The Florida Senate

BILL ANALYSIS AND FISCAL IMPACT STATEMENT

(This document is based on the provisions contained in the legislation as of the latest date listed below.)

Prepared By: The Professional Staff of the Committee on Environment and Natural Resources

BILL:	SB 1666
INTRODUCER:	Senator Polsky
SUBJECT:	Discharge and Use of Firefighting Foam
DATE:	January 21, 2022
REVISED:	

	ANALYST	STAFF DIRECTOR	REFERENCE	ACTION
1.	Collazo	Rogers	EN	**Favorable**
2.			GO	
3.			AP	

I. Summary:

SB 1666 provides that beginning January 1, 2023, a fire service provider may not discharge or otherwise use Class B firefighting foam that contains intentionally added PFAS chemicals unless such discharge or use occurs in fire prevention or in response to an emergency firefighting operation.

The bill does not:

- Restrict the manufacturing, sale, or distribution of Class B firefighting foam that contains intentionally added PFAS chemicals or restrict the discharge or use of Class B firefighting foam in response to fire prevention or an emergency firefighting operation; or
- Prevent the use of nonfluorinated foams, including other Class B firefighting foams, for purposes of firefighter training or testing.

The bill also includes definitions for the terms "Class B firefighting foam," "PFAS chemicals," and "testing."

II. Present Situation:

Perfluoroalkyl and Polyfluoroalkyl Substances (PFAS)

Perfluoroalkyl and Polyfluoroalkyl substances (PFAS) are a group of thousands of man-made compounds developed to provide oil and water repellency, chemical and thermal stability, and friction reduction.[1] Perfluorooctane sulfonic acid (PFOS) and perfluorooctanoic acid (PFOA) are the most common and best-studied of these compounds.[2] PFAS have been widely used since the

[1] Interstate Technology Regulatory Council (ITRC), *History and Use of PFAS*, 1 (2020), *available at* https://pfas-1.itrcweb.org/wp-content/uploads/2020/10/history_and_use_508_2020Aug_Final.pdf (last visited Jan. 14, 2022).
[2] Florida Dep't of Health (DOH), *PFAS Chemical Awareness*, *available at* http://www.floridahealth.gov/environmental-health/hazardous-waste-sites/contaminant-facts/_documents/doh-pfas-poster.pdf (last visited Jan. 14, 2022).

1950s in many industries, including the aerospace, semiconductor, medical, automotive, construction, electronics, and aviation industries. The compounds have also been used as coatings in a variety of consumer products, such as non-stick cookware, waterproof and stain-resistant fabrics, carpets, furniture, outdoor equipment, cleaning products, food packaging, and firefighting foams.[3]

While U.S. manufacturers have voluntarily phased out use of the chemicals since the early 2000s, they persist in the environment, particularly at fire colleges, airports, and military installations,[4] where, in some circumstances, they are still used in firefighting foams.[5] Although PFOA and PFOS are no longer manufactured in the U.S., they are still produced internationally and can be imported into the U.S. in consumer goods such as carpet, leather and apparel, textiles, paper and packaging, coatings, rubber, and plastics.[6]

PFAS chemicals do not break down in the environment, can move through soil and water, and can accumulate in fish and wildlife.[7] Because of their prevalent use and ease of transport, they can be found virtually everywhere. The U.S. Centers for Disease Control and Prevention (CDC) has detected PFAS in nearly all persons it has tested, indicating widespread exposure in the U.S. population.[8] The predominant PFAS human exposure pathways include contact in the workplace, ingestion of food containing PFAS, ingestion of drinking water contaminated with PFAS, and exposure to PFAS from consumer products or indoor dust.[9] Based on recent studies, health effects from PFAS potentially include increased risk of certain cancers, increased cholesterol levels, liver and kidney damage, impacts on hormones and the immune system, and fetal and infant developmental effects.[10]

Some of the challenges to addressing PFAS are that the science surrounding the issue is rapidly evolving, exposure is perceived as involuntary, risk management strategies are ever-changing, and health impacts are greatest for the most sensitive populations.[11] Even while the health effects

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[3] ITRC, *History and Use of PFAS*, 1 (2020), *available at* https://pfas-1.itrcweb.org/wpcontent/uploads/2020/10/history_and_use_508_2020Aug_Final.pdf (last visited Jan. 14, 2022).
[4] *Id.* at 4.
[5] For example, Federal Aviation Authority (FAA) regulations still require the use of aqueous film-forming foam (AFFF). *See* 14 C.F.R. § 139.317 (2021). However, due to environmental concerns, to satisfy part 139, the FAA is currently recommending against testing AFFF by discharging it and has already approved four alternatives. *See* Federal Aviation Authority (FAA), *National Part 139 CertAlert No. 21-01*, *available at* https://www.faa.gov/airports/airport_safety/certalerts/media/part-139-cert-alert-21-01-AFFF.pdf (last visited Jan. 14, 2022).
[6] ITRC, *History and Use of PFAS*, 1 (2020), *available at* https://pfas-1.itrcweb.org/wpcontent/uploads/2020/10/history_and_use_508_2020Aug_Final.pdf (last visited Jan. 14, 2022).
[7] U.S. Centers for Disease Control and Prevention, *Per- and Polyfluorinated Substances (PFAS) Factsheet*, https://www.cdc.gov/biomonitoring/PFAS_FactSheet.html (last visited Jan. 14, 2022).
[8] *Id*.
[9] ITRC, *Human and Ecological Health Effects and Risk Assessment of Per- and Polyfluoroalkyl Substances (PFAS)*, 3 (2020), *available at* https://pfas-1.itrcweb.org/wp-content/uploads/2020/10/human_and_eco_health_508_20200918.pdf (last visited Jan. 14, 2022).
[10] DOH, *PFAS Chemical Awareness*, 2, *available at* http://www.floridahealth.gov/environmental-health/hazardous-waste-sites/contaminant-facts/_documents/doh-pfas-poster.pdf (last visited Jan. 14, 2022).
[11] ITRC, *Risk Communication for Per- and Polyfluoroalkyl Substances (PFAS)*, 1 (2020), *available at* https://pfas-1.itrcweb.org/wp-content/uploads/2020/10/pfas_rc_tech_508_2020Aug.pdf (last visited Jan. 14, 2022).

from low-level concentrations of PFAS are not yet fully understood, litigation and public interest is increasing nationally.[12]

Efforts to Address PFAS in Firefighting Foams

PFAS is common in firefighting foams that have been stored and used for fire suppression, fire training, and flammable vapor suppression.[13] These firefighting agents include Class B fluorine-containing firefighting foams, such as aqueous film-forming foam (AFFF).[14]

State Efforts

In Florida, the Department of Environmental Protection (DEP) has assessed each fire training facility in the state to ensure that PFAS-containing firefighting agents are disposed of, and that only firefighting agents that do not have PFAS are being used.[15] Of the 25 active facilities in the state with known or suspected use of AFFF, investigations indicate that 22 facilities had analytical results for PFOA and PFOS above the provisional groundwater Cleanup Target Level (CTL).[16] Where contamination is identified, DEP helps the facility develop a cleanup plan to remove or contain the contamination to prevent future environmental impact and human exposure.[17]

Federal Efforts

The U.S. Department of Defense (DOD) funds projects to assess PFAS occurrence, fate and transport, ecotoxicity, and remediation, as well as fluorine-free firefighting foams.[18] In 2019 it formed a national PFAS Task Force and has collaborated with other agencies and entities to address PFAS issues at military installations.[19] The goals of the PFAS Task Force are to mitigate and eliminate the use of the current aqueous film-forming foam (AFFF), fulfill PFAS cleanup responsibilities, understand the impacts of PFAS on human health, and expand PFAS-related public outreach.[20]

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[12] Ralph A. DeMeo & Jorge Caspary, *PFApocalypse Now: The PFAS Firestorm and Implications for Florida*, 94 FLORIDA BAR JOURNAL 3, 46 (May/June 2020), https://www.floridabar.org/the-florida-bar-journal/pfapocalypse-now-the-pfas-firestorm-and-implications-for-florida/#u7068 (last visited Jan. 14, 2022).
[13] ITRC, *PFAS*, https://pfas-1.itrcweb.org/3-firefighting-foams/ (last visited Jan. 14, 2022).
[14] *Id.*
[15] Florida Dep't of Environmental Protection (DEP), *Fire Training Facility Preliminary Site Assessments*, https://floridadep.gov/waste/waste-cleanup/content/fire-training-facility-preliminary-site-assessments (last visited Jan. 14, 2022); DEP, *Per-and Polyfluoroalkyl Substances (PFAS) Dynamic Plan*, 3 (Feb. 2021), *available at* https://floridadep.gov/sites/default/files/Dynamic_Plan_Revised_Feb2021.pdf (last visited Jan. 14, 2022).
[16] DEP, *Per-and Polyfluoroalkyl Substances (PFAS) Dynamic Plan*, 12 (Feb. 2021), *available at* https://floridadep.gov/sites/default/files/Dynamic_Plan_Revised_Feb2021.pdf (last visited Jan. 14, 2022).
[17] DEP, *Fire Training Facility Preliminary Site Assessments*, https://floridadep.gov/waste/waste-cleanup/content/fire-training-facility-preliminary-site-assessments (last visited Jan. 14, 2022).
[18] ITRC, *Regulation of Per- and Polyfluoroalkyl Substances (PFAS)*, 1 (2020), *available at* https://pfas-1.itrcweb.org/wp-content/uploads/2020/10/regs__508_Aug-2020-Final.pdf (last visited Jan. 14, 2022).
[19] U.S. Department of Defense (DOD), *Memo re: Per- and Polyfluoroalkyl Substances Task Force* (Jul. 2019), *available at* https://media.defense.gov/2019/Aug/09/2002169524/-1/-1/1/PER-AND-POLYFLUOROALKYL-SUBSTANCES-TASK-FORCE.PDF (last visited Jan. 14, 2022).
[20] DOD, *DOD's PFAS Public Outreach Focuses on Cleanup Progress, PFAS-Free Firefighting Solutions, Officials Say*, https://www.defense.gov/News/News-Stories/Article/Article/2818535/dods-pfas-public-outreach-focuses-on-cleanup-progress-pfas-free-firefighting-so/ (last visited Jan. 14, 2022).

The task force has made substantial progress toward understanding the DOD's use of AFFF and researching fluorine-free alternatives to AFFF, although there are challenges.[21] A viable alternative to AFFF must meet military specifications in terms of the time a fire must be put out and EPA standards for human health and the environment. It must also be usable in existing equipment and it must not degrade over time in storage. Notwithstanding these challenges, DOD officials remain cautiously optimistic that the DOD will find and deploy a PFAS-free alternative by the end of fiscal year 2024.[22]

Fire Service Provider

A "fire service provider" means a municipality or county, the state, the Division of State Fire Marshal within the Department of Financial Services, or any political subdivision of the state, including authorities and special districts, that employs firefighters or uses volunteer firefighters to provide fire extinguishment or fire prevention services for the protection of life and property.[23] The term includes any organization under contract or other agreement with such entity to provide such services.

Penalties for Violations of Ch. 633, F.S.

Licenses are required for installers of fire safety and fire suppression equipment.[24] Licenses or permits are required for various individuals and organizations servicing, repairing, recharging, testing, marking, inspecting, installing, or hydrotesting fire extinguishers or pre-engineered systems.[25] Fire protection system contractors are also required to obtain certificates.[26] Licenses or permits may be denied, not renewed, suspended, or revoked for violation of the governing statutes, rules, and regulations or refusal to comply with cease-and-desist orders or correction orders[27] and are suspended automatically upon failure to pay an administrative fine.[28]

Moreover, any person who violates any provision of chapter 633, F.S., any order or rule of the State Fire Marshal, or any order to cease and desist or to correct conditions issued under chapter 633, F.S., commits a second degree misdemeanor[29] punishable by a term of imprisonment not exceeding 60 days[30] or a $500 fine.[31] And any person who violates any part of chapter 633, F.S., or any rule, decision, order, direction, demand, or requirement of the State Fire Marshal, may be enjoined by the courts of the state from any such violation at the request of the State Fire Marshal, or any resident or taxpayer of the state.[32]

[21] *See id.*
[22] *Id.*
[23] Section 633.102(13), F.S.
[24] Section 633.306(1)(a), F.S.
[25] Section 633.304(1), F.S.
[26] Section 633.336, F.S.
[27] Sections 633.106 and 633.316(1), F.S.
[28] Section 633.106(3), F.S.
[29] Section 633.124(1), F.S.
[30] Section 775.082(4)(b), F.S.
[31] Section 775.083(1)(e), F.S.
[32] Section 633.342, F.S.

III. Effect of Proposed Changes:

Section 1 of the bill creates s. 633.3041, F.S., regulating firefighting foam.

The bill includes the following definitions:
- "Class B firefighting foam" means any foam designed to extinguish flammable liquid fires.
- "PFAS chemicals" means a class of fluorinated organic chemicals containing at least one fully fluorinated carbon atom, including perfluoroalkyl and polyfluoroalkyl substances, designed to be fully functional in Class B firefighting foam formulations.
- "Testing" means calibration, conformance, or fixed system testing.

The bill provides that beginning January 1, 2023, a fire service provider may not discharge or otherwise use Class B firefighting foam that contains intentionally added PFAS chemicals unless such discharge or use occurs in fire prevention or in response to an emergency firefighting operation.

The bill also provides that it does not:
- Restrict the manufacturing, sale, or distribution of Class B firefighting foam that contains intentionally added PFAS chemicals or restrict the discharge or use of Class B firefighting foam in response to fire prevention or an emergency firefighting operation; or
- Prevent the use of nonfluorinated foams, including other Class B firefighting foams, for purposes of firefighter training or testing.

Section 2 of the bill provides an effective date of July 1, 2022.

IV. Constitutional Issues:

A. Municipality/County Mandates Restrictions:

None.

B. Public Records/Open Meetings Issues:

None.

C. Trust Funds Restrictions:

None.

D. State Tax or Fee Increases:

None.

E. Other Constitutional Issues:

None.

V. Fiscal Impact Statement:

A. Tax/Fee Issues:

None.

B. Private Sector Impact:

Businesses that manufacture, sell, or distribute Class B firefighting foam containing intentionally added PFAS chemicals will likely experience reduced demand for such products. However, these same businesses may also experience increased demand for foam not containing PFAS chemicals.

C. Government Sector Impact:

Fire service providers will need to obtain acceptable Class B firefighting foam not containing PFAS and, effective January 1, 2023, begin using it for firefighter training and testing. There may be some additional cost to fire service providers associated with these efforts.

VI. Technical Deficiencies:

None.

VII. Related Issues:

None.

VIII. Statutes Affected:

This bill creates section 633.3041 of the Florida Statutes.

IX. Additional Information:

A. Committee Substitute – Statement of Changes:
(Summarizing differences between the Committee Substitute and the prior version of the bill.)

None.

B. Amendments:

None.