

IMO & CG development

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Terms of reference for the CG (GUIDELINES FOR USE OF FRP WITHIN SHIP STRUCTURES)

.1 determine the possible use of FRP composite structures in the light of SOLAS regulation II-2/17, having regard to regulations II-2/2.1 (Fire safety objectives), II-2/2.2 (Functional requirements) and II-2/2.3 (Achievement of the fire safety objectives);

ToR 2

.2 review available fire testing results and research and methodologies with regard to FRP composite structures in ships, as well as current regulations and relevant applications of FRP composite structures;

ToR 3

.3 develop draft guidelines to be used for assessment and testing of FRP structures;

ToR 4-6

.4 discuss if any relevant new procedures and qualification criteria for fire testing and classification of FRP composite structures are required for use on SOLAS ships;

.5 consider document FP 56/9/7 (IACS) and advise the Sub-Committee accordingly; and

.6 submit a written report to FP 57 (SDC 1)

Applicability of regulation 17

The members of the CG agreed that the general fire safety objectives and functional requirements in regulation 2 must be fulfilled.

- However the view on how to fulfill them differs slightly within the group.
 - 1) Regulation part B-G in SOLAS, verified by R 17 analysis
 - 2) Regulation 17 allows deviations from parts B, C, D, E or G but not from part A. This means that any alternative design must meet the fire safety objectives in Regulation 2, including the functional requirement “.3 restricted use of combustible materials”, and R17 should not be used to alter these prescriptive provisions.


Example

Length of MVZ

- Reg. 2.1.1 ship devided in MVZ
- Reg. 9 regulates the lenght
- Longer zones have been approved acc. R17

- Reg 2.1.3 prescribes restricted use of combustibile materials
- The allowed amount of combustibile materials is than regulated in part B of the chapter.

It could thus be possible to use reg 17 to verify use of combustibile materials above the present prescriptive regulations.



It is however important to realize that an introduction of FRP in ships structures requires new solutions and a thorough analysis of the implications and could not be seen as a reintroduction on how wood was used in the old SOLAS.

ToR 1 Conclusion

The CG has not yet come to agreement about this, since only four members has commented on this.

New schedule

The new schedule will be as follows:

Deliver CG-report to IMO 18 NOV

SDC 1 Start 20 January 2014

Proposals

1. CG proposes to the SDC that the scope of the guidelines shall be broadened to not only cover the use of FRP in structures but also other uses of FRP onboard ships, to gain and collect experience about the use of FRP.
2. Extend the work one year. This could also make it possible to adapt the proposed guideline to incorporate more general use of FRP.



Thank you!