Federal Aviation Administration

National Part 139 CertAlert

AdvisoryCautionary**Non-Directive**Advisory**Cautionary**Non-Directive**Advisory**Cautionary**Non-Directive**

Date:	**6/1/2021**	**No. 21-01**
To:	**All Certificated Part 139 Airports and Aircraft Rescue and Firefighting (ARFF) Departments**	
Subject:	**Aqueous Film Forming Foam (AFFF) Testing at Certificated Part 139 Airports**	
Point of Contact:	Marc Tonnacliff, AAS-300, 202-267-8732 Email: marc.tonnacliff@faa.gov	

1. **Purpose.** This CertAlert provides updated information and recommendations to airport operators about optional equipment for use in testing Aqueous Film Forming Foam (AFFF) systems on Aircraft Rescue and Firefighting vehicles. This guidance has been prepared in response to a directive in the FAA Reauthorization Act of 2018, described in further detail below, and it does not revise or replace any previously issued guidance other than that noted in the Cancellation paragraph below.

   This guidance is not legally binding in its own right, and the Agency will not rely on it as a separate basis for affirmative enforcement action or other administrative penalty. Furthermore, conformity with the guidance document (as distinct from existing statutes and regulations) is voluntary only, and nonconformity will not affect rights and obligations under existing statutes and regulations.

2. **Cancellation.** This CertAlert cancels CertAlert 19-02, *Aqueous Film Forming Foam (AFFF) Testing at Certificated Part 139 Airports,* dated October 29, 2019.

3. **Background**. Title 14 Code of Federal Regulation (CFR) Part 139 requires airport operators to maintain their ARFF vehicles and their fire suppression operating systems. To help ensure their operability, the FAA recommends vehicle system testing occurs within the 6-month period before the airport's periodic airport certification safety inspection. Airports must maintain proper successful documentation of the testing and have it available during the periodic inspection. If the airport operator does not conduct testing within this interval, the FAA will require the airport operator to test AFFF during the airport's periodic inspection with those vehicles identified to meet the ARFF Index. Testing during the inspection may also include an analysis by refractometer or conductivity meter (as referenced in the National Fire Protection Association Standard 412). This testing ensures the vehicle is proportioning the AFFF and water correctly and within tolerance and demonstrates that the operator is knowledgeable about the equipment.

Testing the system is an integral part of maintaining ARFF vehicles in optimal condition for an emergency response.

Currently, all certificated Part 139 airports must use foams that meet military specifications (MIL-PRF-24385), listed on the Navy's Quality Product Database (QPD) website:

https://qpldocs.dla.mil/search/parts.aspx?qpl=1910&param=QPL-24385&type=256

There is growing concern over the use and discharge of AFFF at airports. The molecular composition of specification MIL-PRF-24385 contains a chemical compound that may potentially contaminate drinking water. This concern led to the inclusion of a mandate within the FAA Reauthorization Act of 2018 (enacted October 5, 2018) directing the FAA to stop requiring the use of fluorinated foam no later than 3 years from the date of enactment (or on October 4, 2021).

Previously, the FAA Technical Center initiated research on three different types of AFFF testing equipment that do not require dispensing of foam. A fourth system has subsequently gone through testing and has been approved. The FAA will accept use of these systems, shown in paragraph 4(a) below, as options to test the AFFF function on ARFF vehicles.

The Office of Airport Programming and Planning signed Policy Guidance Letter 19-01, *Aqueous Film Forming Foam (AFFF) Input-Based Testing Equipment*, in June 2019 to address the funding eligibility of equipment, including airport rescue and firefighting truck modifications, to install in-line proportioner testing systems for AFFF.

4. Recommendations. The FAA recommends the following to airport operators:

a. Consider using one of the following AFFF testing systems, accepted by the FAA for immediate use, to satisfy the Part 139 testing requirement while minimizing any possible environmental impact:

   a. Eco-Logic System from E-One
   b. NoFoam System
   c. Oshkosh Eco EFP (Electronic Foam Proportioning) System
   d. Rosenbauer FIXMIX 2.0E Input-Based Proportioning Test System

   Note: Input-based tests done by the FAA had a greater correlation to output-based tests at a 3-percent proportioning rate than at a 6-percent proportioning rate. Confirmation testing performed by the vendor at delivery/installation that compares input- and output-based tests may help offset this difference by establishing reference values representing the current state of the vehicle. Therefore, the FAA highly recommends airports using the 6-percent foam proportioning rate have the vendor perform this confirmation testing at the time of delivery.

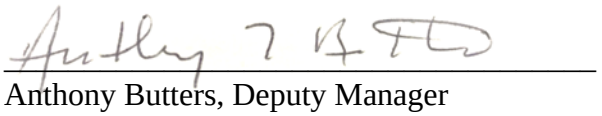
b. Consider establishing local Standard Operating Guidelines/Standard Operating Procedures (in conjunction with your local or state environmental regulatory organizations) to identify a suitable location/storage container to discharge AFFF for training and/or testing to ensure the functionality of the foam proportioning system on each ARFF vehicle.

c. Consider establishing safe and environmentally effective handling and disposal procedures during testing and re-servicing of each ARFF vehicle with AFFF.

d. Periodically visit the FAA ARFF webpage for further guidance: https://www.faa.gov/airports/airport_safety/aircraft_rescue_fire_fighting/

e. Read the FAA Technical Center Report on Input-Based Foam Proportioner Testing, released on July 2, 2019 (available on the FAA ARFF webpage referenced above).

f. Consider contacting your ARFF vehicle manufacturer for information on next steps and vehicle modifications to begin using these optional testing systems.



Anthony Butters, Deputy Manager
Airport Safety and Operations Division, AAS-300

6/1/2021
Date