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CG-ENG
Policy Letter 01-20
June 23, 2020


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COMDT (CG-ENG)

To: Distribution

Subj: THIRD PARTY FOAM CONCENTRATE ANALYSIS

1. Purpose. This policy letter provides guidance for the use of U.S. Coast Guard accepted independent laboratories for the analysis of foam concentrate samples from marine fixed foam fire extinguishing systems. The guidance is applicable to tank vessels and mobile offshore drilling units undergoing certification and periodic inspections as described below.
2. Background.
 - a. The U.S. Coast Guard has statutory authority under Title 46, U.S. Code, Section 3306(a) to prescribe regulations for the design, construction, performance, testing, carriage, use, and inspection of firefighting equipment (including foam fire extinguishing systems) on commercial vessels.
 - b. As part of a tank vessel's certification and periodic inspections under 46 CFR § 31.10-18(c), a representative sample of the foam concentrate carried on a vessel must be analyzed by the foam concentrate's manufacturer. The analysis must include a determination of specific gravity, pH, water dilution, and solid content. The results of the analysis must appear on a certificate issued by the manufacturer. A similar regulation for foam systems on mobile offshore drilling units is set forth in 46 CFR § 107.235(b)(4), which provides for sampling and certification by the foam concentrate's manufacturer or its authorized representative.
 - c. Some manufacturers of U.S. Coast Guard type approved foam extinguishing systems are no longer in business, while their foam fire extinguishing systems have remained in service on inspected vessels, making it impossible for the manufacturers to analyze their foam concentrates in compliance with the regulations.
 - d. The U.S. Coast Guard has accepted independent laboratories to test foam extinguishing systems and to analyze foam concentrates. These laboratories are accepted under 46 CFR Subpart 159.010, based on the U.S. Coast Guard's review of the laboratory's experience, independence, procedures, facilities, apparatus, instruments, and personnel.
 - e. Under 46 CFR §§ 30.15-1(a) and 108.105(a), the U.S. Coast Guard has the authority to approve a substitute procedure that is equivalent to and at least as effective as a provision set forth in Subchapters D and I-A, respectively.

3. Discussion.

- a. Independent laboratories accepted by the Commandant for testing of foam concentrates during the approval process have the requisite capability and expertise to test in-service foam concentrates. This competency is demonstrated during the process for acceptance, according to 46 CFR § 159.010.
 - b. Accepting testing by U.S. Coast Guard accepted independent laboratories will provide an option to vessel owners and operators when the concentrate’s manufacturer or authorized representative is unavailable.
 - c. Accordingly, the Commandant (CG-ENG) deems foam concentrate analyses conducted by U.S. Coast Guard accepted independent laboratories to be equivalent to the analyses performed by the foam concentrate’s manufacturer or authorized representative for the purposes of a vessel’s certification and periodic inspections if the foam concentrate’s manufacturer is not available to conduct the tests required by the regulations.
4. Action. For certification and periodic inspection of vessels with foam firefighting systems, i.e. tank vessels and mobile offshore drilling units, the U.S. Coast Guard will accept a certificate of the analysis of a foam concentrate sample from a U.S. Coast Guard-accepted independent laboratory, in lieu of such a certificate from the foam concentrate’s manufacturer or authorized representative if the foam concentrate’s manufacturer is not available to conduct the tests required by the regulations.
5. Additional Considerations. Laboratories accepted by the Coast Guard to conduct foam analyses as part of the periodic inspections of vessels are set forth in the Coast Guard’s Maritime Information Exchange (CGMIX) under approval series “Foam Systems – 162.033,” and include the phrase “Foam Concentrates” under “Additional Comments.” CGMIX can be accessed at <http://cgmix.uscg.mil>.
6. Disclaimer. The guidance in this policy letter is not a substitute for applicable legal requirements and is not a regulation. It is not intended to impose legally binding requirements on any party. This guidance represents the U.S. Coast Guard’s current thinking on this topic and may assist industry, mariners, the public, and the Coast Guard, as well as other Federal and state regulators, in applying statutory and regulatory requirements. An alternative approach for complying with these requirements is acceptable, if that approach satisfies the requirements of the applicable statutes and regulations.
7. Changes. This policy will be revised as necessary. It will be available with any changes on the CG-ENG portal website at <https://cg.portal.uscg.mil/units/cgeng4/SitePages/Home.aspx>
8. Questions. Questions concerning equipment approval should be directed to Commandant (CG-ENG-4), Commercial Regulations and Standards Directorate, Office of Design and Engineering Standards, Lifesaving and Fire Safety Division at TypeApproval@uscg.mil.

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