



## MEMORANDUM

DATE: September 30, 2023

TO: Staff, Bureau of Materials Management and Compliance Assurance, Water Permitting and Enforcement Division and Permitted Stakeholders, WPCF Superintendents, and Environmental Professionals

FROM: Audra Dickson, Director, Bureau of Materials Management and Compliance Assurance, Water Permitting and Enforcement Division

SUBJECT: NPDES & Pretreatment PFAS Roadmap

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This memorandum provides information to stakeholders on how the Department of Energy and Environmental Protection's ("DEEP") Water Permitting and Enforcement Division ("WPED") is responding to the evolving regulatory landscape around the emerging contaminant Per- and Polyfluorinated substances ("PFAS").

### Background

PFAS are a group of synthetic chemicals that have been manufactured and used in a variety of industries in the United States. They do not break down in the environment, can move through soils to contaminate drinking water sources, and bioaccumulate in fish and wildlife. Exposure at certain levels to specific PFAS can adversely impact human health. EPA, in its effort to reduce PFAS discharges to waterways, issued a memo on December 5, 2022.<sup>1</sup> The memo recommends that states and municipalities use the most current sampling and analysis methods in their NPDES and pretreatment programs to identify known or suspected sources of PFAS and to take actions using their permitting authorities.

On July 8, 2019, Connecticut established an Interagency Task Force and a PFAS Action Plan was developed on November 1, 2019.<sup>2</sup> The action plan contains strategy to:

- 1) Minimize environmental exposure to PFAS for Connecticut residents,
- 2) Minimize future releases of PFAS to the environment, and
- 3) Identify, assess, and clean up historical releases of PFAS to the environment.

Currently, WPED, like many other divisions in DEEP, is at the investigatory stage, meaning we are identifying potential facilities with known discharges of PFAS and collecting data. As a result of federal and state collaboration, facilities listed in Appendix A to this memo, have been identified to possibly have PFAS in their wastewaters.<sup>3</sup> DEEP is acquiring PFAS effluent data from those facilities for identification of contributing sources and regulatory assessment.

### Permit Monitoring Requirements & Permit Applications

Newly issued permits or registrations of facilities related to the activities identified in Appendix A or facilities with known sources of PFAS, will contain a special condition or compliance schedule requiring permittees to develop and implement a PFAS monitoring/sampling plan.

The following permit condition is provided as an example and the exact permit condition may vary on a case-by-case basis dependent on circumstances surrounding the discharge (ex. increased sampling to account for seasonal variability, discharge duration, and frequency, etc.).

Example Permit Language:

1. Within 30 days from the effective date of the permit, the Permittee must retain a Qualified Professional to oversee the remaining milestones in the special condition/compliance schedule.
  - 1.1. A Qualified Professional is someone who has demonstrated knowledge of PFAS and sampling/analytical methods associated with quantifying PFAS.
2. Within 120 days from the effective day of the permit, the Permittee will submit a Sampling Plan to DEEP for review and approval. The sampling plan must indicate at least two sampling events of the prescribed discharge.
  - 2.1. Test method must be a method approved by EPA pursuant to 40 CFR 136 and performed by a lab certified by CT DPH.<sup>4</sup> If no method is approved by EPA pursuant to 40 CFR 136, EPA Draft Method 1633<sup>5</sup> or modified EPA method 537.1<sup>6</sup> including isotope dilution that follows the Department of Defense's Quality System Manual Table B-15 QA/QC requirements shall be used.<sup>7</sup>
  - 2.2. Sampling plans shall include the test method, laboratory, schedule of sampling events, sampling protocols including sample quality control procedures to be implemented, sampling locations, and number and volume of samples to be collected at each location.<sup>8</sup>
3. Once DEEP approves the Sampling Plan, the Permittee will have 30 days to complete the sampling plan and 30 days from receiving all analytical results from the laboratory to report the results to DEEP into netDMR (or via e-mail if the parameters are not available on the discharge monitoring report).

WPED will evaluate the information and share the data with other Agencies and Divisions as needed. Routine monitoring at a specified frequency and or treatment requirements may be implemented on a case-by-case basis. The regulatory landscape is ever evolving and DEEP will adjust this permit condition as needed.

Next Steps

DEEP is working on updating the wastewater permit applications to require PFAS screening. The screening data from applications and those from aforementioned special conditions in permits will help identify contributory sources of PFAS into both POTWs, surface waters and ground waters. The collation and evaluation of the screening data will help DEEP allocate resources on future initiatives around PFAS mitigation including monitoring requirements, source reduction, and treatment technologies.

WPED is dedicated to protecting the health of Connecticut residents and the environment from the potentially harmful effects of PFAS and the collection of data to understand the landscape is an integral step in the development of a roadmap to reduce or eliminate the discharge of PFAS. The development of a numeric water quality criteria is a powerful permitting tool but there are currently no numeric water quality criteria or standards for PFAS in Connecticut or at the national level. DEEP will begin including numeric limits in permits once water quality standards are promulgated. In the interim, DEEP may include technology requirements on a case – by – case basis. DEEP is closely following EPA's PFAS Strategic Roadmap and will continue to consider new federal guidance and implement applicable federal regulations as they are promulgated.

AD/BB/OF/MG

<sup>1</sup> [NPDES PFAS State Memo December 2022.pdf \(epa.gov\)](#)

<sup>2</sup> [CT-Interagency-PFAS-Task-Force-Action-Plan.pdf](#)

<sup>3</sup> [Effluent Guidelines Program Plan 15, January 2023 \(epa.gov\)](#)

<sup>4</sup> [CT-Approved-Laboratories-Certified-to-Test-PFOS\\_PFOA\\_Revised--1\\_2023.pdf](#)

<sup>5</sup> [3rd Draft Method 1633 Analysis of Per- and Polyfluoroalkyl Substances \(PFAS\) in Aqueous, Solid, Biosolids, and Tissue Samples by LC-MS/MS \(epa.gov\)](#)

<sup>6</sup> [Method 537.1 Determination of Selected Per- and Polyfluorinated Alkyl Substances in Drinking Water by Solid Phase Extraction and Liquid Chromatography/Tandem Mass Spectrometry \(LC/MS/MS\) | Science Inventory | US EPA](#)

<sup>7</sup> [Department of Defense QSM \(osd.mil\)](#)

<sup>8</sup> [General.pdf \(michigan.gov\)](#)

## Appendix A

<b>NAICS Code</b>	<b>NAICS Description</b>	<b>SIC Code</b>	<b>Description</b>
<b>812300</b>	Commercial Laundry	3582	Commercial Laundry, Drycleaning, and Pressing Machines
<b>211120</b>	Crude Petroleum Extraction		Crude Petroleum Extraction
<b>211130</b>	Natural Gas Extraction	2819	Industrial Inorganic Chemicals, NEC (recovering sulfur from natural gas)
<b>212221</b>	Gold Ore Mining	1041	Gold Ores
<b>212230</b>	Copper, Nickel, Lead, and Zinc Mining		Natural Gas Extraction
<b>212291</b>	Uranium-Radium-Vanadium Ore Mining	1094	Uranium-Radium-Vanadium Ores
<b>221320</b>	Sewage Treatment Facilities	4952	Sewerage Systems
<b>238320</b>	Painting and Wall Covering Contractors*	1721	Painting and Paper Hanging
<b>238320</b>	Painting and Wall Covering Contractors*	1799	Special Trade Contractors, Note Elsewhere Classified
<b>313110</b>	Fiber, Yarn, and Thread Mills	2299	Textile goods, Not Elsewhere Classified
<b>313110</b>	Fiber, Yarn, and Thread Mills	2281	Yarn Spinning Mills
<b>313110</b>	Fiber, Yarn, and Thread Mills	2282	Yarn Texturizing, Throwing, Twisting, and Winding Mills
<b>313110</b>	Fiber, Yarn, and Thread Mills	2284	Thread Mills
<b>313110</b>	Fiber, Yarn, and Thread Mills	2298	Cordage and Twine
<b>313210</b>	Broadwoven Fabric Mills	2221	Broadwoven Fabric Mills, Manmade Fiber and Silk
<b>313210</b>	Broadwoven Fabric Mills	2211	Broadwoven Fabric Mills, Cotton
<b>313210</b>	Broadwoven Fabric Mills	2231	Broadwoven Fabric Mills, Wool (Including Dyeing and Finishing)
<b>313220</b>	Narrow Fabric Mills and Schiffli Machine Embroidery	2241	Narrow Fabric and Other Smallware Mills: Cotton, Wool, Silk, and Manmade Fiber
<b>313220</b>	Narrow Fabric Mills and Schiffli Machine Embroidery	2397	Schiffli Machine Embroideries
<b>313230</b>	Nonwoven Fabric Mills	2297	Non-woven Fabrics
<b>313240</b>	Knit Fabric Mills	2257	Weft Knit Fabric Mills
<b>313240</b>	Knit Fabric Mills	2258	Lace and Warp Knit Fabric Mills
<b>313240</b>	Knit Fabric Mills	2259	Knitting Mills, Not Elsewhere Classified
<b>313310</b>	Textile and Fabric Finishing Mills	2262	Finishers of Broadwoven Fabrics of Manmade Fiber and Silk
<b>313320</b>	Fabric Coating Mills*	2295	Coated Fabrics, Not Rubberized
<b>313320</b>	Fabric Coating Mills*	3069	Fabricated Rubber Products, Not Elsewhere Classified

<b>NAICS Code</b>	<b>NAICS Description</b>	<b>SIC Code</b>	<b>Description</b>
<b>314110</b>	Carpet and Rug Mills	2273	Carpets and Rugs
<b>314910</b>	Textile Bag and Canvas Mills	2394	Canvas and Related Products
<b>314910</b>	Textile Bag and Canvas Mills	2392	House furnishings, Except Curtains and Draperies
<b>314910</b>	Textile Bag and Canvas Mills	2393	Textile Bags
<b>314910</b>	Textile Bag and Canvas Mills	3069	Fabricated Rubber Products, Not Elsewhere Classified
<b>314999</b>	All Other Miscellaneous Textile Product Mills	2392	House furnishings, Except Curtains and Draperies
<b>314999</b>	All Other Miscellaneous Textile Product Mills	2385	Waterproof Outerwear
<b>315210</b>	Cut and Sew Apparel Contractors*		
<b>315280</b>	Other Cut and Sew Apparel Manufacturing*		
<b>315990</b>	Apparel Accessories and Other Apparel Manufacturing*		
<b>316110</b>	Leather & Hide Tanning & Finishing	3111	Leather Tanning and Finishing
<b>316210</b>	Footwear Manufacturing*		
<b>316998</b>	All Other Leather Good & Allied Product Mfg*		Other Leather Goods and Allied Product Manufacturing
<b>322110</b>	Pulp Mills	2611	Pulp Mills
<b>322121</b>	Paper (except Newsprint) Mills	2621	Paper Mills
<b>322130</b>	Paperboard Mills*	2631	Paperboard Mills
<b>322212</b>	Folding Paperboard Box Manufacturing	2657	Folding Paperboard Boxes, Including Sanitary
<b>322219</b>	Other Paperboard Container Manufacturing	2656	Sanitary Food Containers, Except Folding
<b>322220</b>	Paper Bag and Coated and Treated Paper Manufacturing*	2673	Plastics, Foil, and Coated Paper Bags
<b>322220</b>	Paper Bag and Coated and Treated Paper Manufacturing*	2672	Coated and Laminated Paper, Not Elsewhere Classified
<b>322220</b>	Paper Bag and Coated and Treated Paper Manufacturing*	2671	Packaging Paper and Plastics Film, Coated and Laminated
<b>322230</b>	Stationary Product Manufacturing*	2679	Converted Paper and Paperboard Products, Not Elsewhere Classified
<b>323111</b>	Commercial Printing (except Screen and Books)	2752	Commercial Printing, Lithographic
<b>323120</b>	Support Activities for Printing	2796	Platemaking and Related Services
<b>324110</b>	Petroleum Refineries*	2911	Petroleum Refining
<b>324191</b>	Lubricating Oils and Greases	2992	Lubricating Oils and Greases

<b>NAICS Code</b>	<b>NAICS Description</b>	<b>SIC Code</b>	<b>Description</b>
<b>325110</b>	Petrochemical Manufacturing	2869	Industrial Organic Chemicals, NEC (aliphatics)
<b>325120</b>	Industrial Gas Manufacturing	2813	Industrial Gas
<b>325130</b>	Synthetic Dye and Pigment Manufacturing	2819	Industrial Inorganic Chemicals, NEC (recovering sulfur from natural gas)
<b>325180</b>	Other Basic Inorganic Chemical Manufacturing	2819	Industrial Inorganic Chemicals, Not Elsewhere Classified
<b>325193</b>	Ethyl Alcohol Manufacturing	2869	Industrial Organic Chemicals, Not Elsewhere Classified
<b>325199</b>	All Other Basic Organic Chemical Manufacturing *	2899	Chemicals and Chemical Preparations, Not Elsewhere Classified
<b>325199</b>	All Other Basic Organic Chemical Manufacturing*	2869	Industrial Organic Chemicals, Not Elsewhere Classified
<b>325211</b>	Resin and Synthetic Rubber Manufacturing	2821	industrial surfactants, resins, molds, plastics
<b>325211</b>	Plastics Material and Resin Manufacturing	2821	Plastics Materials, Synthetic Resins, and Nonvulcanizable Elastomers
<b>325212</b>	Synthetic Rubber Manufacturing	2822	Synthetic Rubber
<b>325220</b>	Artificial and Synthetic Fibers and Filaments Manufacturing	2824	Manmade Organic Fibers, Except Cellulosic
<b>325510</b>	Paint and Coating Manufacturing*	2851	Paints, Varnishes, Lacquers, Enamels, and Allied Products
<b>325510</b>	Paint and Coating Manufacturing*	2899	Chemical Preparations, NEC (table salt)
<b>325520</b>	Adhesive Manufacturing	2891	Adhesives and sealants
<b>325611</b>	Soap and Other Detergent Manufacturing	2841	Soaps and Other Detergents, Except Specialty Cleaners
<b>325611</b>	Soap and Other Detergent Manufacturing	2844	Perfumes, Cosmetics, and other Toilet Preparations
<b>325612</b>	Polish and Other Sanitation Good Manufacturing	2842	Specialty Cleaning, Polishing, and Sanitation Preparations
<b>325613</b>	Surface Active Agent Manufacturing	2843	Surface Active Agents, Finishing Agents, Sulfonated Oils, and Assistants
<b>325620</b>	Toilet Preparation Manufacturing	2844	Perfumes, Cosmetics, and other Toilet Preparations
<b>325910</b>	Printing Ink Manufacturing	2893	Printing Ink
<b>325992</b>	Photographic Film, Paper, Plate, and Chemical Manufacturing	3861	Photographic Equipment and Supplies
<b>325998</b>	All Other Miscellaneous Chemical Product and Preparation Manufacturing*	2899	Chemicals and Chemical Preparations, Not Elsewhere Classified
<b>326111</b>	Plastics Bag and Pouch Manufacturing*	2673	Plastics, Foil, and Coated Paper Bags

<b>NAICS Code</b>	<b>NAICS Description</b>	<b>SIC Code</b>	<b>Description</b>
<b>326112</b>	Plastics Packaging Film and Sheet (including Laminated) Manufacturing*	2671	Packaging Paper and Plastics Film, Coated and Laminated
<b>326113</b>	Unlaminated Plastics Film and Sheet (except Packaging) Manufacturing*	3081	Unsupported Plastics Film and Sheet
<b>326121</b>	Unlaminated Plastics Profile Shape Manufacturing	3089	Plastics Products, Not Elsewhere Classified
<b>326121</b>	Unlaminated Plastics Profile Shape Manufacturing	3082	Unsupported Plastics Profile Shapes
<b>326130</b>	Laminated Plastics Plate, Sheet (except Packaging), and Shape Manufacturing	3083	Laminated Plastics Plate, Sheet, and Profile Shapes
<b>326150</b>	Urethane and Other Foam Product (except Polystyrene) Manufacturing	3086	Plastics Foam Products
<b>326199</b>	All Other Plastics Product Manufacturing*	3089	Plastics Products, Not Elsewhere Classified
<b>326211</b>	Tire Manufacturing (except Retreading)	3011	Rubber Tires
<b>326299</b>	Other Rubber Product Manufacturing	3061	Molded, Extruded, and Lathe-Cut Mechanical Rubber Goods
<b>327215</b>	Glass Product Manufacturing Made of Purchased Glass	3231	Glass Products Made of Purchased Glass
<b>327310</b>	Cement Manufacturing		Cement manufacturing
<b>331313</b>	Alumina Refining and Primary Aluminum Production		Alumina refining and primary aluminum production
<b>332215</b>	Metal Kitchen Cookware, Utensil, Cutlery, and Flatware (except Precious) Manufacturing*		
<b>332812</b>	Metal Coating, Engraving (except Jewelry and Silverware), and Allied Services to Manufacturers*	3479	Coating, Engraving, and Allied Services, NEC (except jewelry, silverware, and flatware engraving and etching)
<b>332813</b>	Electroplating, Plating, Polishing, Anodizing, and Coloring*	3471	Electroplating, Plating, Polishing, Anodizing, and Coloring
<b>332999</b>	All Other Miscellaneous Fabricated Metal Product Manufacturing	3497	Metal Foil and Leaf
<b>333241</b>	Food Product Machinery Manufacturing*	3556	Food Products Machinery

<b>NAICS Code</b>	<b>NAICS Description</b>	<b>SIC Code</b>	<b>Description</b>
333242	Semiconductor Machinery Manufacturing*	3559	Special Industry Machinery, Not Elsewhere Classified
333249	Other Industrial Machinery Manufacturing	3841	Surgical and Medical Instruments and Apparatus
333249	Surgical and Medical Instruments and Apparatus		Other industrial machinery manufacturing
333316	Photographic and Photocopying Equipment Manufacturing	3861	Photographic Equipment and Supplies
333318	Other Commercial and Service Industry Machinery Manufacturing*	3589	Service Industry Machinery, Not Elsewhere Classified
33351	Metalworking Machine Manufacturing		
333517	Machine Tool Manufacturing*	3541	Machine Tools, Metal Cutting Types
333517	Machine Tool Manufacturing*	3542	Machine Tools, Metal Forming Types
334220	Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing		Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing
334310	Audio and Video Equipment Manufacturing		Audio and Video Equipment Manufacturing
334412	Bare Printed Circuit Board Manufacturing	3672	Printed Circuit Boards
334413	Semiconductor and Related Device Manufacturing*	3674	Semiconductors and Related Devices
334418	Printed Circuit Assembly (Electronic Assembly) Manufacturing	3577	Computer Peripheral Equipment, NEC (plotter controllers)
334419	Other Electronic Component Manufacturing*	3679	Electronic Components, NEC (other electronic components)
334515	Instrument Manufacturing for Measuring and Testing Electricity and Electrical Signals*	3825	Instruments for Measuring and Testing of Electricity and Electrical Signals
335210	Small Electrical Appliance Manufacturing*		
335220	Major Household Appliance Manufacturing*	3631	Household Cooking Equipment
335931	Current-Carrying Wiring Device Manufacturing	3643	Current-Carrying Wiring Devices
335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing*	3629	Electrical Industrial Apparatus, NEC



<b>NAICS Code</b>	<b>NAICS Description</b>	<b>SIC Code</b>	<b>Description</b>
<b>336412</b>	Aircraft Engine and Engine Parts Manufacturing*	3724	Aircraft Engines and Engine Parts
<b>339114</b>	Dental Equipment and Supplies Manufacturing*	3843	Dental Equipment and Supplies
<b>339920</b>	Sporting and Athletic Goods Manufacturing	3949	Sporting and Athletic Goods, Not Elsewhere Classified
<b>424690</b>	Other Chemical and Allied Products Merchant Wholesalers	5169	Chemicals and Allied Products, Not Elsewhere Classified
<b>424710</b>	Petroleum Bulk Stations and Terminals	5171	Petroleum Bulk Stations and Terminals
<b>442291</b>	Window Treatment Stores	5719	Miscellaneous Home Furnishings Stores
<b>488119</b>	Other Airport Operations (commercial and civil aviation)	4581	Airports, Flying Fields, and Services
<b>561740</b>	Carpet and Upholstery Cleaning Services	7217	Carpet and Upholstery Cleaning
<b>561990</b>	All Other Support Services*		
<b>562111</b>	Solid Waste Collection	4212	Local Trucking Without Storage
<b>562119</b>	Other Waste Collection		
<b>562211</b>	Hazardous Waste Treatment and Disposal		
<b>562212</b>	Solid Waste Landfills	4953	Refuse Systems
<b>562213</b>	Solid Waste Combustors and Incinerators		
<b>562219</b>	Other Nonhazardous Waste Treatment and Disposal		
<b>562991</b>	Septic Tank and Related Services		
<b>611519</b>	Other Technical and Trade Schools*		
<b>811192</b>	Car Washes	7542	Carwashes
<b>811420</b>	Reupholstery and Furniture Repair	7641	Reupholstery and Furniture Repair
<b>922160</b>	Fire Protection	9224	Fire Protection
<b>928110</b>	Government establishments of the Armed Forces, including the National Guard, primarily engaged in national security and related activities	9711	Establishments of the armed forces and national security