers to develop solutions alternative to the prescriptive IMO requirements as long as the same safety level is achieved. With respect to the analysis process, the requirements were specified in several MSC Circulars (MSC/Circ.1002, MSC.1/Circ.1212), depending on the respective sectioned opened for alternative design.

In the near future, shipping industries may see additional openings in IMO provisions, for instance, the drafts of the Polar Code and the IGF, which are both currently under development and contain such openings which may produce the need to develop an additional MSC Circular.

In order to overcome this issue and to provide more substantial guidance for all parties involved in the process of approval of alternative designs, Germany and Republic of Korea started an initiative to develop general guidelines based on this matter using the proposal in MSC 86/5/3. This proposal was developed within the EU-funded research project SAFEDOR (2005–2009) and was submitted by the project partner Denmark.

The GBS/FSA working group at MSC 90 decided to develop general guidelines on alternative design based on the proposal in MSC 86/5/3. The work will be commenced with an intercessional correspondence group between MSC 90 and MSC 92. This correspondence group will provide an interim report to MSC 91.

Furthermore, a combined working group will be established at MSC 91 to work on the Goal-Based Standards Safety Level as well as these guidelines.
Amendments to the IMO Guidelines for Formal Safety Assessment

At MSC 90, work on the amendments to the IMO Guidelines on Formal Safety Assessment (FSA, MSC 83/INF.2) was continued. From the perspective of improving environmental safety, the most important aspect here was the introduction of a cost criterion for the evaluation of oil spill-related risk control options (RCO). RCOs are measures that mitigate the probability of an accident, the consequences or both. This cost criterion as introduced into the FSA guidelines was developed in July last year at MEPC 62 (MEPC 62/WP.13).

Additionally, some proposals made by the group of experts (reviewer of an FSA) were introduced in the new draft mainly with respect to the information to be part of an FSA report. The FSA guidelines now also contain updated terms of reference for the group of experts. The updated terms of reference put more focus on the evaluation of the results of an FSA rather than on formal deviations from the guidelines.

The final draft of the new revision of the FSA guidelines will be available soon for final review by the members of the MSC working group. The revision should be finalised at MSC 91.
Decisions on Formal Safety Assessments submitted to IMO

Since a cost criterion for the evaluation of environmental-related risk control option (RCO) is now a part of the FSA guidelines, MSC 90 decided to give a group of experts the task of review.

Another FSA pending review is the FSA on dangerous goods which was also forwarded to the group of experts for review.

MSC 90 decided that the group of experts will hold a three-day meeting before MSC 91.

Finally, MSC decided to forward the RCOs proposed by the FSA on general cargo ships to the responsible sub-committees for final evaluation so that action may be taken as necessary. The FSA on general cargo ships was carried out by an IACS project team and was submitted to IMO in 2010.
Development of IMO GBS SLA

The discussion on the IMO Goal-Based Standards (GBS) started in 2002 and delivered the first results for the goal-based standards for new oil tankers and bulk carriers in 2010. However, these standards are regarded as prescriptive GBS rather than safety-level based.

The discussion on GBS safety level approach (SLA) continued after 2010, mainly driven by German submissions providing proposals for the continuation of the work. Based on these proposals, the GENERIC GUIDELINES FOR DEVELOPING IMO GOAL-BASED STANDARDS (MSC.1/Circ.1394) was finished in 2011.

At MSC 90, Germany presented a further developed proposal for the continuation of the work and the future structure of IMO provisions. The key idea of this proposal was the development of an example for GBS SLA using the current discussion on the revision of SOLAS Ch. III (Life Saving Appliances).

MSC 90 decided in general to follow this proposal and to develop an example for SLA GBS based on the ongoing revision of SOLAS Chapter III. Guidelines for GBS SLA should be developed in parallel. However, the priority of the work was put on the development of the example. Furthermore, it was decided to establish a GBS working group at MSC 91 to consider matters related to the safety level approach and draft guidelines for the approval of alternative designs.