



United States Department of the Interior

OFFICE OF THE SECRETARY
Washington, DC 20240

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Memorandum

To: Heads of Bureaus and Offices

From: Stephen G. Tryon, Director
Office of Environmental Policy and Compliance

Subject: Protective Actions regarding Per- and Polyfluoroalkyl Substances (PFAS)

This memorandum provides guidance to the U.S. Department of the Interior (Department) Bureaus and Offices regarding the management of per- and polyfluoroalkyl substances (PFAS) that may be present on, or adjacent to, lands managed by the Department or currently used in our operations. The goal of this guidance is twofold: 1) reduce potential exposure to PFAS by requiring an initial PFAS screening of on-site drinking water sources (e.g., from wells, springs, or surface water) to protect the health of our employees, visitors, and resources entrusted to our care; and 2) guide our current and future operations to avoid the purchase and use of products containing PFAS. These goals are consistent with, and are tied directly to, goals for management of PFAS in the work environment that are set out in Executive Order 14057, on Catalyzing Clean Energy Industries and Jobs Through Federal Sustainability.

The PFAS substances are a group of human-made chemicals that have been manufactured and used in the U.S. since the 1940s. Products that historically contained PFAS include nonstick cookware (e.g., TeflonTM), food packaging, polishes/waxes, paints, and cleaning products. The manufacturing of some of these chemicals has been voluntarily discontinued in the U.S.; however, PFAS are present in some fire-fighting foam, which is a significant source of ground-water contamination nationwide. While PFAS contamination may occur almost anywhere in the environment, it may be of particular concern at the Department field stations that are located near landfills containing industrial wastes, airports, formerly used defense sites, operating military bases, metal plating facilities, oil and gas operations, local fire departments, and other facilities that currently conduct or historically conducted firefighting training.

The PFAS are very persistent in the environment and in the human body – they do not break down easily and they can accumulate over time. Evidence indicates that exposure to high levels of PFAS can lead to adverse human health effects, including developmental effects to fetuses during pregnancy, cancer (e.g., kidney), liver tissue damage, immunity effects, cholesterol changes, and thyroid effects. The U.S. Environmental Protection Agency (EPA) has not yet established a maximum contaminant level under the Safe Drinking Water Act for PFAS but has established a health advisory level of 70 parts per trillion (ppt) (EPA's health advisories are non-enforceable and non-regulatory). The EPA is moving forward to implement the regulation development process for PFAS and some states have more stringent regulatory requirements. In

the interim, the Department is taking the steps outlined below to address concerns related to PFAS.

I. DOI locations that supply on-site drinking water (i.e., not municipal water) and are regulated under the Safe Drinking Water Act (from sources such as wells, springs, surface water) shall perform an initial analysis for PFAS by the end of calendar year 2022, due December 31, 2022. This initial sampling event will identify those locations that require further sampling and potential treatment to address PFAS. Field locations are required to use a certified laboratory, approved by either EPA or the State regulatory agency, for all drinking water testing. The sampling methodology must conform to the Fifth Unregulated Contaminant Monitoring Rule (UCMR 5) Scope, Analytical Methods and Contaminants, 29 PFAS. All facilities shall use the same methodology to ensure consistent results. Laboratories should be familiar with the UCMR 5 standard since EPA will begin using it in 2023. Comprehensive information about the EPA UCMR 5 and sampling and testing methods for PFAS can be found at: <https://www.epa.gov/dwucmr/fifth-unregulated-contaminant-monitoring-rule>.

The Department locations with PFAS concentrations above the health advisory level of 70 ppt shall provide an alternate drinking water source, take corrective actions, and implement treatment to achieve concentrations that conform with the health advisory level or applicable state regulation, whichever is stricter. The following technologies are effective in treating PFAS, and can be used in drinking water treatment facilities, individual buildings, and homes:

- **Granular Activated Carbon (GAC)** – Chemicals like PFAS stick to the small pieces of carbon as the water passes through.
- **Powdered Activated Carbon (PAC)** – The carbon is powdered and is added to the water. The chemicals then stick to the powdered carbon as the water passes through.
- **Ion Exchange Resins** – Small beads (called resins) are made of hydrocarbons that work like magnets. The chemicals stick to the beads and are removed as the water passes through.
- **Nanofiltration and reverse osmosis** – A process where water is pushed through a membrane with small pores. The membrane acts like a wall that can stop chemicals and particles from passing into drinking water.
- **Additional treatment technologies can be found at the [EPA Drinking Water Treatability Database](#).**

II. DOI will discontinue the purchase and use of products containing PFAS, whenever feasible, paying particular attention to firefighting foam. The two major classes of firefighting foam are:

- Class A Foam: Used to extinguish Class A materials, such as wood, paper, and brush (wildland), is widely used by many fire departments for structural firefighting using compressed air foam systems; and
- Class B Foam (also called aqueous film forming foam (AFFF): Used to extinguish Class B materials, which include gasoline, oil, and jet fuel.

Class A firefighting foams are used for wildfires and structural fires and do not contain PFAS chemicals. Class B firefighting foams or AFFF are often used when a liquid fuel is present in a structure or wildfire region, such as gas stations, or oil cans. AFFF contained specific PFAS chemicals in the past, but because of their persistence in the environment and well-documented health effects, some of these are being phased out in the U.S.

It may not be easy to determine whether specific foam products contain PFAS. These chemicals are not required to be reported on safety data sheets (SDS) because they currently are not considered a hazardous substance, and they may not be listed under any active ingredients list. A good indicator that the foam contains PFAS is if the terms “fluorosurfactant,” “fluoroprotein,” “C8,” or “fluoro” are mentioned; however, not all fluorinated surfactants are made of PFAS. The recommended approach is to note the brand and manufacturer of the foam and contact the manufacturer in writing to see if PFAS are used in its production and ask for the SDS.

The recognition that PFAS compounds are widespread in the environment and that they may cause significant health effects compels action to minimize exposure risks during the period that regulatory standards are being developed. The Department is taking the interim actions outlined in this memorandum to protect the health and safety of our employees, visitors, and trust resources. The policies and procedures set forth here are intended as guidance to the Department and its employees. They do not constitute rulemaking by the Department and may not be relied on to create a substantive or procedural right enforceable by any other person. The Government may take action that is at variance with the policies and procedures in this policy. If you have any questions concerning this guidance, please work with your Bureau Environmental Compliance Office, or contact Dawn Gunning, Sustainability and Environmental Compliance Manager, OEPC, at 202-208-3901, dawn_gunning@ios.doi.gov.