

UNITED STATES OF AMERICA
ENVIRONMENTAL PROTECTION AGENCY

In the Matter of:

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| Addition of Certain Per- and Polyfluoroalkyl Substances: | EPA-HQ-TRI-2019-0375; |
| Community Right-to-Know Toxic Chemical Release Reporting | FRL-10002-70; RIN 2070-AK51 |

**COMMENTS OF THE VERMONT AGENCY OF NATURAL RESOURCES AND
THE VERMONT DEPARTMENT OF PUBLIC SAFETY**

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For the Agency of Natural Resources

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INTRODUCTION

On December 4, 2019, the Environmental Protection Agency (EPA) issued an Advance Notice of Proposed Rulemaking (ANPR) and request for comments regarding a future rulemaking to add certain per- and polyfluoroalkyl substances (PFAS) to the list of toxic chemicals subject to reporting under section 313 of the Emergency Planning and Community Right-to-Know Act (EPCRA) and section 6607 of the Pollution Prevention Act (PPA) (collectively, the Toxics Release Inventory, or “TRI”). EPA’s ANPR and the questions posed therein recognize that communities across the country deserve to know when, where, and in what quantities PFAS are used, managed as waste, and released into the environment. The Vermont Agency of Natural Resources (ANR) and the Vermont Department of Public Safety (DPS) (collectively “Commenters”) appreciate the opportunity to submit comments on this matter. Given the ANPR’s preliminary nature, the Commenters reserve the right to amend or supplement these comments as this initiative proceeds or as the Commenters review additional information.

PFAS are known as the “forever” chemicals because they persist in the environment for an indefinite period of time. PFAS are highly ubiquitous in use and some compounds persist in the environment for at least decades, especially in water. As a result, many states are discovering PFAS in groundwater, including drinking water, other environmental media and biota. Studies have shown a correlation between human exposure and harmful health effects, including kidney and testicular cancer, ulcerative colitis, and adverse effects on fetal development during pregnancy, the liver, the immune system, the thyroid, and cholesterol levels. Though PFAS have been used for decades in a variety of industrial uses and applications (including fire-fighting foams, food packaging, commercial household products), availability of information regarding the uses of these chemicals is only recently starting to become available.

SUMMARY OF COMMENTS

The Commenters hope that these comments, and those of other stakeholders, will support an effort by the EPA to propose rules that will enable the EPA, states, and local governments to be better informed of the presence of these particularly harmful chemicals in their communities and to help support decision-making by these entities regarding chemical threats to safety and protection of human health and the environment. Specifically, the EPA should require more extensive reporting of all PFAS, not just those substances currently active in commerce. Additionally, based on the special concerns and greater risks posed by these substances, the EPA should require a reporting threshold that is much lower than the levels recently established by Congress. Lastly, EPA should add certain PFAS chemicals to the TRI list as individual listings and all other PFAS chemicals to the list as a chemical category listing. Commenters believe that these approaches to adding PFAS chemicals to the TRI list are consistent with the purposes and intent of EPCRA and the PPA.

THE TRI REPORTING PROGRAM

EPCRA requires, at each facility at which a listed toxic chemical is manufactured, processed, or used, that the facility report certain information to the EPA and state environmental agencies on an annual basis. EPCRA, 42 U.S.C. § 11023. The report must include facility information, including principal business activities of the facility, and information on each chemical

manufactured, processed, or otherwise used at any time during the preceding calendar year. *Id.* The report must also include information related to each waste stream at the facility, including the waste treatment and disposal methods employed and the efficiencies of treatment methods employed. *Id.* The PPA, on the other hand, focuses on reducing the amount of pollution through changes in production, operation, and raw material used in an effort to incentivize the reduction or elimination of waste sources that involve toxic chemicals. PPA, 42 U.S.C. § 13106.

The ANPR seeks public comment on whether and to what extent PFAS should be added to the TRI list, subjecting entities that manufacture, use, or process these substances to the reporting and planning requirements outlined above. 84 Fed. Reg. at 66371-66372 (Dec. 4, 2019). During the ANPR public comment period, some PFAS were added to the TRI list by the United States Congress. On December 20, 2019, the National Defense Authorization Act for Fiscal Year 2020 (NDAA) was signed into law. NDAA, Pub. Law 116-92 (December 20, 2019). The NDAA includes a number of provisions requiring new reporting and disclosure obligations for PFAS chemicals. These provisions are summarized below and are relevant to the ANPR and these comments.

The NDAA requires immediate inclusion of 160 PFAS chemicals to the TRI list for reporting. NDAA, Pub. Law 116-92 at § 7321(b). Entities subject to TRI reporting must report in the 2020 reporting year on their manufacturing, processing, or use of these PFAS chemicals. Such PFAS chemicals include: perfluorooctanoic acid (PFOA) and associated salts, perfluorooctane sulfonic acid (PFOS) and associated salts, hexafluoropropylene oxide dimer acid (often referred to as “GenX”), perfluorononanoic acid (PFNA), perfluorohexane sulfonic acid (PFHxS), and other PFAS listed as “active chemical substances” under the Toxic Substances Control Act (TSCA). *Id.* at § 7321(b)(1). The NDAA also mandates that certain additional PFAS be added to the TRI list automatically if certain technical assessments are made by the EPA. These assessments include finalization of a toxicity value for a PFAS chemical, a determination of coverage for a “significant new use” rule, or addition by the EPA of that PFAS as an “active chemical substance” list under TSCA. *Id.* at § 7321(c). The reporting threshold for listed PFAS under both these provisions is 100 pounds. *Id.* at § 7321(c)(2)(A).

Lastly, the NDAA requires that the EPA make an affirmative determination within two years as to whether additional PFAS meet the EPCRA listing criteria in 42 U.S.C. § 11023(d)(2) for inclusion in the TRI list. *Id.* at § 7321(d). The EPA must make this determination regarding the PFAS chemicals specified in Section 7321(d)(2) of the NDAA, which include specific substances (such as perfluoroheptanoic acid, or PFHpA), and other PFAS for which the EPA has validated a method to measure levels in drinking water or that have been used to manufacture fluorinated polymers.

The new PFAS reporting and disclosure requirements imposed by the NDAA acknowledge the immediate need for PFAS-related information and are a start to better understanding the scope of the current and future uses of PFAS throughout the United States. However, as explained further below, additional information regarding all PFAS use, including information regarding usages of PFAS at even lower thresholds, is necessary for state and local governments to have a more complete understanding of the amounts and locations of PFAS use in their jurisdictions, and to help support decision-making by these entities regarding chemical threats to safety and protection of human health and the environment.

STATE OF VERMONT'S INTERESTS IN PFAS REPORTING REQUIREMENTS

Agency of Natural Resources

ANR has great interest in more comprehensive information regarding PFAS use within Vermont to be better able to identify localized sources and pathways of PFAS, which help to support decision-making regarding chemical threats to safety and protection of human health and the environment. In February 2016, the ANR's Department of Environmental Conservation (DEC) discovered widespread PFAS contamination in Bennington, Vermont. Specifically, PFOA was detected in over 465 private drinking water wells at levels as high as 4,600 ppt. The contamination was discovered to be associated with former Teflon coating facilities that operated in Bennington and North Bennington from 1968-2002.

Since the Bennington discovery, the ANR, in conjunction with the Vermont Department of Health and other Vermont regulatory partners, local communities, and the Vermont General Assembly, have focused significant efforts and resources on investigating and responding to these impacts. The State of Vermont has begun a statewide investigation to identify likely localized sources of PFAS contamination in the State, which is expected to continue well into the future. In its July 2019 "Per and Polyfluoroalkyl Substances (PFAS) Statewide Sampling Plan"¹, the DEC outlines its testing efforts conducted to-date, plans to conduct monitoring of public water systems and surface waters for PFAS, and plans for further investigation of intensive uses of PFAS and waste streams containing PFAS in the State. As a result of the work conducted thus far, the State has discovered that PFAS appears to be nearly ubiquitous, finding PFAS in locations such as private and public drinking water supplies (including schools), leachate from lined landfills, and wastewater influent and effluent.

As evidenced by ANR's recent investigatory and response activities and the need for additional efforts, more comprehensive information would be helpful in identifying localized sources of PFAS and potential impacts and in supporting decision-making regarding chemical threats to human health and the environment. Specifically, more comprehensive information regarding facilities that use or process PFAS, types of PFAS usage and applications, and potential facility sources of PFAS contamination in Vermont will be helpful in identification and remediation of sources of PFAS that have affected public health and the environment. By adding additional PFAS to the EPCRA section 313 list for reporting, ANR, along with other Vermont regulators and local communities, would have a more comprehensive and common source of PFAS information that would enable the State to better investigate and understand PFAS pathways in the State. Additionally, by listing PFAS under section 6607 of the PPA, Vermont entities generating or using PFAS over established threshold quantities would be required to report on such usage and plan to reduce the volumes of PFAS used or generated by the facility.

¹ Vermont Agency of Natural Resources "Perfluoroalkyl Substances (PFAS) Statewide Sampling Plan, June 2019: <https://anrweb.vt.gov/PubDocs/DEC/PFOA/2019%20Statewide%20Sampling%20Plan/6.6.2019%20pfas%20plan.pdf>

Department of Public Safety

The Vermont Department of Public Safety (DPS) is charged with, among other duties, providing assistance to prevent, protect, mitigate, respond to, and recover from human-made threats and hazards in order to ensure the safety and quality of life of Vermont's citizens. The DPS's Division of Fire Safety (DFS) protects the public and emergency responders through coordinated efforts in hazardous materials training, and other training and education, to maximize life safety and minimize environmental impacts due to disasters and emergencies that occur within the State. The DFS also administers the EPCRA Tier II Reporting Program for the State of Vermont, which collects certain chemical storage and usage data from certain companies who operate within the State. The reported information is public and is used by emergency response personnel in responding to accidents and other community emergencies and by Local Emergency Planning Committees for developing community emergency response plans.

The lack of PFAS use and release reporting information hinders local municipalities' and emergency response entities' ability to plan for hazards to which emergency responders and the public might be exposed as a result of these chemicals in the community. Therefore, the DPS supports an EPA future rulemaking to add PFAS chemicals to the TRI list due to the risks posed to the public from exposure to PFAS.

COMMENTS

The EPA has sought comments on several specific issues, which the Commenters address below. Each of these comments should be considered incorporated in full wherever relevant to the specific questions that EPA staff have posed in the ANPR.

I. EPA Should Add All PFAS to the TRI List for Reporting.

The ANPR seeks comments on which of the approximately 600 PFAS used in active commerce in the United States should be added to the TRI list. However, there may be thousands more individual PFAS chemicals that make up the chemical category and that Commenters believe should also be reported under TRI.² Commenters recommend that all PFAS chemicals - not just the 600 PFAS thought to be actively used in commerce - should be required to be reported under TRI.

Though it is generally known that some PFAS have been widely used among a variety of processes and applications for decades, there is a need for a better understanding of the various PFAS compounds that continue to be used in Vermont and nearby states and that may contribute to contamination of environmental and human receptors. As the ANPR acknowledges, some manufacturers have phased out production of longer-chain PFAS chemicals (such as PFOA and PFOS) under a 2010/2015 PFOA Stewardship Program. 84 Fed. Reg. at 66371. Additionally, it

² For instance, the National Institute of Environmental Health Sciences (NIH) estimates that "more than 4,700 PFAS exist" as industry continues to invent new forms of this type of chemical: <https://www.niehs.nih.gov/health/topics/agents/pfc/index.cfm> (last visited 1/27/2020). Additionally, the U.S. Food and Drug Administration (FDA) also estimates that nearly 5,000 types of PFAS exist: <https://www.fda.gov/food/chemicals-and-polyfluoroalkyl-substances-pfas> (last visited 1/27/2020).

appears that manufacturers are transitioning to the use of shorter-chain PFAS compounds and away from longer-chain forms like PFOA and PFOS.

Given the above, the EPA should add all PFAS chemicals to the TRI list for reporting in order to allow the public to better understand the variety of current uses and track changes in use of PFAS chemicals over time. Information reported on additional PFAS chemicals ensures a more comprehensive understanding of the entire category of chemicals, including what specific chemicals are being used in what applications and in what quantities in order to help support decision-making by these entities regarding threats to safety and protection of human health and the environment. This approach is consistent with the purposes of EPCRA and should not produce an unduly burdensome obligation on the part of reporting entities as those entities are expected to be tracking their usage and applications of PFAS for purposes of the new reporting obligations of the NDAA.

II. EPA Should Designate All PFAS as “Chemicals of Special Concern” and Require a Reporting Threshold of 10 Pounds or Lower.

The NDAA, Section 7321, establishes the reporting threshold for PFAS added to the TRI list by the act at 100 pounds or greater. This threshold is much lower than the default reporting thresholds established by EPCRA, which reflects the increased risks posed by PFAS chemicals and the strong need for the information required to be reported by virtue of a TRI listing. However, the Commenters urge EPA to establish a reporting threshold for PFAS chemicals at even lower levels than those established by the NDAA in order to recognize PFAS as chemicals of special concern due to their very serious adverse effects, and to ensure that states like Vermont actually benefit from the reporting requirements. Commenters recommend that the EPA set a reporting threshold at least as low as 10 pounds for PFAS due to the nature of certain substances in this class that are known to be highly toxic, bioaccumulative, and persistent in the environment.

EPCRA establishes reporting thresholds of 25,000 pounds for facilities that manufacture or process listed chemicals, and 10,000 pounds for facilities that otherwise use listed chemicals. EPCRA, 42 U.S.C. § 11023(f)(1). However, the EPA may revise these reporting thresholds for certain chemicals such as those added to the list of “chemicals of special concern.” *Id.* at § 11023(f)(2). The EPA has historically established lower reporting thresholds for chemicals that are toxic, persistent, and that bioaccumulate (referred to as “PBTs”).³ Lower reporting thresholds for PBTs reflect that these chemicals “have the potential to cause serious human health and environmental effects resulting from low levels of release and exposure” and the nature of these chemicals to “remain in the environment and for significant periods of time and concentrate in organisms exposed to them.” 64 Fed. Reg. at 58666 (October 29, 1999). Establishing lower reporting thresholds for PBT chemicals helps to ensure that the public has important information on the quantities of these chemicals released or otherwise managed that would not otherwise be reported (and therefore, not publicly available) under the much higher default thresholds.

³ See <https://www.epa.gov/toxics-release-inventory-tri-program/pbt-chemicals-lowering-reporting-thresholds-certain-pbt> and EPA Final Rule: Persistent, Bioaccumulative, Toxic (PBT) Chemicals; Lowering of Reporting Thresholds for Certain PBT Chemicals; Addition to Certain PBT Chemicals; Community Right-to-Know Toxic Chemical Reporting, 64 Fed. Reg. 58666 (October 29, 1999).

Following the 2016 discovery of PFAS contamination in drinking water wells in Bennington, Vermont, the Vermont Department of Health issued a Health Advisory of a combined 20 parts per trillion (ppt) for PFOA and PFOS in drinking water. In July 2018, the VDH updated the health advisory to apply the 20 ppt standard to a cumulative of a total five per- and poly-fluoroalkyl substances: PFOA, PFOS, PFHxS, PFHpA, and PFNA.⁴ As the July 2018 VDH Health Advisory explains, PFOA and PFOS are highly toxic as they target many organ systems, including but not limited to the liver, endocrine, and the immune system. The advisory recognizes that these PFAS are presumed to be immune hazards to humans based on a high level of evidence in animals that PFOA and PFOS suppress the antibody response and that exposure to PFOA and PFOS is associated with development toxicity. As to other PFAS chemicals, (including PFHxS, PFHpA, and PFNA), the advisory states that “some studies in people show that certain PFAS may affect growth, learning and behavior of infants and older children; lower a woman’s chance of getting pregnant; interfere with the body’s natural hormones, increase cholesterol levels, affect the immune system, and increase the risk of cancer.”⁵ The Vermont 20 ppt cumulative standard was applied to the five PFAS substances as they are structurally similar to each other (each are “long- chain” compounds, i.e., six to nine carbon chains members of the chemical family), have similar, long half-lives, are often found occurring together, and elicit similar human health effects.

In addition to the known high toxicity of certain PFAS chemicals, certain PFAS chemicals have also been determined to have extremely high persistence in both the environment and in the human body and to accumulate in these receptors over time (bioaccumulate).⁶

Based on the above, the EPA should establish a low threshold for reporting of PFAS compounds in recognition of the known concerns resulting from certain of these chemicals’ toxicity, persistence, and ability to bioaccumulate. Though the effects of some PFAS compounds have not been studied as comprehensively as PFOA, PFOS, and other individual chemicals, it is better to obtain information about the production and use of other PFAS chemicals now as information about their potential toxicity, persistence, and ability to bioaccumulate is being developed. EPA is entitled to list an entire category of chemicals based on a reasonable determination that a member or members of the category have certain effects and that other members of the category may exhibit similar characteristics. See Troy Corp. v. Browner, 120 F.3d

⁴ See Memorandum “Drinking Water Health Advisory for Five PFAS (per- and polyfluorinated alkyl substances)”, July 10, 2018: https://www.healthvermont.gov/sites/default/files/documents/pdf/ENV_DW_PFAS_HealthAdvisory.pdf.

⁵ Other sources also identify the highly toxic nature of certain PFAS. The C8 Health Project based in the mid-Ohio Valley of West Virginia collected blood samples and other information for approximately 70,000 individuals whose drinking water was found to be contaminated with PFOA. This information was evaluated to assess the links between PFOA (commonly referred to as C8) and a number of diseases. The results of the assessment showed a probable link between PFOA exposure and high cholesterol, ulcerative colitis, thyroid disease, testicular cancer, kidney cancer, and pregnancy-induced hypertension. See http://www.c8sciencepanel.org/prob_link.html. Additionally, in 2015, the Agency for Toxic Substances and Disease Registry (ATSDR) published a draft Toxicological Profile for perfluorochemicals, including PFOA, based on a review of science of health effects that were current at the time. Findings were made for association of serum PFOA and increased serum lipid levels, decreased birth weight, increased uric acid levels, and alterations of liver enzymes. See <https://www.atsdr.cdc.gov/toxprofiles/tp.asp?id=1117&tid=237>.

⁶ See, e.g., EPA PFOA Health Effects Support Document (2016); EPA PFOS Health Effects Support Document (2016); EPA Drinking Water Advisory for PFOS (2016); EPA Drinking Water Advisory for PFOA (2016).

277, 290 (D.C. Cir. 1997). Therefore, the entire PFAS category should be listed as chemicals of special concern, subject to a reporting threshold of 10 pounds at a maximum. Commenters note that, as discussed in general above, EPA has previously established an even lower reporting threshold for PBTs such as PCBs and dioxins of one pound and one-tenth of a gram, respectively. In light of this precedent and the strong interests in the information on PFAS use as discussed herein, Commenters support a reporting threshold of lower than 10 pounds.

Lower reporting thresholds are warranted in states like Vermont where PFAS continues to be found throughout the State. A low reporting threshold would reflect the fact that certain PFAS substances are known to cause long-term, persistent contamination regardless of the amount. Lower reporting thresholds would also likely result in additional entities actually being subject to TRI reporting and PPA planning as compared to those that would be subject to reporting and planning requirements under the NDAA reporting threshold of 100 pounds.

III. EPA Should List Certain PFAS as Individual Chemicals and List Remaining PFAS as a Single Chemical Category

Certain PFAS chemicals should be added to the TRI list as individual listings, each subject to a 10-pound or lower reporting threshold as recommended in Section II. Specifically, individual listings should be added for the 160 PFAS chemicals required for immediate reporting in the NDAA, Section 7321(b). This list includes four of the five Vermont-regulated chemicals: PFOA, PFOS, PFHxS, and PFNA. The EPA should also add an individual listing for PFHpA, which is regulated by the State of Vermont and is a member of the PFAS class that is known to cause or can reasonably be anticipated to cause the same adverse effects as other members of the class.

The EPA should consider adding additional PFAS chemicals to the TRI list subject to the extent that additional comments and technical information (including comments and information submitted in response to the ANPR) support a reasonable determination that an additional PFAS chemical are expected to exhibit the same or similar characteristics as a PFAS covered by an individual listing. Additionally, the EPA should add additional PFAS chemicals to the TRI list to the extent that any of the following occur: a determination of a final toxicity value is determined, the EPA adds or makes a determination of coverage under a significant new use rule, EPA designates a PFAS chemical as an active chemical, or a method to measure levels of a PFAS chemical in drinking water is validated. Such additional listings should all be subject to a 10-pound or lower reporting threshold.

Any remaining members of the PFAS family should be added by the EPA as an entire category listing subject to a 10-pound or lower reporting threshold.

CONCLUSION

The Vermont Agency of Natural Resources and the Vermont Department of Public Safety appreciate the EPA's interest in a future rulemaking aimed at strengthening the EPA's, states', and the public's understanding of the use of PFAS chemicals and supporting decision-making by these entities regarding chemical threats to safety and protection of human health and the environment.

Sincerely,



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Agency of Natural Resources



Christopher Herrick
Deputy Commissioner
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