

U.S. Department of  
Homeland Security

United States  
Coast Guard



Commandant  
United States Coast Guard

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16714  
CG-ENG Policy Letter  
No. 01-18  
May 1, 2018

From:  B. J. Plawkins, CAPT  
COMDT (CG-ENG)

To: Distribution

Subj: EQUIVALENCY DETERMINATION – FRP GRATINGS CONFORMING TO ASTM F3059

Ref: (a) Policy File Memorandum on the Use of Fiber Reinforced Plastic (FRP) Gratings and Cable Trays (PFM 2-98)  
(b) ASTM F3059-15 – “Standard Specification for Fiber-Reinforced Polymer (FRP) Gratings Used in Marine Construction and Shipbuilding”  
(c) NVIC 9-97, CH-1 – Guide to Structural Fire Protection  
(d) Title 46 Code of Federal Regulations (CFR) Part 159.010  
(e) NVIC 02-06 – Follow-up Programs for Fire-safety Type-Approved Products

1. Purpose. This policy letter provides guidance on the acceptance of Fiber Reinforced Plastic (FRP) gratings for use on inspected vessels, including mobile offshore drilling units and floating production platforms. The intent of this policy is to afford a clear avenue of compliance with regard to obtaining U.S. Coast Guard (USCG) acceptance for the use of FRP gratings as equivalent to steel. Alternatively, manufacturers wishing to use a different testing standard may demonstrate that their FRP gratings meet an equivalent level of safety on a case-by-case basis.
2. Directives Affected. Reference (a) is hereby superseded.
3. Discussion.
  - a. Passive fire protection, such as Structural Fire Protection (SFP), reduces the probability of ignition, limits the spread of the fire, and reduces the severity of fire through the specification of materials and the construction of boundaries. USCG regulations pertaining to SFP onboard inspected vessels often require the use of steel or equivalent materials (e.g. 46 CFR 108.133).
  - b. Previously, the Coast Guard allowed FRP gratings that met the standards test method prescribed in Policy File Memorandum (PFM) 2-98 to be used in lieu of steel. However, recently we have become aware that this test method is flawed because it does not always produce gratings with fire resistance equivalent to steel.

- c. American Society for Testing and Materials (ASTM) International has published a testing standard for FRP gratings used in marine construction (reference (b)). The USCG has determined that FRP gratings that meet reference (b) are equivalent to steel gratings for use in some locations, as specified in Table 2.17.1 in reference (c). Reference (c) should be used, in lieu of ASTM F3059-15 Table 1, to identify authorized locations where FRP gratings may be installed.
  - d. As such, ASTM F3059 certified products will not require USCG type approval for FRP gratings under approval series 164.040.
  - e. Existing FRP grating type approvals that have been granted under 164.040 and through testing in accordance with PFM 2-98 will remain valid until they expire or two years from the date of this policy letter, whichever is longer.
4. Action.
- a. FRP gratings that are listed and labeled as meeting ASTM F3059 by an independent laboratory acceptable to the USCG, in accordance with reference (d), for testing for Approval Series 164.040 will not need USCG type approval. A list of these laboratories is available at <http://cgmix.uscg.mil/eqlabs>.
  - b. Table 2.17.1 in reference (c) should be used, in lieu of ASTM F3059-15 Table 1, to identify authorized locations where FRP gratings may be installed.
  - c. The USCG will no longer issue type approvals for FRP gratings under Approval Series 164.040.
  - d. Unless otherwise notified by Commandant (CG-ENG-4), currently issued 164.040 type approvals will remain valid until they expire, or two years from the date of this policy letter, whichever is longer.
  - e. Independent testing laboratories may apply for USCG acceptance per reference (d) for the purposes of ASTM F3059 testing and conformity assessment. Independent labs must have a follow-up program meeting the requirements of sections 4.1 through 4.4 and 4.6 of reference (e).
5. Disclaimer. This policy is neither a substitute for applicable legal requirements, nor is in itself a rule. It is neither intended to nor does it impose legally binding requirements on any party. It represents the USCG's current position on this topic and may assist industry, mariners, the general public, and the USCG, as well as other federal and state regulators, in applying statutory and regulatory requirements. Alternative approaches for complying with these requirements may be considered. Information should be made available to Commandant (CG-ENG-4) to show that the approach satisfies the requirements of the applicable statutes and regulations.

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6. Questions. Questions or concerns regarding this policy may be directed to Commandant (CG-ENG-4) at [typeapproval@uscg.mil](mailto:typeapproval@uscg.mil).

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All Sectors/MSUs/MSDs  
USCG accepted laboratories for testing for approval series 164.040  
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