THE CLEAN WATER ACT AND EPA'S PFAS STRATEGIC ROADMAP: NPDES PERMITTING AND PRETREATMENT

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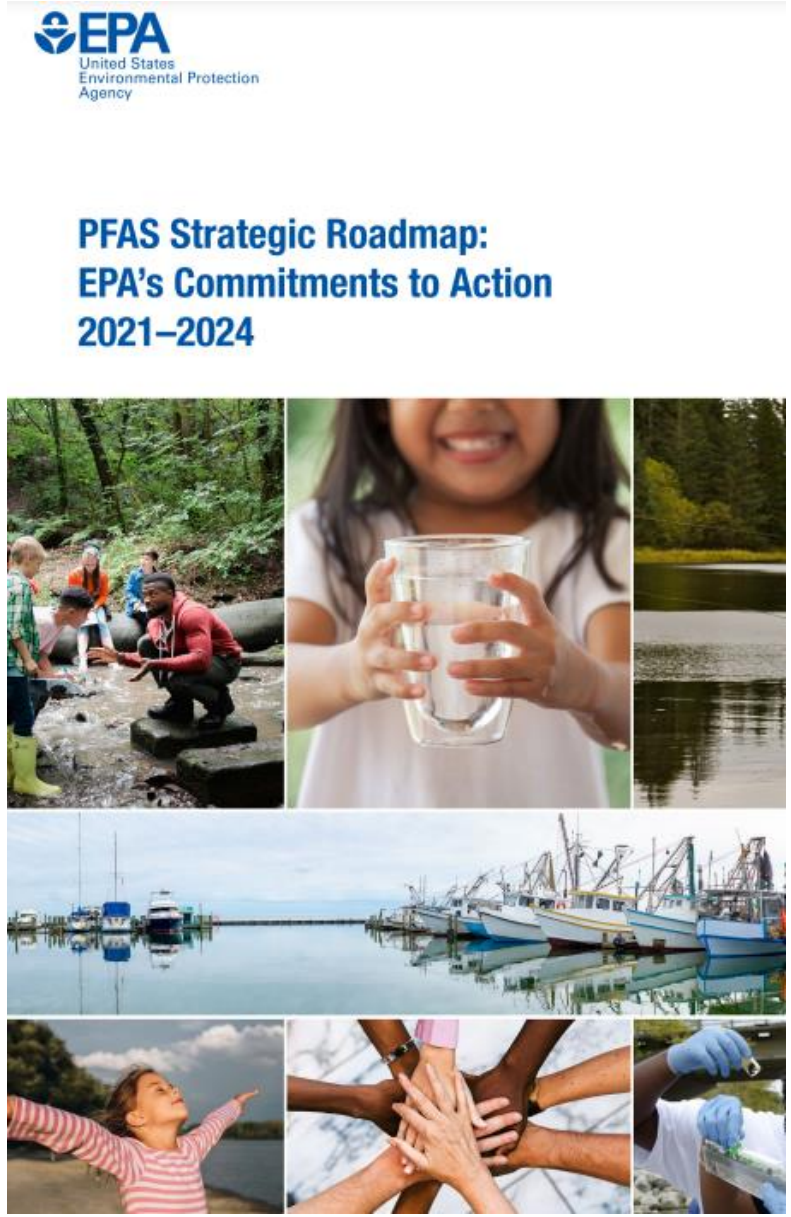
The views expressed are my own and do not necessarily represent those of the United States or U.S. EPA.

PFAS STRATEGIC ROADMAP: EPA'S COMMITMENTS TO ACTION 2021-2024

- EPA Administrator Michael Regan established the EPA Council on PFAS in April 2021.
- The Council developed the PFAS Strategic Roadmap, released in October 2021 – a bold, strategic, whole-of-EPA strategy to protect public health and the environment from PFAS.
- The Roadmap:
  - Sets timelines for concrete actions from 2021 to 2024;
  - Fills a critical gap in federal leadership;
  - Supports states' ongoing efforts; and
  - Builds on the Biden-Harris Administration's commitment to restore scientific integrity.

www.epa.gov/pfas



KEY ROADMAP ACTIONS:
PROTECTING OUR WATER

Set enforceable limits for PFOA and PFOS in drinking water *(proposed and final rules in 2023)*

Improve PFAS drinking-water data through monitoring, toxicity assessments, and health advisories *(Dec 21 & June 22)*

Develop technology-based PFAS limits for industrial dischargers *(2022 & ongoing)*

Address PFAS in Clean Water Act permitting, analytical methods, water quality criteria & fish advisories *(2022 & ongoing)*

Evaluate risks of PFAS in biosolids *(winter 2024)*

PFAS Strategic Roadmap: EPA's Commitments to Action 2021–2024

UPDATE ON CLEAN WATER ACT ROADMAP COMMITMENTS:

- Effluent Guidelines
- Methods
- Criteria
- Funding

EFFLUENT LIMITATION GUIDELINES (ELG) PROGRAM PLAN 15

1. **New Rules and Studies:**
    1. EPA is initiating a new rulemaking to revise the existing ELG for **landfills**, primarily to address PFAS in landfill leachate.
    2. Based on limited data on numerous industrial categories reviewed, EPA is initiating a new study to gather data on **industrial PFAS discharges to POTWs.**
    3. EPA is initiating a new study to gather data on **Concentrated Animal Feeding Operations (CAFOs)** to better understand the potential discharges and current implementation of the existing rule.
    4. EPA is expanding the scope of the existing **Textile Mills** detailed study to include collecting data on PFAS use and discharge though a mandatory survey from this industry.
2. **Updates to existing rulemakings and studies**
    1. including **Steam Electric ELG** (notice of proposed rulemaking by early 2023), **Meat and Poultry ELG** (proposal by Dec 2023), **PFAS Manufacturers ELG** (proposal by Spring 2024), **Metal Finishing & Electroplating ELG** (proposal by end of 2024).
    2. **Electronic and Electronical Component (E&EC)** detailed study complete with no further action pursued at this time. EPA will continue monitoring this industry through the POTW Influent Study to help identify any PFAS related issues
    3. Continue reviewing **airports** and **pulp and paper manufacturing** industry PFAS phase-outs

CWA RECOMMENDED WATER QUALITY CRITERIA FOR PFAS TO PROTECT AQUATIC LIFE

- In April EPA proposed the first Clean Water Act aquatic life criteria for perfluorooctanoic acid (PFOA) and perfluorooctane sulfonic acid (PFOS)—two of the most well-studied chemicals in this group.
- The criteria are intended to protect aquatic life in the United States from short-term and long-term toxic effects of PFOA and PFOS.
- Comment period closed in July and EPA will issue final PFOA and PFOS recommended criteria, considering public comments and any new toxicity data.
- States and Tribes may use EPA-recommended water quality criteria to develop water quality standards that protect and restore waters, issue permits to address PFAS discharges, and assess the impact of PFAS pollution on local communities and the environment.

CWA ANALYTICAL METHODS

- EPA's Draft Method 1633
  - A method to test for ***40 PFAS compounds*** in wastewater, surface water, groundwater, soil, biosolids, sediment, landfill leachate, and fish tissue.
  - Third revision of Draft Method 1633 (posted on the EPA website in December 2022) contains quality control criteria generated from the multi-laboratory validation study for wastewater.
  - This draft method can be used in various applications, including National Pollutant Discharge Elimination System (NPDES) permits.
  - The method will support NPDES implementation by providing a consistent PFAS method that has been tested in a wide variety of wastewaters and contains all the required quality control elements in CWA method.
  - While the method is not nationally required for CWA compliance monitoring until EPA has promulgated it through rulemaking, ***it is recommended now for use in individual permits.***
- EPA published Draft Method 1621 for Adsorbable Organic Fluorine (AOF)
  - A single-laboratory validated method to screen for organofluorines in wastewaters and surface waters by Combustion Ion Chromatography (CIC), EPA is currently multi-laboratory validating the method.
- Frequently Asked Questions about PFAS methods for NPDES Permits

BIPARTISAN INFRASTRUCTURE LAW AND PFAS

The Bipartisan Infrastructure Law makes transformational investments in America's water infrastructure. It provides $10 billion to invest in communities impacted by PFAS and other emerging contaminants, including:

$4 billion	Drinking Water State Revolving Fund
$1 billion	Clean Water State Revolving Fund
$5 billion	Small or Disadvantaged Communities Drinking-Water Grants

PFAS Strategic Roadmap: EPA's Commitments to Action 2021–2024

PFAS ROADMAP AND NPDES PERMITTING

LEVERAGE NPDES PERMITS TO REDUCE PFAS DISCHARGES

- December 2022 – EPA issued *Addressing PFAS Discharges in NPDES Permits and Through the Pretreatment Program and Monitoring Programs*
- This memo integrates previous policies into a holistic NPDES response for all NPDES permitting authorities, replacing earlier versions that were targeted at federally-issued permits only
- Describes steps permit writers and pretreatment authorities can implement under existing authorities, in the absence of final criteria/ELGs/methods
- Includes recommendations for NPDES permitting authorities as well as pretreatment program recommendations

RECOMMENDED PERMIT CONDITIONS FOR DIRECT INDUSTRIAL DISCHARGERS

Establish universe

- 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

Gather the data

- Monitoring permit conditions for facilities identified
- Use method 1633 in conjunction with 1622 (AOF) where appropriate
- Monitor for 40 parameters detectable by method
- Frequency recommendation: quarterly
- Collect data to establish
  - What PFAS are present?
  - How much?
  - where is it coming from?
  - Are there hotspots/EJ concerns? Drinking water intakes?

Implement solutions

- Use data gathered to develop plan to address PFAS discharges
- Permit conditions can include:
  - BMPs
  - Facility-level plans and reports
  - Water Quality-Based Effluent Limits (when state has applicable water quality standards)
  - Technology-based Effluent Limits (established by BPJ)
  - Proactive and transparent public notification process

RECOMMENDATIONS FOR PUBLICLY OWNED TREATMENT WORKS

Establish universe upstream & downstream

- Conduct IU inventory of PFAS industries, including non-SIUs
- Collaborate with drinking water to determine downstream intakes
- Consider sludge disposal goals

Develop sampling plan

- Use method 1633 in conjunction with 1621
- Include IUs identified in PFAS inventory
- Select collection system monitoring locations to differentiate industrial vs. domestic influent contributions where possible
- Frequency recommendation: quaterly

Implement solutions

- Incorporate monitoring requirements into IU control mechanisms
- Incorporate local limits into IU control mechanisms
- Local limits can be BMPs
- Ensure IUs are in ICIS and submitting data electronically
- Notify affected public water suppliers

Industry NAICS codes identified in proposed rulemaking *Designation of Perfluorooctanoic Acid (PFOA) and Perfluorooctanesulfonic Acid (PFOS) as CERCLA Hazardous Substances*

488119	Aviation operations
314110	Carpet manufacturers
811192	Car washes
325	Chemical manufacturing
332813	Chrome electroplating, anodizing, and etching services
325510	Coatings, paints, and varnish manufacturers
325998	Firefighting foam manufacturers
562212	Landfills
339112	Medical Devices
922160	Municipal fire departments and firefighting training centers, including Federal agencies that use, trained with, and tested firefighting foams.
322121 and 322130	Paper mills
325320	Pesticides and Insecticides
324	Petroleum and coal product manufacturing
324110 and 424710	Petroleum refineries and terminals
352992	Photographic film manufacturers
325211	Polymer manufacturers
323111 and 325910	Printing facilities where inks are used in photolithography
313210, 313220, 313230, 31324, 313320	Textile mills (textiles and upholstery)
562	Waste management and remediation services
221320	Wastewater treatment plants

WHAT ANALYTICAL METHOD TO USE?

- Recommend using draft method 1633 in conjunction with 1621
- Currently, there are no approved part 136 method for analyzing PFAS, which means the procedures in the NPDES and Pretreatment regulations for determining a suitable method apply
- 1633 is multi-lab validated for wastewater and EPA encourages its use in NPDES permitting over in-house laboratory methods
- FAQ on PFAS methods and NPDES permits: https://www.epa.gov/cwa-methods/frequent-questions-about-pfas-methods-npdes-permits

BEST MANAGEMENT PRACTICES: EXAMPLES

- Product elimination and substitution
- PFAS-containing AFFF emergency use only
- Cleaning and decontamination
- Replacement of equipment
- Good housekeeping and spill prevention practices

QUESTIONS?

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