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REVISED MEMORANDUM

To: House Committee on Human Services

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Date: April 28, 2021

Subject: State Authority to Prohibit the Use of Fluorinated Firefighting Foam at Burlington International Airport

Question Presented

Can Vermont adopt legislation prohibiting the use of fluorinated firefighting foam at Burlington International Airport?

Short Answer

Not at the present time. Existing airport safety regulations adopted pursuant to the Federal Aviation Act require Burlington International Airport to have at least one firefighting vehicle that can dispense aqueous film forming foam (AFFF) approved by the Federal Aviation Administration (FAA). While the military specification standard that the FAA uses (MIL-PRF-24385) does not specifically require the use of foams with fluorinated surfactants,[1] at the present time only fluorinated foams have been approved to meet that standard.[2] However, current federal law requires the FAA to cease requiring

[1] *See* MIL-PRF-24385F(SH) w/ AMENDMENT 4, § 3.2 (updated April 7, 2020); *available at*: https://quicksearch.dla.mil/Transient/76F5B06474C34BA99F15DCBB6FB3E3B3.pdf ("Concentrates shall consist of surfactants plus other compounds . . ."). Table I of the specification establishes maximum concentrations of PFOA and PFOS and §§ 4.7.8 and 4.7.16 require that the fluorine content be determined, but the standard does not explicitly require that any PFAS be used as a component of the AFFF.

[2] *See* MIL-PRF-24385F, § 6.6 ("The DoD's goal is to acquire and use a non-fluorinated AFFF formulation or equivalent firefighting agent to meet the performance requirements for DoD critical firefighting needs. The DoD is funding research to this end, but a viable solution may not be found for several years. In the short term, the DoD intends to acquire and use AFFF with the lowest demonstrable concentrations of two particular per- and PFAS; specifically PFOS and PFOA. The DoD intends to be open and transparent with Congress, the Environmental Protection Agency (EPA), state regulators, and the public at large regarding DoD efforts to address these matters. AFFF manufacturers and vendors are encouraged to determine the levels of PFOS, PFOA, and other PFAS in their products and work to drive these levels toward zero while still meeting all other military specification requirements."). *See also* Strategic Environmental Research and Development Program-Environmental Security Technology Certification Program; DoD-Funded Research on AFFF; *available at*: https://serdp-estcp.org/Featured-Initiatives/Per-and-Polyfluoroalkyl-Substances-PFASs/DoD-AFFF-Page/DoD-AFFF-Page/(language)/eng-US.

the use of fluorinated firefighting foam on or before October 4, 2021, which is before the section related to class B firefighting foam in S.20 would take effect.[3]

Federal Airport Safety Regulations and Preemption of State Law

Burlington International Airport is one of two Vermont airports that are covered by 14 C.F.R. Part 139, which establishes rules for the certification and operation of airports serving scheduled passenger flights utilizing aircraft with a capacity of at least nine passengers or unscheduled passenger flights utilizing aircraft with a capacity of at least 31 passengers.[4] Federal regulations prohibit an airport that is subject to Part 139 from operating "without an Airport Operating Certificate or in violation of that certificate, the applicable provisions, or the approved Airport Certification Manual."[5] According to the FAA, Burlington International Airport falls under Airport Rescue and Firefighting Index B, which requires the Airport to maintain at least one firefighting vehicle that can dispense AFFF.[6] Specifically, the Airport must maintain either:

> (1) One vehicle carrying at least 500 pounds of sodium-based dry chemical, halon 1211, or clean agent **and** 1,500 gallons of water and the commensurate quantity of AFFF for foam production.
>
> (2) Two vehicles—
>
> (i) One vehicle carrying the extinguishing agents as specified in paragraphs (a)(1) or (a)(2) of this section; **and**
>
> (ii) One vehicle carrying an amount of water and the commensurate quantity of AFFF so the total quantity of water for foam production carried by both vehicles is at least 1,500 gallons.[7]

At present, the FAA only permits the use of AFFF that meets the MIL-PRF-24385 specification and is listed on the U.S. Navy's Qualified Products Database website.[8] While the military specification does not specifically require the use of PFAS, [9] there are currently no fluorine-free foams that have been approved to meet that specification.[10]

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[3] FAA Reauthorization Act of 2018; Pub. L. 115-254, § 332; *available at*: https://www.congress.gov/115/plaws/publ254/PLAW-115publ254.pdf#page=89.

[4] *See* 14 C.F.R. § 139.1; *see also* Part 139 Airport Certification Status List, eff. March 25, 2021; *available at*: https://www.faa.gov/airports/airport_safety/part139_cert/media/part139-cert-status-table.xlsx. The other Vermont airport that is subject to Part 139 is Rutland-Southern Vermont Regional Airport.

[5] 14 C.F.R. § 139.101.

[6] *See* 14 C.F.R. § 139.315; *see also* Part 139 Airport Certification Status List, eff. March 25, 2021. Because of the smaller size of the aircraft that it serves, Rutland-Southern Vermont Regional Airport falls under Index A, which does not require the Airport to maintain a firefighting vehicle that can dispense fluorinated firefighting foam.

[7] 14 C.F.R. § 139.317 (emphasis added).

[8] *See* Federal Aviation Administration National Part 139 CertAlert 19-02; Aqueous Film Forming Foam (AFFF) Testing at Certificated Part 139 Airports; page 2; *available at*: https://www.faa.gov/airports/airport_safety/certalerts/media/part-139-cert-alert-19-02-AFFF.pdf. *See also*: U.S. Dept. of Defense, Qualified Products Database for Governing Specification MIL-PRF-24385F(4) (updated Jan. 26, 2021); *available at*: http://qpldocs.dla.mil/search/parts.aspx?qpl=1910&param=QPL-24385&type=256.

[9] *See* Note 1.

[10] *See* Note 2.

The Federal Aviation Act preempts state laws attempting to regulate airport safety. The Second Circuit Court of Appeals, which is the federal appeals court for Vermont, recently addressed the issue of preemption in relation to a Connecticut statute that prohibited Tweed New Haven Airport from extending the length of a runway to come into compliance with federal safety requirements necessary to "allow for the safe use of larger aircraft, allow flights with no seating restrictions, allow more passengers on each airplane, and allow service to more destinations."[11] In its decision finding that Connecticut's law was preempted, the Second Circuit wrote:

> The [Federal Aviation Act] "was enacted to create a uniform and exclusive system of federal regulation in the field of air safety . . .. [It] was passed by Congress for the purpose of centralizing in a single authority . . . the power to frame rules for the safe and efficient use of the nation's airspace." With these objectives in mind, we have held that the [Federal Aviation Act] impliedly preempts the entire "field of air safety." Accordingly, "[s]tate laws that conflict with the [Federal Aviation Act] or sufficiently interfere with federal regulation of air safety are . . . preempted."[12]

Under the Act, the FAA has established specific requirements for airport rescue and firefighting, including the provision that requires Burlington International Airport to have at least one firefighting vehicle that is capable of dispersing AFFF that meets the FAA standards discussed above. While in many instances the State can regulate both fire safety and the National Guard while it is operating in state status, in this case the Federal Aviation Act preempts the State from adopting and enforcing a law that conflicts with the requirements of 14 C.F.R. Part 139 and the FAA standards implementing those regulations. Until a fluorine-free foam is approved by the FAA for use at Part 139 airports, the State cannot prohibit the National Guard's firefighting unit at Burlington International Airport from using fluorinated firefighting foam.

Both the current draft of S.20 and the version that passed the Senate include language in 18 V.S.A. § 1663 that specifically addresses this issue by permitting the "manufacture, sale, or distribution of class B firefighting foam" containing PFAS in instances where it is required pursuant to federal law, including in relation to Burlington International Airport.

Recent Federal Developments

While the State is currently preempted from prohibiting the use of fluorinated firefighting foam at Burlington International Airport, recent developments at the federal level may not only reduce or eliminate the use of fluorinated firefighting foam at the Airport, but could permit the use of fluorine-free firefighting foam before the section of S.20 that relates to class B firefighting foam takes effect.

In the FAA Reauthorization Act of 2018, Congress directed the Federal Aviation Administration to cease requiring the use of fluorinated firefighting foam on or before

[11] *Tweed-New Haven Airport Authority v. Tong*, 930 F.3d 65, 69 (2d Cir. 2019), cert. denied, 140 S. Ct. 2508 (2020).
[12] *Tweed*, 930 F.3d at 74.

October 4, 2021.[13] While both the FAA and the Department of Defense are currently researching fluorine-free foams, they have yet to identify any fluorine-free foams that meet MIL-PRF-24385.[14] The FAA has, however, approved three different types of testing equipment that will enable firefighting vehicles to be tested in relation to the Airport's periodic airport certification safety inspection without dispersing fluorinated foam.[15]

Congress also directed the Secretary of Defense in the National Defense Authorization Act for Fiscal Year 2020 to prohibit the uncontrolled release of fluorinated firefighting foam except during an emergency response or "for the purposes of testing of equipment or training of personnel, if complete containment, capture, and proper disposal mechanisms are in place to ensure no [fluorinated firefighting foam] is released into the environment."[16] In addition, § 322 of that act provides that "Not later than January 31, 2023, the Secretary of the Navy shall publish a military specification for a fluorine-free fire-fighting agent for use at all military installations and ensure that such agent is available for use by not later than October 1, 2023."[17]

Thus, while Vermont cannot currently prohibit the use of fluorinated AFFF at Burlington International Airport, Congress has taken multiple steps since 2018 towards eliminating the use of fluorinated firefighting foam at airports and by the military. Assuming the present federal timelines do not change, the State could potentially prohibit the use of fluorinated AFFF at Burlington International Airport as soon as the FAA approves a fluorine-free foam, which is currently required to occur no later than this October.

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[13] *See* Note 3.
[14] Federal Aviation Administration National Part 139 CertAlert 19-01; Aqueous Film Forming Foam (AFFF) Testing at Certificated Part 139 Airports; page 2; *available at*: https://www.faa.gov/airports/airport_safety/certalerts/media/part-139-cert-alert-19-01-AFFF.pdf.
[15] Federal Aviation Administration National Part 139 CertAlert 19-02; Aqueous Film Forming Foam (AFFF) Testing at Certificated Part 139 Airports; page 2; *available at*: https://www.faa.gov/airports/airport_safety/certalerts/media/part-139-cert-alert-19-02-AFFF.pdf.
[16] National Defense Authorization Act for Fiscal Year 2020; Pub. L. 116-92, §§ 323-324; *available at*: https://www.congress.gov/116/plaws/publ92/PLAW-116publ92.pdf.
[17] National Defense Authorization Act for Fiscal Year 2020; Pub. L. 116-92, §§ 322.