Fire Fighting Equipment and Foam: PFAS FAQs
Revision Date: 12/21/2023

1. **Which fire foam is authorized for use by Part 139 airport operators? Please offer an instance of an accepted alternative foam.**

   Before the expiration of the one-year exemption granted by the FAA for the phase-out of PFAS chemicals, operators of Part 139 airports have the option to use Aqueous Film Forming Foam (AFFF) that complies with military specifications or an approved alternative foam. While the Office of State Fire Marshal (OSFM) does not endorse any specific firefighting foam, it must meet military specifications for approval. Here is an example of foam that has been approved for the transition:

   Perimeter Solutions SOLBERG Arctic 3% Mil-Spec AFFF

2. **What is the deadline California airports have been provided for the transition of their aircraft fire and rescue equipment to the new F3 fluorine-free foam?**

   The deadline for California airports to transition their aircraft fire and rescue equipment to the new F3 fluorine-free foam is September 13, 2024.

3. **How do I dispose of firefighting foams containing PFAS?**

   ASCE published a peer reviewed journal article to reduce PFAS concentrations from solutions of dilute aqueous film-forming foam (AFFF). According to this article, supercritical water oxidation provided by Battelle's PFAS Annihilator, Aquarden Technologies, and 374Water have been used successfully to reduce the PFAS firefighting foam to trace amounts of residuals.

4. **Is there any PFAS-free alternative to AFFF foams?**

   Yes. There are PFAS-free alternatives to AFFF foam available in the market.

5. **I have an aircraft hangar that has a foam concentrate replacement for AFFF proposed. 2016 NFPA 409, 7.6.1.1 states that AFFF shall be used on closed-head foam-water systems. The next cycle of NFPA does not appear to address the changes required by SB 1044. Does the State Fire Marshal have guidelines for an approved alternative to AFFF?**

   SB-1044 does not affect aircraft hangers if the inclusion of PFAS chemicals is required by federal law. Your hanger should fall under the federal jurisdiction at the airport and firefighting of aircraft. Please see below:

   Section 13061 (b)(2):

This subdivision does not apply to any manufacture, sale, distribution, or use of class B firefighting foam for which the inclusion of PFAS chemicals is required by federal law, including, but not limited to, Section 139.317 of Title 14 of the Code of Federal Regulations. If a federal requirement to include PFAS chemicals in class B firefighting foam is revoked after January 1, 2021, this subdivision shall not apply for one year after the requirement is revoked.

Section 13061 (b)(3):
Paragraph (1) does not apply until January 1, 2024, to any part of a facility that does both of the following: (A) Uses a fixed foam fire suppression system for class B fires. (B) Has in place a system designed for 110 percent containment of any expected discharge volume.

6. **Can I utilize the Class A foam in the wildland setting?**

   All wildfire chemicals, aerials, or ground application must be approved for use by Wildland Fire Chemical Systems (WFCS) and placed on the United States Forest Service (USFS) QLP list. CAL FIRE only purchases Class A foam from approved suppliers. See link for more information.

7. **Has an alternative Class B fire foam (like SFFF) been approved by regulatory agencies or industry work groups like NFPA, API, etc.?**

   We have been notified that companies have developed foams that meet the UL standard 162. The 2016 edition of NFPA 11 requires listed or approved components to help ensure the adequate performance of components in the fire protection system. The listing process involves a plethora of testing to come to a conclusion on acceptance performance. These tests can include but are not limited to the following: hydrostatic testing, corrosion resistance, and fire test performance. The test results as a whole help to answer the question, “will it work?”

8. **What is the “110% containment” based off? Is it based on the total amount of PFOS/PFAS onsite?**

   A total of 110% containment for spilled materials and containment of the fire foam is required. In essence, no fire foam is to enter the environment via runoff, ground saturation, facility drain off, etc. Foam cannot reach soil or soil water interface for containment.

9. **Is containment meant to be kept within the property line?**

   Yes, until the material is collected and sent off-site for destruction/disposal and properly documented per regulation.

10. **Regarding the intentional discharge of PFAS and the 5-day notification, is this inclusive of when we need to test our systems per NFPA recommendations to meet local fire ordinances?**

    If you intend to discharge the material, you must notify our office via PFASNotification@fire.ca.gov. This is for all discharges of AFFF with PFOS added.

11. **Are you issuing exemption letters to operators of PFAS systems regarding the 1 year and 5 years NFPA testing requirement?**

    Please see NFPA Annex E Foam Environmental Issues and Section E.3.3 specifically to answer your questions on testing and alternatives to meet requirements.