



CAL FIRE - OFFICE OF THE STATE FIRE MARSHAL

Information Bulletin 24-007

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Compliance with Senate Bill (SB)-1044 Restrictions on Aqueous Film-Forming Foam (AFFF) and Requirements for Heliports

SB-1044 Restrictions on AFFF:

SB-1044 (Allen, 2020) restricts the use of AFFF in most California facilities. Facility owners must transition to fluorine-free foam unless exempt under Section 13061(b)(2) of the Health and Safety Code (HSC).

Requirements for Heliports and Helistops:

Regulations addressing aircraft-related occupancies and aviation facilities, which include heliports and helistops, are contained within the California Code of Regulations, Title 24 (CCR, Title 24), California Building Code (CBC), and the CCR, Title 24, California Fire Code (CFC). Additional requirements may be found within nationally recognized standards such as National Fire Protection Association (NFPA) 418, as adopted by California.

Firefighting Foam Requirements According to NFPA 418:

The use of firefighting foam, according to NFPA 418 Section 5.7.6.2, mandates that foam concentrates used in fixed systems must be listed under Underwriters Laboratory (UL) 162 and included on the Military Specification, MIL-F-24385 qualified products list or an equivalent.

Currently, no fluorine-free foams are certified for both UL 162 and MIL-F-24385. However, Section 1.3.1 of NFPA 418 provides a new technology clause, which permits alternative arrangements, provided the level of safety prescribed by this standard is not lowered.

Exemption for Operators Under Federal Requirements:

Under Section 13061(b)(2) of the HSC, operators may be exempt from SB-1044's restrictions on AFFF if federal regulation, such as Section 139.317 of Title 14 of the Code of Federal Regulations (CFR), mandates the use of perfluoroalkyl and polyfluoroalkyl substances (PFAS). This exemption remains valid until one year after the federal requirement is revoked.

To qualify for this exemption under Section 139.317 of Title 14 of the CFR, airports handling scheduled passenger flights with aircraft seating more than 9 passengers or unscheduled flights with aircraft seating at least 31 passengers must obtain an Airport Operating Certificate from the Federal Aviation Administration (FAA). Heliports and similar facilities do not qualify as Part 139 operators unless they meet specific criteria. For further information, please refer to the guidelines in 14 CFR Part 139, Certification of Airports.



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Request for Alternative Means of Protection:

Both CCR Title 24 and NFPA 418 permit the use of alternative systems that meet or exceed the safety levels.

Proposals for alternative means of protection shall be in accordance with 2022 CCR Title 24, Part 2 Volume 1, CBC Section 1.11.2.4. This section outlines what the owner or their authorized representative must submit in a formal request to the appropriate enforcing agency. This request shall be accompanied by detailed documentation demonstrating that the proposed alternative meets or exceeds the safety levels provided by the standard methods outlined in the code.

NFPA 418 Section 1.3.1 allows for new technologies or alternative arrangements, provided the level of safety prescribed by this standard is not lowered. This performance-based approach facilitates the consideration of alternative fire protection solutions that meet the safety objectives outlined by NFPA 418 and align with fluorine-free foam requirements under SB-1044.

To ensure compliance with SB-1044 and to meet the fire safety standards outlined in CCR Title 24 and NFPA 418, particularly when fluorine-free foams are used as alternatives to traditional foam concentrates, the following steps should be undertaken until a fluorine-free foam is certified for UL 162, and MIL-F-24385, or an equivalent standard.

Compliance Steps:

- 1. Design Preparation:**
 - a. Have a licensed professional engineer with experience in fire protection engineering, fire hazards, and risk assessments prepare the alternative design.
- 2. Submission:**
 - a. Submit the design to the Authority Having Jurisdiction (AHJ) for review and approval.
- 3. Approval Process:**
 - a. The AHJ will review and approve the design based on its adherence to the performance-based approach.



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Conclusion:

In summary, SB-1044 imposes restrictions on the use of Aqueous Film-Forming Foam (AFFF) in California facilities, mandating a transition to fluorine-free alternatives unless exempt under Section 13061(b)(2) of the HSC.

Both CCR Title 24 and NFPA 418 allow for alternative fire protection systems that meet or exceed safety standards. To comply with SB-1044 and meet fire safety standards when using fluorine-free foams, the following steps should be followed until such foams are certified for UL 162, and MIL-F-24385 or an equivalent standard:

1. Design Preparation: Engage a licensed professional engineer experienced in fire protection engineering, fire hazards, and risk assessments prepare the alternative design.
2. Submission: Submit the design to the Authority Having Jurisdiction (AHJ) with the required documentation.
3. Approval Process: The AHJ will assess and approve the design based on its adherence to the performance-based approach.

For Questions and Additional Information:

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Reference Documents:

- 2022 CCR, Title 24, Part 2 Volume 1, CBC Section 412.7: This section outlines the design, construction, and operational requirements for aviation-related infrastructure, ensuring compliance with safety and fire protection standards.
- 2022 CCR, Title 24, Part 9, CFC Section 2007: This section provides specific fire safety requirements for helistops and heliports, detailing essential operational and safety measures to address fire risks associated with these facilities.
- 2016 NFPA 418, Standard for Heliports
- 14 CFR Part 139, Certification of Airports guidelines