DEFEND OUR HEALTH

Solutions for a Toxic-Free Tomorrow

Testimony of Sarah Woodbury, Vice President of Policy and Advocacy, Defend Our Health
In Support of LD 222, "An Act to Establish a Take-back and Disposal Program for Firefighting and Fire-suppressing Foam to Which Perfluoroalkyl and Polyfluoroalkyl Substances Have Been Added", LD 400 "Resolve, Directing the Department of Public Safety, Office of the State Fire Marshal to Compile a Statewide Inventory of Aqueous Film-forming Foam Concentrate", and LD 407 "An Act to Prohibit the Use of Aqueous Film-forming Foam at the Former Brunswick Naval Air Station"
Before the Environment and Natural Resources Committee
February 26, 2025

Senator Tepler, Representative Doudera, and members of the Environment and Natural Resources Committee. My name is Sarah Woodbury. I am the Vice President of Policy and Advocacy for Defend Our Health. Defend Our Health's mission is to make sure that everyone has equal access to safe food and drinking water, healthy homes, and products that are toxic-free and climate-friendly. I am here to testify in support of LD 222, "An Act to Establish a Take-back and Disposal Program for Firefighting and Fire-suppressing Foam to Which Perfluoroalkyl and Polyfluoroalkyl Substances Have Been Added," LD 400 "Resolve, Directing the Department of Public Safety, Office of the State Fire Marshal to Compile a Statewide Inventory of Aqueous Film-forming Foam Concentrate," and LD 407 "An Act to Prohibit the Use of Aqueous Film-forming Foam at the Former Brunswick Naval Air Station."

Toxic PFAS such as those used in firefighting foam can cause a whole host of health issues, including reproductive harm, harm to the immune system, and increases in certain types of cancer. Firefighters have higher rates of cancer and other health issues than the general public, in part because of their exposure to toxic chemicals like PFAS. Additionally, these so-called "forever chemicals" do not break down and can remain in our bodies and in the environment for decades.

This past August, a faulty fire suppression system failed at Brunswick Landing, leading to over 1400 gallons of AFFF foam mixed with over 50 thousand gallons of water spilling into the surrounding community. It was the largest toxic chemical spill in Maine's history and the 6th largest in the U.S. This spill has had a detrimental impact on the community, contaminating nearby waterways and presenting a serious, long-term threat to soil, groundwater, air quality, and public health. While the impacts are still be investigated, we do know that shellfish in nearby streams are contaminated[1] and some residents have reported that levels in their private wells are increasing in the months since the spill.

Maine currently has a law on the books, passed in 2021, that bans the sale and use of AFFF foam in Maine. That law also requires manufacturers to recall the foam that they sold in the state. Unfortunately, many manufacturers have since gone out of business, so facilities are still

[1] Moravec, K. (2025, January 21). *Brunswick foam spill contaminated nearby fish, Dep confirms*. Press Herald. https://www.pressherald.com/2025/01/21/brunswick-foam-spill-contaminated-nearby-fish-dep-confirms/

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stuck with the toxic foam. We also don't know where all the foam is located in the state. LD 400 would set up a statewide inventory to track where the foam is located, and LD 222 would set up a safe collection and storage facility to get the AFFF out of communities across the state. The location and setup will be decided through rulemaking with the DEP working in conjunction with the state fire marshal to make sure that the foam is stored safely until safe destruction technologies are implemented. Colorado and New Hampshire have similar laws on the books. Maine can learn from the work that these states have already done.

We need to move quickly to move AFFF to safe storage facilities. There is no reason for any fire department to continue to use AFFF. It is no longer required by the Department of Defense or the Federal Aviation Administration, and safer alternatives are available. Contamination of drinking water due to discharge of PFAS containing fire fighting foam is both a state and national issue. In 2018, the Department of Defense identified 401 military sites that are contaminated by PFAS, much of that due to the discharge of firefighting foam containing PFAS.[2] Four of those sites are in Maine: Brunswick, Bangor, Cutler, and Gilead.[3] Those are only the sites identified by the military. From 2021 to 2024, the Department of Defense notified 53 Maine farms about groundwater contamination in Brunswick, Limestone, Cutler, and near two facilities in Bangor[4]. We need to do all we can to get any AFFF in the state into a safe storage facility to help protect against further contamination.

While we fully support the three bills before the committee, we are concerned about the foam being sent out of state for destruction in poor communities, as reported in the Press Herald at the end of December[5]. We ask that language be added to LD 222 to require that any future use of destruction technology must take into account any equity concerns. Maine should not be exporting our contamination to low-income communities and communities of color. We would be happy to work with the sponsor and the analyst on language. With that, Defend Our Health urges the committee to support this critical step in the right direction and vote unanimously "ought to pass" on LDs 222, 400, and 407.

Thank you.

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[2] Sullivan, M. (2018, March). Addressing Perfluorooctane Sulfonate (PFOS) and Perfluorooctanoic Acid (PFOA). Retrieved April 27, 2021, from https://web.archive.org/web/20210325142958/https://www.denix.osd.mil/derp/home/documents/pfos-pfoa-briefing-to-the-hasc/

[3] EWG. Interactive map: PFAS CONTAMINATION Crisis: New data Show 2,337 sites in 49 states. Retrieved April 27, 2021, from https://www.ewg.org/interactive-maps/pfas_contamination/

[4] Status of notifications to agricultural operations for fiscal ... Department of Defense. (2024, October 11). https://www.acq.osd.mil/eie/eer/ecc/pfas/docs/reports/Agricultural-Operations-RTC.pdf

[5] Overton, P. (2024, December 29). Maine's toxic firefighting foam shipped out of state to poor areas. Press Herald. https://www.pressherald.com/2024/12/29/what-should-maine-do-with-its-toxic-firefighting-foam/

AFFF Disposal Guide by Defend Our Health

What technologies are available as storage alternatives?

AFFF Disposal Options:

	DESTRUCTIVE OPTIONS	NON-DESTRUCTIVE OPTIONS
WORSE:	INCINERATION	LANDFILL DISPOSAL
BETTER:	SUPERCRITICAL WATER OXIDATION (SCWO)	INJECTION STORAGE

Incineration is when PFAS waste is burned at very high temperatures (usually over 1000°C). The goal with this method is to break apart the molecule into less harmful pieces which then reenter the environment through effluent, atmospheric emissions, and ash disposal.

Downsides/concerns:

- ✘ Incineration cannot destroy *all* PFAS. The strong carbon-fluorine bonds in PFAS do not easily break down with heat, leading to incomplete destruction and more small-chain PFAS that can move easily in the environment.
- ✘ Incineration cannot safely destroy PFAS. The byproducts created by this process contain dangerous levels of PFAS that reenter the environment.
- ✘ Commercial incinerators do not, and often cannot, measure their PFAS releases and there are no federal guidelines for the emissions.
- ✘ EPA has expressed many concerns about the safety and efficacy of incineration in their latest guidance and in 2022 the DOD put a temporary moratorium on PFAS incineration

Upsides:

- ✔ No significant upsides

Supercritical water oxidation (SCWO) is when liquid PFAS waste is exposed to extreme heat and pressure (so water is in the "supercritical state"), causing the carbon-fluorine bonds in PFAS become oxidized and break apart, eventually leaving only fluoride ions, carbon dioxide, and water.

Downsides/concerns:

- ✘ Relatively new and understudied, with further investigation needed to fully characterize all potential harmful byproducts in the liquid or gaseous effluent.

Upsides:

- ✔ The results are very promising. Recent testing has demonstrated that 99.9% of PFAS in AFFF is destroyed.
- ✔ The potential harm to the surrounding environment appears to be very minimal according to existing studies

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Landfill disposal is when AFFF waste is solidified, and disposed of at a hazardous waste landfill.

Downsides/concerns:

- ✘ PFAS can easily leach into the environment. PFAS is highly mobile, so systems designed to be impervious to other chemicals may NOT prevent PFAS from leaching into the environment.
- ✘ If liners or containment fails, it will cause high levels of contamination.

Upsides:

- ✔ No significant upsides

Injection storage is when AFFF is stored by injecting it into underground geologic formations. Underground injection has lower potential for environmental contamination when compared to other destruction and disposal options. These wells help ensure that injected fluids are confined and cannot enter underground sources of drinking water.

Downsides/concerns:

- ✘ Limited number of commercial hazardous waste injection wells exist — only 17% of Class 1 wells are for hazardous waste, and most only accept waste generated onsite
- ✘ Transportation and cost challenges may significantly limit the ability for states to use this option for their AFFF disposal.

Upsides:

- ✔ Safest containment option, with little chance of human exposure.
- ✔ If more potential well sites are identified and developed, it is a promising option for future safe AFFF disposal.

Maine needs a new solution for our AFFF.

Following the Brunswick spill in August 2024, PPH reported that Maine shipped its toxic waste out-of-state for disposal. Maine utilized Clean Harbors, which has incinerators located in already disadvantaged areas. For example, one Clean Harbor incinerator is in Sarnia, Ontario, bordering The Aamjiwnaang First Nation. **Sanaria is inundated with more than 60 refineries and chemical plants, has a high poverty rate, and already boasts the worst air quality in Canada**, according to WHO. Maine should continue looking for a more just resolution to our AFFF problem.