



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF WATER

April 28, 2022

MEMORANDUM

SUBJECT: Addressing PFAS Discharges in EPA-Issued NPDES Permits and Expectations Where EPA is the Pretreatment Control Authority

FROM: Radhika Fox
Assistant Administrator

A handwritten signature in black ink, appearing to be "R. Fox", is written over the name and title of the sender.

TO: Water Division Directors
EPA Regions 1-10

The National Pollutant Discharge Elimination System (NPDES) program is an important tool established by the Clean Water Act (CWA) to help address water pollution by regulating point sources that discharge pollutants to waters of the United States. Collectively, the U.S. Environmental Protection Agency (EPA) and states issue thousands of permits annually, establishing important monitoring and pollution limits for publicly owned treatment works, industrial facilities, and stormwater discharges nationwide. Consistent with the agency's commitments in the October 2021 [PFAS Strategic Roadmap: EPA's Commitments to Action 2021-2024 \(PFAS Strategic Roadmap\)](#), EPA will use the NPDES program to restrict PFAS discharges to water bodies. For federally-issued permits, EPA will include requirements to monitor for PFAS, include requirements to use best management practices like product substitution and good housekeeping practices, and establish practices to address PFAS-containing firefighting foams in storm water. In addition to reducing PFAS discharges, this program will enable EPA to obtain comprehensive information on the sources and quantities of PFAS discharges and will use these data to inform the agency's Effluent Limitation Guidelines (ELG) actions.

This memorandum details how the EPA will address PFAS discharges in EPA-issued NPDES permits and for Industrial Users (IUs) where EPA is the pretreatment control authority. These recommendations reflect the agency's commitments in the PFAS Roadmap and supplant previous NPDES and pretreatment guidance concerning PFAS.¹ The PFAS Strategic Roadmap directs the Office of Water to leverage NPDES permits to reduce PFAS discharges to waterways "at the source and obtain more comprehensive information through monitoring on the sources of PFAS and quantity of PFAS discharged by these sources." While the Office of Water works to revise ELGs and develop water quality criteria to support technology-based and water quality-based effluent limits for PFAS in NPDES permits, this memorandum describes steps permit writers can implement under existing authorities to

¹ Specifically, this memo supplants the *Interim Strategy for Per- and Polyfluoroalkyl Substances in Federally Issued National Pollutant Discharge Elimination System Permits* dated November 22, 2020.

reduce the discharge of PFAS.²

EPA-issued NPDES permits should include the permit conditions described below, as appropriate, for facilities where PFAS is expected or likely to be present in their discharge.

A. Recommended Permit Conditions for Applicable Industrial Direct Dischargers

1. Applicability: Industry categories known or suspected to discharge PFAS as identified on page 14 of the PFAS Strategic Roadmap include: organic chemicals, plastics & synthetic fibers (OCPSF); metal finishing; electroplating; electric and electronic components; landfills; pulp, paper & paperboard; leather tanning & finishing; plastics molding & forming; textile mills; paint formulating, and airports.

This is not an exhaustive list and additional industries may also discharge PFAS. For example, Centralized Waste Treatment (CWT) facilities may receive wastes from the aforementioned industries and should be considered for monitoring. There may also be categories of dischargers that do not meet the applicability criteria of any existing ELG; for instance, remediation sites, chemical manufacturing not covered by OCPSF, and military bases.

Effluent-monitoring: In the absence of a final 40 CFR § 136 method, use Clean Water Act (CWA) wastewater [draft analytical method 1633](#). (See [40 CFR 122.21\(e\)\(3\)\(ii\)](#) and [40 CFR 122.44\(i\)\(1\)\(iv\)\(B\)](#)). Monitoring should include each of the 40 PFAS parameters detectable by draft method 1633 and the monitoring frequency should be at least quarterly to ensure that there are adequate data to assess the presence and concentration of PFAS in discharges. All PFAS monitoring data must be reported on Discharge Monitoring Reports (DMRs) (see 122.41(l)(4)(i)). The draft Adsorbable Organic Fluorine CWA wastewater method 1621 can be used in conjunction with draft method 1633, if appropriate.

- 2. Best Management Practices (BMPs) for PFAS, including product substitution, reduction, or elimination for discharges with PFAS as detected by method 1633:** Pursuant to 40 CFR 122.44(k)(4), EPA-issued permits to facilities should incorporate the following conditions when the practices are reasonably necessary to carry out the intent of the CWA:³
- a. BMPs conditions based on pollution prevention/source reduction opportunities which may include:
 - i. Product elimination or substitution when a reasonable alternative to using PFAS is available in the industrial process.
 - ii. Accidental discharge minimization by optimizing operations and good housekeeping practices.
 - iii. Equipment decontamination or replacement (such as in metal finishing facilities) where PFAS products have historically been used to prevent discharge of legacy PFAS following the implementation of product substitution.
 - b. Example BMP permit special condition language:
 - i. *PFAS pollution prevention/source reduction evaluation:* Within 6 months of the effective date of the permit, the facility shall provide an evaluation of whether the facility uses or has

² This memo applies to EPA-issued permits within states, territories, and tribes for which no water quality criteria has been adopted for any PFAS parameter. If a state or tribe with treatment as a state has established a numeric translation of an existing narrative water quality standard for PFAS parameters, pursuant to 40 CFR 122.44(d)(1)(vi)(A), the EPA permit writer should apply that interpretation in EPA permitting decisions.

³ For more on BMPs, see [NPDES Permit Writer's Manual Section 9.1](#) and [EPA Guidance Manual for Developing Best Management Practices](#).

- historically used any products containing PFAS, whether use of those products or legacy contamination reasonably can be reduced or eliminated, and a plan to implement those steps.
- ii. *Reduction or Elimination*: Within 12 months of the effective date of the permit, the facility shall implement the plan in accordance with PFAS pollution prevention/source reduction evaluation.
 - iii. *Annual Report*: An annual status report shall be developed which includes a list of potential PFAS sources, summary of actions taken to reduce or eliminate PFAS, PFAS source reduction implementation, source monitoring results, and effluent results for the previous year, and adjustments to the Plan, based on the findings.
 - iv. *Reporting*: EPA's electronic reporting tool for DMRs (called "NetDMR") will include the ability for the permittee to submit the pollution prevention / source reduction evaluation and the annual report.

- 3. BMPs to address PFAS-containing firefighting foams for stormwater permits:** Pursuant to 122.44(k)(2), where appropriate, EPA-issued permits should include BMPs to address Aqueous Film Forming Foam (AFFF) used for firefighting in stormwater permits.⁴
- a. Prohibiting the use of AFFFs in stormwater permits other than for actual firefighting.
 - b. Eliminating PFOS- and PFOA-containing AFFFs.
 - c. Requiring immediate clean-up in all situations where AFFFs have been used, including diversions and other measures that prevent discharges via storm sewer systems.

B. Recommended Permit Conditions for Publicly Owned Treatment Works

1. **Applicability:** EPA-issued permits to publicly owned treatment works (POTWs) and where EPA is the pretreatment control authority.
2. **Effluent, influent, and biosolids monitoring:** In the absence of a final 40 CFR § 136 method, use CWA wastewater [draft analytical method 1633](#). (See [40 CFR 122.21\(e\)\(3\)\(ii\)](#) and [40 CFR 122.44\(i\)\(1\)\(iv\)\(B\)](#)). Monitoring should include each of the 40 PFAS parameters detectable by draft method 1633 and the monitoring frequency should be at least quarterly to ensure that there are adequate data to assess the presence and concentration of PFAS in discharges. All PFAS monitoring data must be reported on DMRs (see 122.41(l)(4)(i)). The draft Adsorbable Organic Fluorine CWA wastewater method 1621 can be used in conjunction with draft method 1633, if appropriate.
3. **Pretreatment program activities where EPA is the control authority:**
 - a. Update IU Inventory: Permits to POTWs should contain permit requirements to identify and locate all possible IUs that may be subject to the pretreatment program and identify the character and volume of pollutants contributed to the POTW by the IUs. This information shall be provided to the EPA pretreatment control authority (see 40 CFR 122.44(j) and 40 CFR 403.8(f)(6)) within one year. The IU inventory shall be revised, as necessary, to include all IUs in industry categories expected or suspected of PFAS discharges listed above.⁵
 - b. Require BMPs and pollution prevention to address PFAS discharges to POTWs.
 - i. Update IU permits/control mechanisms to require quarterly monitoring.

⁴ [Naval Air Station Whidbey Island MS4 permit](#) incorporates these provisions.

⁵ ELG categories of **airport deicing, landfills, textile mills, and plastics molding and forming do not have categorical pretreatment standards**, and therefore small-volume indirect dischargers in those categories would not ordinarily be considered Significant Industrial Users (SIUs) and may not be captured on an existing IU inventory. IUs under the Paint Formulating category are only subject to Pretreatment Standards for New Sources (PSNS), and existing sources may need to be inventoried.

- ii. Where authority exists, develop IU BMPs or local limits. 40 CFR 403.5(c)(4) authorizes POTWs to develop local limits in the form of BMPs. Such BMPs could be like those for industrial direct discharges described in A.3 above.
- iii. In the absence of local limits, the regional pretreatment coordinators are encouraged to work with the POTWs to encourage pollution prevention, product substitution, and good housekeeping practices to make meaningful reductions in PFAS releases to POTWs.

C. Recommended Public Notice Expectation for Draft Permits with PFAS-Specific Conditions

- 1. In addition to the requirements for public notice described in 40 CFR 124.10, EPA Regions are expected to provide notification to potentially affected downstream public water systems (PWS) of draft permits with PFAS-specific monitoring, BMPs, or other conditions:**
- a. Public notice of the draft permit should be provided to potentially affected PWS with intakes located downstream of the NPDES discharge.
 - b. EPA permit writers are encouraged to collaborate with their drinking water program counterparts to determine on a site-specific basis which PWS should be notified.
 - i. EPA's Drinking Water Mapping Application to Protect Source Waters ([DWMAPS](#)) tool may be helpful as a screening tool to identify potentially affected PWS that should be notified.
 - c. EPA will provide instructions on how to search for facility-specific discharge monitoring data in EPA's publicly available search tools.

The Office of Water will re-engage with the national PFAS workgroup to identify needs for training and technical assistance to implement the Administrator's PFAS priorities in NPDES permits and coordinate permit efforts. EPA plans to issue additional guidance to state permit writers and local pretreatment authorities to address PFAS. Questions regarding this policy memorandum or other PFAS efforts in NPDES permits should be directed to the NPDES/PFAS national workgroup lead, Marcus Zobrist, at zobrist.marcus@epa.gov.