



May 19, 2023

Mark Margerum  
Maine Department of Environmental Protection  
17 State House Station  
Augusta, Maine 04333-0181

RE: Comments on Proposed Chapter 90: Products Containing Perfluoroalkyl and Polyfluoroalkyl Substances

Dear Mr. Margerum,

The American Chemistry Council's Center for the Polyurethanes Industry<sup>1</sup> (CPI) thanks the Maine Department of Environmental Protection (DEP) for engaging stakeholders during the rulemaking for Maine's Chapter 90: Products Containing Perfluoroalkyl and Polyfluoroalkyl Substances and appreciates the opportunity to comment on the Proposed Rule. The Proposed Rule establishes reporting requirements for products containing intentionally added perfluoroalkyl substances (PFAS), requires companies to pay fees for reporting, and ultimately bans products containing PFAS as of January 2030.

During the comment periods on the first and second Concept Drafts, CPI explained that foam blowing agents are not considered PFAS chemicals by their chemistry or by the U.S. Environmental Protection Agency (EPA) and that a misguided definition of these essential materials could impact Maine's goals to address climate change and improve energy efficiency. These concerns have not been addressed in the Proposed Rule. In fact, the Proposed Rule would ban the low-global warming potential (GWP) alternatives necessary to help reduce greenhouse gas emissions (GHGs) by transitioning from high-GWP blowing agents pursuant to 38 M.R.S. §1613, *An Act To Limit the Use of Hydrofluorocarbons To Fight Climate Change*.

### **Background**

Polyurethanes manufacturers and chemical producers have been investing in the transition to low-GWP foam blowing agents for decades. Since the early 2010s, polyurethanes manufacturers have had access to hydrofluoroolefin (HFO) foam blowing agents. HFO blowing agents provide a significant GWP reduction as compared to earlier generations of blowing agents and have a short atmospheric lifetime. The three primary HFO foam blowing agents used in the polyurethanes sector have GWPs < 7, which is approximately 200-1400 times lower than the substances previously used in the industry. Maine is among the short list of states showing leadership in this transition by adopting consistent dates and requirements for energy-saving products.<sup>2</sup>

HFO blowing agents fall into a broad class of fluorinated chemicals, but they do not possess the properties that have been associated with PFAS. HFO foam blowing agents are not classified as

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<sup>1</sup> The Center for the Polyurethanes Industry's (CPI) mission is to promote the growth of the North American polyurethanes industry through effective advocacy, delivery of compelling benefits messages demonstrating how polyurethanes deliver sustainable outcomes, and creation of robust safety education and product stewardship programs.

<sup>2</sup> [38 M.R.S. §1613](#).



persistent, bioaccumulative, or toxic (PBT).<sup>3</sup> The HFOs used as foam blowing agents have atmospheric lifetimes measured in days and are designed to readily breakdown in the atmosphere if released, forming compounds that occur naturally in the environment.<sup>4,5</sup> Under [Section 612](#) of the Clean Air Act (CAA), EPA's Significant New Alternatives Policy (SNAP) program reviewed environmental fate data on the HFO foam blowing agents for acceptability as approved alternatives to previous generation materials. By deeming HFO foam blowing agents "acceptable," EPA has determined that HFO foam blowing agents "reduce overall risk to human health and the environment compared to other substitutes for the particular end-use." Additionally, on April 28, 2023, EPA stated in the final rulemaking for SNAP Rule 25 regarding HFOs in refrigerant end uses:

Regardless of what definition of PFAS is used, not all PFAS are the same in terms of toxicity or any other risk. Some PFAS have been shown to have extremely low toxicity, for example. If a chemical has been found to present lower overall risk to human health or the environment, it might be found acceptable under SNAP regardless of whether or not it falls under a particular definition of PFAS. Likewise, SNAP might not find a potential alternative acceptable if it presented greater overall risk, regardless of whether or not it falls under a particular definition of PFAS. As described in the risk screens for alternatives found in the docket for this rulemaking, potential risk to human health or the environment has been considered directly for each chemical, and the risks are not assumed to follow from a chemical falling into any particular category of substances.<sup>6</sup>

HFO foam blowing agents are not considered PFAS by EPA<sup>7</sup> and should not be classified or regulated as PFAS. It is inappropriate to regulate these chemicals in the same manner as PFAS. Unfortunately, the definition of PFAS used in the Proposed Rule is broad enough to improperly include HFO blowing agents as PFAS. HFO blowing agents should be exempt from the reporting requirement and ban in the Proposed Rule.

## **PFAS Definition**

CPI strongly disagrees with the overly broad definition of PFAS in the Proposed Rule. Maine DEP should recognize that HFO foam blowing agents, though structurally classified as PFAS under the Proposed Rule definition, do not have the same properties. EPA has listed HFO foam blowing agents as acceptable substitutes for the respective end-use applications under [CAA Section 612](#). Additionally, HFO foam blowing agents are subject to CAA reporting requirements under SNAP Rule 21. The additional reporting of HFO blowing agents by Maine DEP creates a repetitive and unnecessary obligation for companies using these products.

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<sup>3</sup> ECHA PBT Assessment List. Available at: <https://echa.europa.eu/fi/pbt>.

<sup>4</sup> D.K. Papanastsiou, Atmospheric Chemistry of HFOs and HCFOs, DKV Annual Meeting, November 17-19, 2021, Dresden, Germany.

<sup>5</sup> EFCTC Position Paper: Published evidence supports very low yield of TFA from most HFOs and HCFOs (August 2021). Available at: [https://www.fluorocarbons.org/wp-content/uploads/2021/08/2021\\_08\\_EFCTC\\_Position-Paper\\_Published-evidence-supports-very-low-yields-of-TFA-from-most-HFOs-and-HCFOs\\_F.pdf](https://www.fluorocarbons.org/wp-content/uploads/2021/08/2021_08_EFCTC_Position-Paper_Published-evidence-supports-very-low-yields-of-TFA-from-most-HFOs-and-HCFOs_F.pdf)

<sup>6</sup> Final Rule, [Protection of Stratospheric Ozone: Listing of Substitutes Under the Significant New Alternatives Policy Program in Refrigeration, Air Conditioning, and Fire Suppression](#), 88 Fed. Reg. 26382, 26414 (Apr. 28, 2023).

<sup>7</sup> Environmental Protection Agency, National PFAS Testing Strategy: Identification of Candidate Per- and Polyfluoroalkyl Substances (PFAS) for Testing [add date and/or citation]

The following is a more appropriate definition of PFAS:

PFAS means non-polymeric perfluoroalkyl and polyfluoroalkyl substances that are a group of man-made chemicals that contain at least 2 fully fluorinated carbon atoms, excluding gasses and volatile liquids.

### **Exemption**

As required by statute, Section 4 of the Proposed Rule exempts the reporting and banning of certain PFAS when these compounds are regulated by federal law that preempts Maine authority. If DEP does not redefine PFAS, it should expand the exemption to include use of certain PFAS compounds as required by 38 M.R.S. §1613, *An Act To Limit the Use of Hydrofluorocarbons To Fight Climate Change*. This Act requires polyurethane manufacturers to develop low-GWP alternatives to hydrofluorocarbon (HFC) foam blowing agents. The HFO-based blowing agents are the alternative. [Please note, as stated above, the polyurethanes industry does not consider foam blowing agents to be PFAS. In these comments CPI is using the definition from the Proposed Rule.]

CPI recommends the following changes to Section 4:

The following are exempt from the requirements of this Chapter:

- (1) A product for which federal law or regulation controls the presence of PFAS in the product in a manner that preempts state authority. For this purpose, the provisions of this Chapter are severable, and if any phrase, Section or Subsection is preempted by federal law or regulation, the validity of the remainder of this Chapter shall not be affected.
- (2) A product subject to Title 32, §26-A, Reduction of Toxics in Packaging, ~~and~~
- (3) A product subject to Title 32, §26-B, Toxic Chemicals in Food Packaging, and
- (4) A product subject to Title 38 §1613, Hydrofluorocarbon Use Restrictions.

The American Innovation and Manufacturing (AIM) Act, which was signed into law at the end of 2020, implements the phasedown of HFC blowing agents. HFO blowing agents are a preferred alternative to HFCs and are already playing an important role in supporting EPA's climate goals under the AIM Act. By requiring the reporting and eventually banning of HFO blowing agents, per the overly broad PFAS definition in the Proposed Rule, Maine DEP is restricting the use of an alternative to high-GWP blowing agents and undermining EPA's climate goals in the AIM Act and Maine's own law.

The Proposed Rule allows Maine DEP to exempt a product from subsection 7 if the product is considered "a currently unavoidable use," which is defined as "essential for health, safety, or the functioning of society and for which alternatives are not reasonably available." Products "essential for health, safety, or functioning of society" include but are not limited to "climate mitigation, critical infrastructure, delivery of medicine, lifesaving equipment, public transport, and construction."

HFO foam blowing agents are currently an unavoidable use in construction projects and are also critical to reducing the GWP of those projects. Additionally, foam blowing agents help create products that can reduce greenhouse gas emissions associated with heating and cooling, making them essential to both climate mitigation and construction.

While HFOs are not deemed persistent, some theoretical calculations note that the few HFOs used as foam blowing agents may create zero to 4% TFA. While TFA may be considered persistent, the United Nations Environment Programme notes:

The increases in trifluoroacetic acid concentrations due to replacements of the ozone-depleting substances are not expected to pose significant risk to humans or the environment at the present time. Trifluoroacetic acid (TFA) continues to be found in the environment, including in remote regions, although concentrations are so low that they are currently very unlikely to have adverse toxicological consequences for humans and ecosystems [105,106]. The accumulated amount of TFA is expected to increase because of the planned replacement of ODS with short-lived fluorinated chemicals (Fig. 11). However, based on projected future use of these precursors of TFA, no harm is anticipated. There is a large uncertainty associated with the magnitude of other sources of TFA (e.g., potential natural sources, fluorinated pesticides, and pharmaceuticals), which do not fall under the purview of the Montreal Protocol. Trifluoroacetic acid has biological properties that differ significantly from the longer chain polyfluoroalkyl substances (PFAS) and inclusion of TFA in this larger group of chemicals for regulation would be inconsistent with the risk assessment of TFA.<sup>8</sup>

Beyond the reasons outlined in this section, CPI believes that reporting should not be required for any products before a final rule is in place.

### **Responsible Party**

CPI is concerned about the confusion over exactly which companies are required to report applications of PFAS as defined by the law to DEP. CPI understands that the responsible party is the company which markets the product and whose name appears on the product label. In circumstances where a marketing company is not located within the United States, the importer is the responsible party. However, based on the current wording of the Notifications section of the Proposed Rule, there are questions as to whether there are reporting obligations for the rest of the supply chain.

As the Department is certainly aware, it will receive notifications for hundreds of thousands of products (if not more) from all sectors of the economy. The reporting provisions of the Proposed Rule do not consider complex, multi-tiered global supply chains that includes an array of manufacturers, from small private firms to multinational corporations, providing chemicals, component parts, and assemblies that come together in a final manufactured article. Deconvoluting such supply chains to identify whether a product or product component contains PFAS, the identities of those PFAS, the degradation products of those PFAS, and the quantity of those PFAS is a complicated and time-consuming process. For products sold directly to contractors and not directly to retailers or individuals, it will be virtually impossible for the original product manufacturer to report on sales into Maine.

CPI recommends DEP draft a definition for the term “responsible party” which describes the reporting hierarchy so that companies can make appropriate determinations and utilize clear terminology within the Notification section of the Proposed Rule to provide clarity amongst stakeholders compelled to report. Suppliers should not be required to reveal commercial trade secret information to their downstream customers and the final rule should simplify electronic reporting in a manner that enables “joint submissions.”

### **Fees**

CPI opposes fees to report to the State, as these are chemicals of low concern.

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<sup>8</sup> [Environmental Effects of Stratospheric Ozone Depletion, UV Radiation, and Interactions with Climate Change: 2022 Assessment Report](#), May 4, 2023

## **Conclusion**

The fluorocarbons used in blowing agents break down quickly in the atmosphere, and are non-toxic, non-persistent and non-bioaccumulative, and thus not considered PFAS by EPA. Maine DEP should develop an exemption for low-GWP blowing agents, delay reporting requirements one year after publication of the final rule, and eliminate fees for chemicals of low concern. Doing so will not only help prevent burdensome and repetitive reporting and cost requirements for producers and users of blowing agents but help Maine meet both state and federal climate goals.

If you have any questions or need additional information, please contact me at [Ian\\_Choiniere@americanchemistry.com](mailto:Ian_Choiniere@americanchemistry.com) or (202) 249-6424.

Sincerely,

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