

January 31, 2025

MEMORANDUM

To: Wastewater Regulatory Program

From: Whitney Fenwick

Subject: Per- and Polyfluorinated Substances (PFAS) Permitting Strategy

1. Background

On April 10, 2024, EPA announced the final National Primary Drinking Water Regulation (NPDWR) for six PFAS, including perfluorooctanoic acid (PFOA), perfluorooctanesulfonic acid (PFOS), perfluorobutanesulfonic acid (PFBS), hexafluoropropylene oxide dimer acid and its ammonium salt (GenX), perfluorononanoic acid (PFNA), and perfluorohexane sulfonic acid (PFHxS). The NPDWR includes Maximum Contaminant Levels (MCLs) of 4.0 parts per trillion (ppt) for PFOA, 4.0 ppt for PFOS, 10 ppt for PFHxS, 10 ppt for PFNA, 10 ppt for GenX and a hazard index of 1.0 for any mixture containing PFHxS, GenX, PFNA, and/or PFBS.

The Rules and Regulations of the State of Georgia 391-3-6 (GA. COMP. R. & REGS. 391-3-6) establish MCLs as the compliance point for wastewater treatment facilities in two scenarios. First, for Land Application Systems, per GA. COMP. R. & REGS. 391-3-6-.11(4)(e), “The groundwater leaving the land disposal systems boundaries must not exceed maximum contaminant levels for drinking water in accordance with Chapter 391-3-5 and subsequent amendments.” Additionally, for point source dischargers, per GA. COMP. R. & REGS. 391-3-6-.03(6)(a)(iv), “No material or substance in such concentration that, after treatment by the public water treatment system, exceeds the maximum contaminant level established for that substance by the Environmental Protection Division pursuant to the Georgia Rules for Safe Drinking Water.”

After Georgia has adopted those MCLs for drinking water in Chapter 391-3-5, LAS permittees will be required to meet the new MCLs in the groundwater in the downgradient monitoring wells. NPDES permitted discharges to receiving streams with a designated use of drinking water will be evaluated to ensure that PFAS will not exceed the MCL after treatment by the public water systems. This document outlines EPD’s strategy for incorporating these new requirements, including monitoring, into wastewater permits.

There are currently no in-stream water quality standards for PFAS in Georgia or federally established technology-based limits for PFAS. However, on October 7, 2024, EPA published *Final Recommended Aquatic Life Criteria and Benchmarks for Select PFAS*. On December 17, 2024, EPA published draft *National Recommended Ambient Water Quality Criteria for the Protection of Human Health For PFOA, PFOS, and PFBS*. This document will be updated at a future date if water quality standards or technology-based limits for PFAS are proposed.

2. Analytical Methods

There is currently no promulgated 40 CFR § 136 analytical method for PFAS in raw groundwater, wastewater, and sludge. EPA has published two final analytical methods:

- *Method 1633, Analysis of Per- and Polyfluoroalkyl Substances (PFAS) in Aqueous, Solid, Biosolids, and Tissue Samples by LC-MS/MS,*
- *Method 1621, Screening Method for the Determination of Adsorbable Organic Fluorine (AOF) in Aqueous Matrices by Combustion Ion Chromatography (CIC).*

On December 6, 2024, EPA submitted a proposed rule for publication in the Federal Register which includes the promulgation of analytical methods 1633 and 1621 into 40 CFR § 136. The proposed rule has not been published as of the date of this draft.

3. Permitted Facilities

LAS

EPD has 373 facilities with LAS permit coverage. Of the 373 facilities, approximately 255 are for the disposal of domestic/sanitary wastewater, 38 are for industrial wastewater, 80 are for Concentrated Animal Feeding Operations, and 8 are for the application of domestic septage.

NPDES

EPD has 374 facilities with NPDES coverage. Of the 373 facilities, approximately 126 discharge to receiving waterbodies with a designated use of Drinking Water. Of those 126 facilities, 47 are discharges of filter backwash from drinking water treatment plants, 22 are industrial dischargers, and 57 are discharges of domestic/sanitary wastewater.

4. Identifying Facilities with the Potential for PFAS

All publicly-owned treatment works (POTWs) may have the presence of PFAS in their influent and effluent due to the presence of PFAS in common household products and in discharges from non-significant industrial users, such as landfill leachate.

Industry categories known or suspected to discharge PFAS as identified in *PFAS Strategic Roadmap: EPA's Commitments to Action 2021—2024* (October 2021) 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
- airports
- centralized waste treatment systems
- remediation sites
- other chemical manufacturing (not OCPSF)
- military bases

Appendix A contains a list of corresponding SIC or NAICS codes which can be used for initial screening.

5. Wastewater Permit Implementation

LAS

Following the finalization of this strategy, LAS permits for POTWs and the industrial categories identified in Section 4 will include monitoring for PFAS. To align with the sampling requirements for the PFAS MCLs, monitoring will be required at a frequency of quarterly. The MCLs for drinking water will require compliance with the PFAS MCLs by 2029. Once Georgia has adopted PFAS MCLs for drinking water in Chapter 391-3-5, LAS permittees will be required to meet the new MCLs in the groundwater in the downgradient monitoring wells. To coincide with the drinking water MCL requirements, these limits will go into effect in 2029. Compliance with the MCL will be determined by an annual average of the quarterly samples.

NPDES

Once analytical Method 1633 has been adopted at 40 CFR § 136 for use in Clean Water Act permitting, EPD will begin requiring monitoring for PFAS. This monitoring will be included in NPDES permits with discharges upstream from drinking water treatment plants in receiving streams with a designated use of drinking water. Monitoring will be required for all POTWs and the industrial categories identified in Section 4. To align with the sampling requirements for the PFAS MCLs, monitoring will be required at a frequency of quarterly. As monitoring data becomes available, it will be evaluated to ensure that PFAS will not exceed the MCL after treatment by the public water systems. Following Georgia's adoption of the MCL in Chapter 391-3-5, if effluent limits are necessary for the protection of the drinking water treatment plant, compliance with the permit limit will be determined by an annual average of the quarterly samples.

Industrial Pretreatment

There are currently no instream water quality standards or federal pretreatment standards, and therefore no basis for the development of numeric local limits for PFAS. At their discretion, cities and counties implementing approved Industrial Pretreatment Programs may require industrial user surveys, best management practices, or monitoring in accordance with EPA Memo Addressing *PFAS Discharges in NPDES Permits and Through the Pretreatment Program and Monitoring Programs* (December 5, 2022).

6. Timeline for Permitting Implementation

The following table provides a timeline for the inclusion of monitoring and/or effluent limits in wastewater permits.

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| Notification to stakeholders of this strategy. | January 2025 |
| Effluent and groundwater monitoring in LAS permit reissuances for POTWs and industry categories identified in Section 4. Groundwater monitoring will include upstream, midgradient, and downgradient wells. Influent sampling will also be required for any POTW which has an approved Industrial Pretreatment Program. | February 2025 |
| EPD to initiate rulemaking for adopting the MCL. | Anticipated completion July 2025 – January 2026 |
| Following the promulgation of analytical Method 1633 at 40 CFR § 136, EPD to include effluent monitoring in NPDES permits reissuances for POTWs and industry categories identified in Section 4 which discharge to receiving waters with a designated use of drinking water. | 2025 |
| Following adoption of the MCL by EPD, NPDES dischargers to receiving waters with a designated use of drinking water to be evaluated to ensure PFAS is not discharged at a level that could cause an exceedance of the MCL after treatment by the drinking water treatment plant. | TBD |
| LAS permittees required to meet MCL in downgradient monitoring wells. | 2029 |

Appendix A: Industrial Categories NAICS/SIC Codes

NAICS Code

- Centralized Waste Treatment Systems
 - 562211: Hazardous Waste Treatment and Disposal
 - 562219: Other Nonhazardous Waste Treatment and Disposal
 - 562920: Materials Recovery Facilities
- Electric And Electronic Components (NAICS)
 - 325180: Other Basic Inorganic Chemical Manufacturing
 - 334413: Semiconductor and Related Device Manufacturing
 - 334418: Printed Circuit Assembly (Electronic Assembly) Manufacturing
 - 334419: Other Electronic Component Manufacturing
- Military Bases
 - 928110: National Security
- Paint Formulating
 - 325510: Paint and Coating Manufacturing
- Plastics Molding & Forming (SIC)
 - 32611: Plastics Packaging Materials and Unlaminated Film and Sheet Manufacturing
 - 32612: Plastics Pipe, Pipe Fitting, and Unlaminated Profile Shape Manufacturing
 - 32613: Laminated Plastics Plate, Sheet (except Packaging), and Shape Manufacturing
 - 32614: Polystyrene Foam Product Manufacturing
 - 32615: Urethane and Other Foam Product (except Polystyrene) Manufacturing
 - 32616: Plastics Bottle Manufacturing
 - 32619: Other Plastics Product Manufacturing
- Remediation Sites
 - 56291: Remediation Services
- Textile Mills
 - 31311: Fiber, Yarn, and Thread Mills
 - 313210: Broadwoven Fabric Mills
 - 313220: Narrow Fabric Mills and Schiffli Machine Embroidery
 - 313230: Nonwoven Fabric Mills
 - 313240: Knit Fabric Mills
 - 313310: Textile and Fabric Finishing Mills
 - 313320: Fabric Coating Mills

SIC Code

- Airports
 - 4581: Airports, Flying Fields, and Airport Terminal Services
- Landfills
 - 4953: Refuse Systems
- Leather Tanning & Finishing
 - 3111: Leather Tanning and Finishing
- Metal Finishing

The Metal Finishing regulation is defined by manufacturing processes and not by industrial sectors. However, facilities regulated by the Metal Finishing Effluent Guidelines are often included in the SIC Major Groups 34 through 39:

 - Fabricated Metal Products, except Machinery and Transportation
 - Machinery, except Electrical
 - Electrical and Electronic Machinery, Equipment and Supplies
 - Transportation Equipment
 - Measuring, Analyzing and Controlling Instruments: Photograph; Optical Goods; Watches and Clocks
 - Miscellaneous Manufacturing Industries
- Organic Chemicals Plastics & Synthetic Fibers
 - 2821: Plastic Materials, Synthetic Resins, and Nonvulcanizable Elastomers
 - 2823: Cellulosic Man-Made Fibers
 - 2824: Synthetic Organic Fibers, Except Cellulosic
 - 2865: Cyclic Crudes and Intermediates, Dyes, and Organic Pigments
 - 2869: Industrial Organic Chemicals, Not Elsewhere Classified
- Pulp, Paper & Paperboard
 - 2611: Pulp Mills
 - 2621: Paper Mills
 - 2631: Paperboard Mills
- Electroplating
- Other Chemical Manufacturing