Chessboard of Clean Water Approaches

September 27, 2022

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Office of Wastewater Management

Topics

PFAS Roadmap –

https://www.epa.gov/pfas

Office of Water Activities Addressing PFAS

Clean Water [Wastewater] Activities Addressing PFAS –

Overview of Source Control & Pretreatment Programs

PFAS Strategic Roadmap

https://www.epa.gov/system/files/documents/2021-10/pfas-roadmap_final-508.pdf

1. **Research** –

Invest in research, development, and innovation to increase understanding of PFAS exposures and toxicities, human health and ecological effects, and effective interventions that incorporate the best science

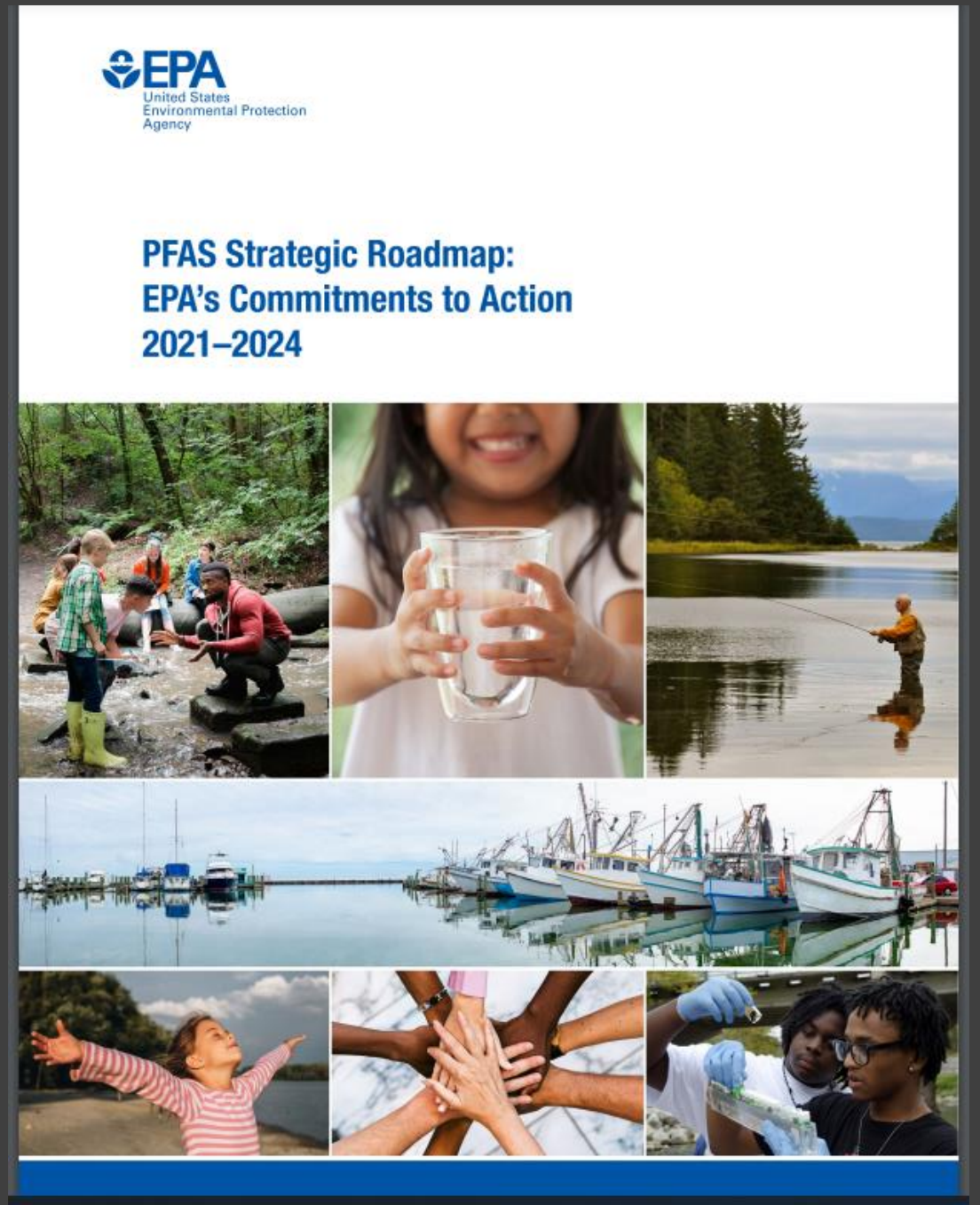
2. **Restrict** –

NPDES and Pretreatment Programs

Pursue a comprehensive approach to proactively prevent PFAS from entering air, land, and water at levels that can adversely impact human health and the environment.

3. **Remediate** –

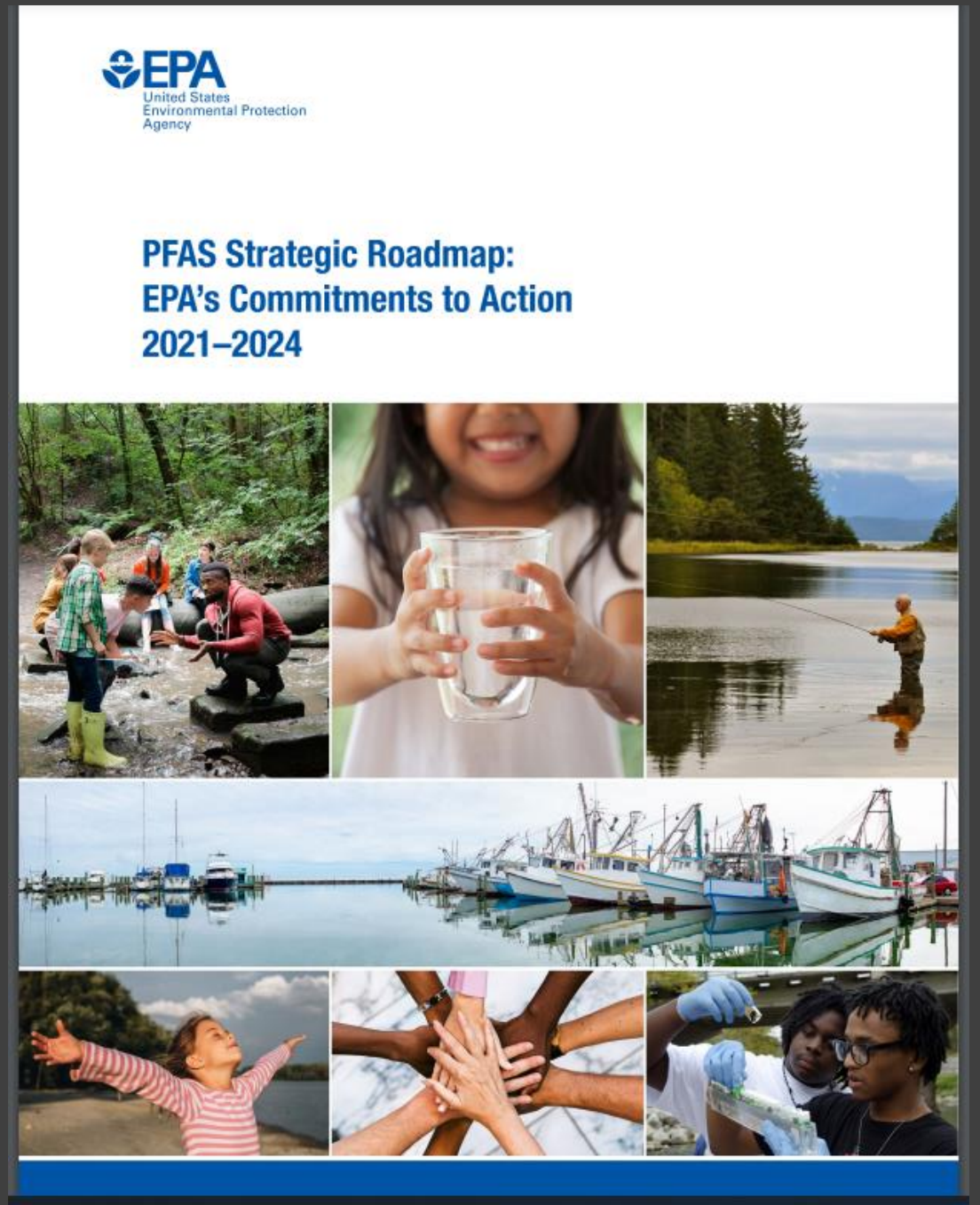
Broaden and accelerate cleanup of PFAS contamination to protect human health and ecological systems



PFAS Strategic Roadmap

Key Actions Organized by EPA Offices -

- **Office of Chemical Safety and Pollution Prevention**
  - TSCA Testing Strategy
  - Toxics Release Inventory
- **Office of Water**
  - Drinking Water
    - UCMR 5
    - NPDWRs, Toxicity assessment, – Health Advisories
  - Office of Science & Technology
    - Analytical methods,
    - Ambient water, fish tissue, biosolids criteria
    - Effluent Limitations Guidelines & Pretreatment Standards
  - Office of Wastewater Management – NPDES & Pretreatment Program
- **Office of Land and Emergency Management**
  - CERCLA Hazardous substance
  - Update guidance on destruction & disposal per 2020 NDAA
- **Office of Air and Radiation – technical foundation**
- **Office of Research and Development** – develop and validate methods, human health and environmental risk assessments, evaluated and develop technologies to reduce in the environment
- **Cross-Program**
  - Engage with affected communities
  - Use enforcement tools to identify and address releases
  - Accelerate public health protection
  - Develop Stewardship Program
  - Educate public
  - Annual report on progress



Press Release, April 28, 2022: EPA Delivers on Three Water Commitments in the Agency's PFAS Strategic Roadmap

Introduced New Testing Method - *Screening Method for the Determination of Adsorbable Organic Fluorine (AOF) in Aqueous Matrices by Combustion Ion Chromatography (CIC)*

Issued Memorandum to focus permitting to reduce discharges of PFAS to our Waters

Proposed CWA Criteria for PFOA and PFOS to support Healthy Fish & Aquatic Ecosystems

- Acute Aquatic Criteria
- Chronic Aquatic Criteria
- Fish Tissue Aquatic Criteria

Memorandum: (Supersedes November 22, 2020 memo)

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

Applies specifically to:

- Industrial Permits (including stormwater permits) - monitoring
- POTW permits – monitoring influent, effluent, biosolids
- Pretreatment Programs where EPA is Control Authority –
  - update Industrial user Inventory

Monitoring – Quarterly - using Draft Method 1633 – LC-MS/MS – 40 PFAS Compounds

Best Management Practices

Focus on 10 Industrial Sectors

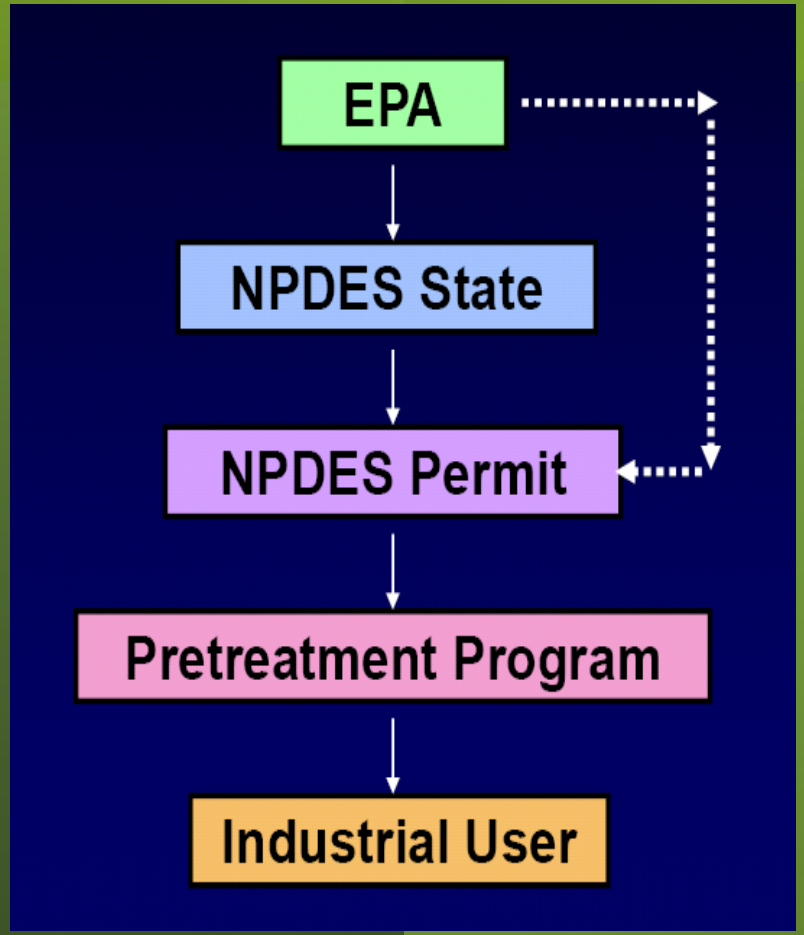
Clean Water Act – NPDES & Pretreatment Programs

33 **U.S.C.** §1251 et seq. (1972)

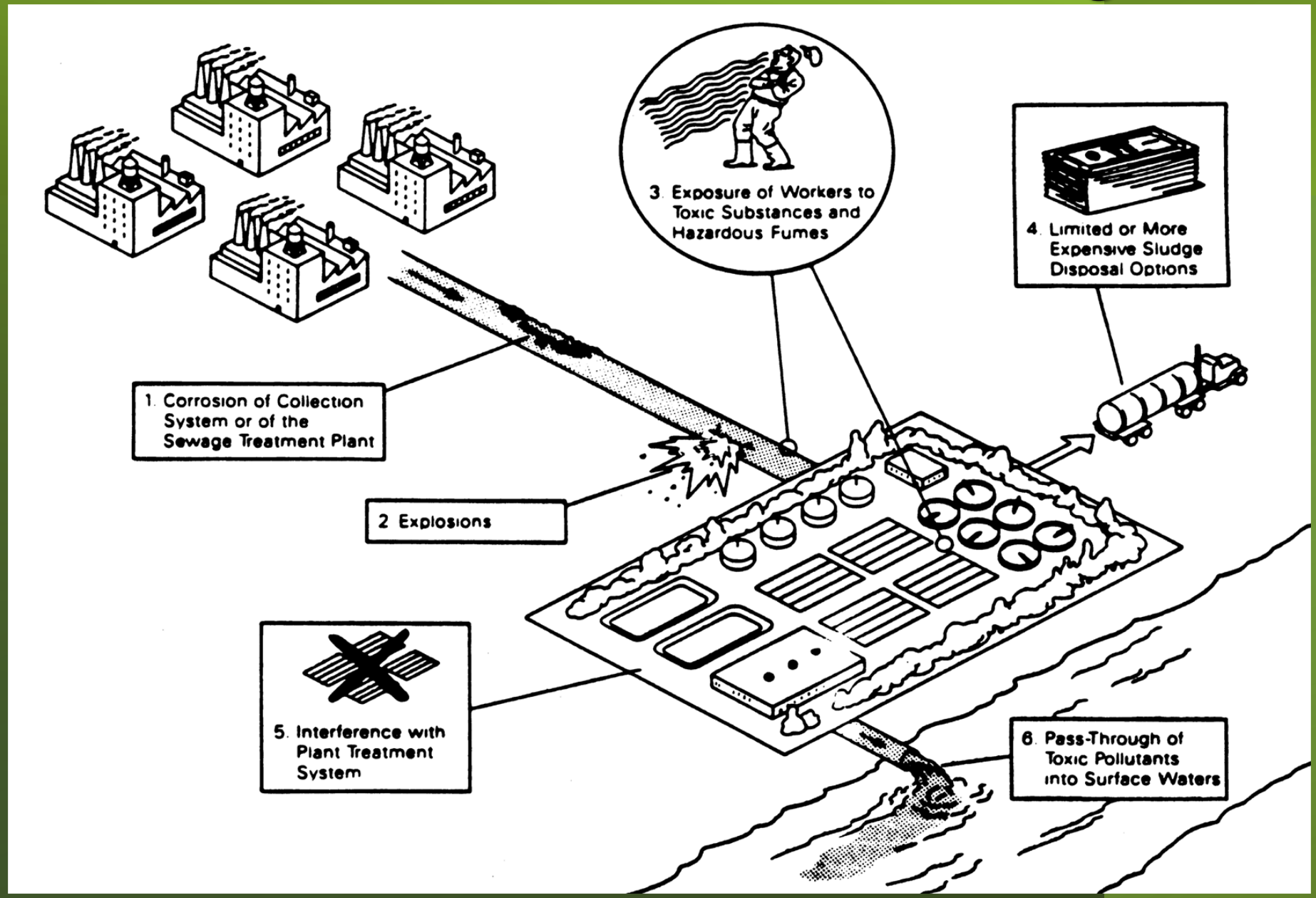
- Point sources must obtain an NPDES permit from EPA or their authorized State

  (40 CFR part 122)
- NPDES permits require development of Pretreatment Programs

  (40 CFR part 403)

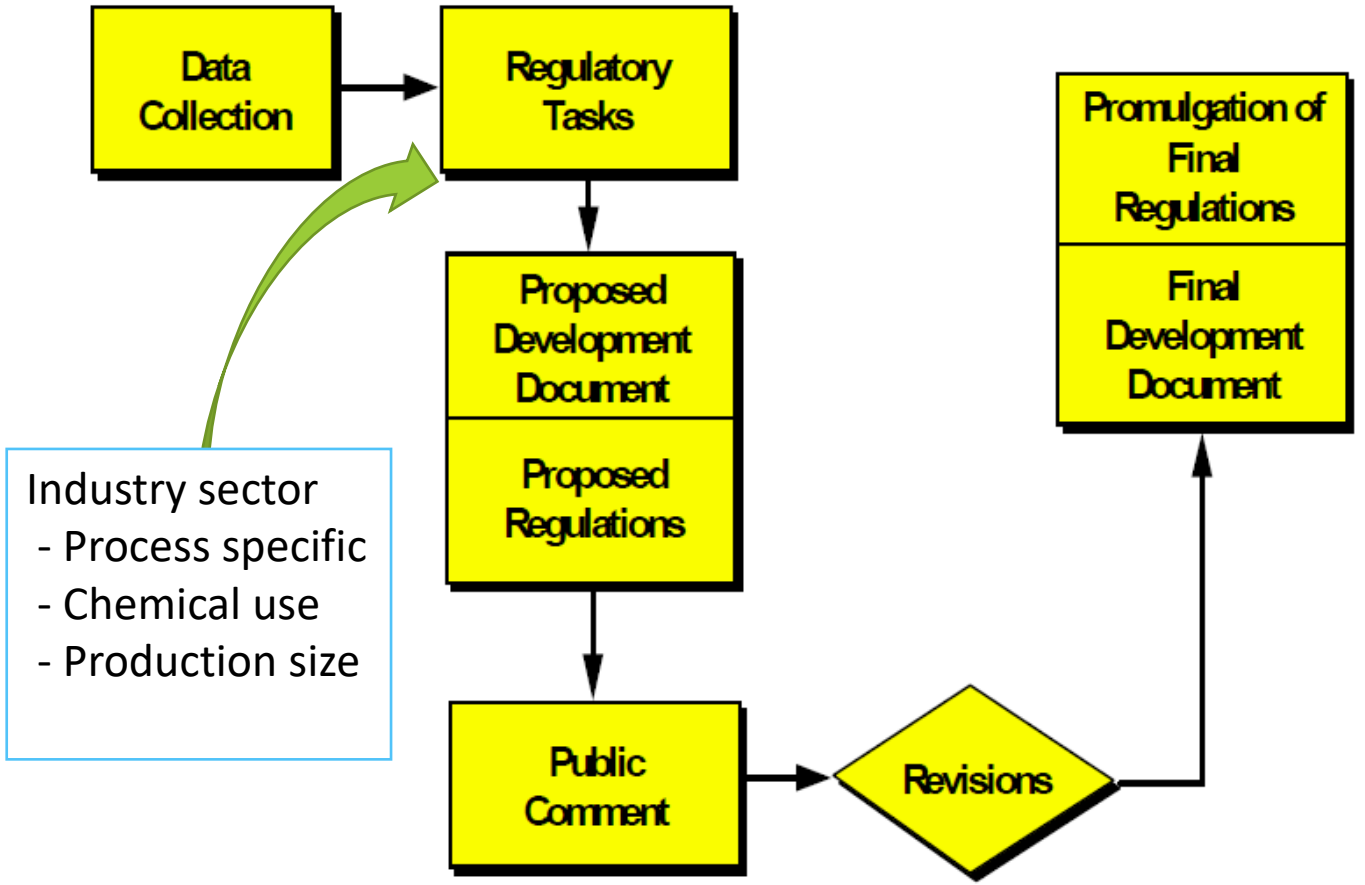


Clean Water Act – Pretreatment Program



Effluent Limitation Guidelines and Pretreatment Standards Development

- National Standards based on
- Best Available Technology
- Economically Achievable



Categorical Standards (premise on Secondary Treatment POTW)
At permit level, are superseded by WQBELs and Local Limits

May be numeric values, Best Management Practices, Prohibitions

April 28, 2022, NPDES Memo : Applicable Industries to Review

Multi-Industry Per-and Polyfluoroalkyl Substances (PFAS) Study 2021
Preliminary Report, September 2021 – EPA-821-R-21-004

https://www.epa.gov/system/files/documents/2021-09/multi-industry-pfas-study_preliminary-2021-report_508_2021.09.08.pdf

- **Organic chemicals, plastics & synthetic fibers (OCPSF) – 40 CFR 414**
- **Metal Finishing and Electroplating – 40 CFR 433 and 413**
- **Electric and electronic components – 40 CFR 469**
- **Landfills – 40 CFR 445***
- **Pulp, paper & paperboard – 40 CFR 430**
- **Leather tanning & finishing – 40 CFR 425**
- **Plastics molding & forming – 40 CFR 463***
- **Textile mills -- 40 CFR 410***
- **Paint formulating – 40 CFR 446***
- **Airports – [40 CFR 449]***
- **____[Additional facilities possible]_____**
- **____[Additional facilities possible]_____**

***No* Pretreatment Existing or New Source Standards**

(*No* PSES or PSNS for these sectors)

Pollution Prevention (P2) Act of 1990

P2, also known as *source reduction*:

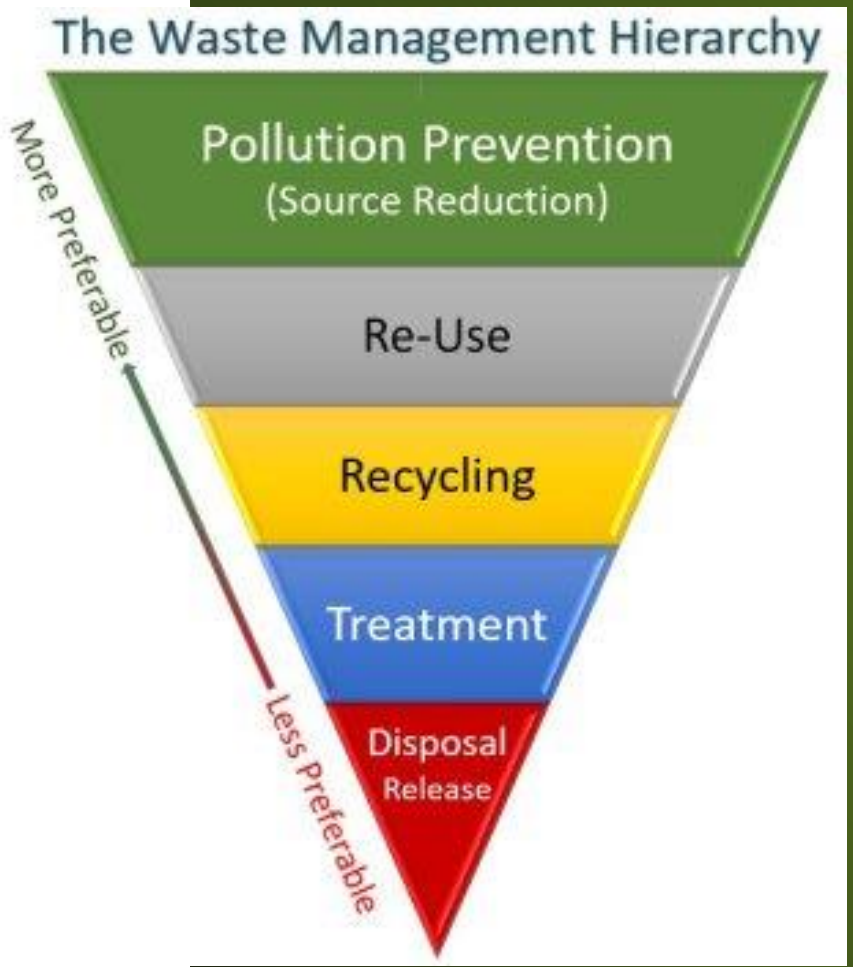
is any practice that reduces, eliminates, or prevents pollution

at its source prior to recycling, treatment or disposal.

- more cost effective to prevent pollution from being created at its source than to pay for control, treatment and disposal of waste

- When less pollution is created, there are fewer impacts to human health and the environment.

- can be applied to all potential and actual pollution-generating activities, including: households, businesses and communities



Source Reduction Assessments & Techniques

Training and Technical Assistance for Rural, Small and Tribal Municipalities and Wastewater Treatment Systems for Clean Water Act Prevention, Reduction, and Elimination of Pollution

https://www.epa.gov/small-and-rural-wastewater-systems/rural-small-and-tribal-wastewater-technical-assistance

RFP: EPA-OW-OWM-22-02

- Total $18,000,000 under multiple appropriations
- Eligible: public and private nonprofit organizations, subject to CWA 104(w), that are qualified and experienced in providing on-site training and technical assistance to rural, small, and tribal municipalities and/or small publicly owned treatment works and/or decentralized wastewater treatment systems.
- Eligible activities include training and technical assistance only. Infrastructure construction projects such as repairing water or sewer lines, adding new equipment, or upgrading, retrofitting or rehabilitating existing equipment are not eligible for funding under this announcement.

https://www.epa.gov/p2/grant-programs-pollution-prevention

RFP: EPA-HQ-OPPT-2022-001

- FY 2022 and FY 2023 Pollution Prevention Grant Program: $9.38 million/2-year period
- 50% match required
- Eligible: States, state entities, DC, U.S. VI, Puerto Rico, any territory or possession of the U.S., federally-recognized tribes and intertribal consortia
- Projects that provide technical assistance (e.g., information, training, tools) to businesses to help them develop and adopt source reduction practices

RFP: EPA-I-OCSPP-OPPT-FY2022-001

- Bipartisan Infrastructure Law : $13.9 million
- No match required
- Eligible: States, state entities, DC, U.S. VI, Puerto Rico, any territory or possession of the U.S., federally-recognized tribes and intertribal consortia
- Projects that provide technical assistance (e.g., information, training, tools) to businesses to help them develop and adopt source reduction practices

Links to Documents & Websites

PFAS Strategic Roadmap: https://www.epa.gov/system/files/documents/2021-10/pfas-roadmap_final-508.pdf

Bipartisan Infrastructure Law: https://www.epa.gov/infrastructure/water-infrastructure-investments

Memorandum: *""Addressing PFAS Discharges in EPA-Issued NPDES Permits and Expectations Where EPA is the Pretreatment Control Authority":* https://www.epa.gov/system/files/documents/2022-04/npdes_pfas-memo.pdf

Effluent Guidelines – Preliminary EG Plan 15, PFAS-Related Rulemakings, etc.: https://www.epa.gov/eg

Draft Analytical Method 1633: https://www.epa.gov/system/files/documents/2022-07/2nd%20Draft%20of%20Method%201633%20June%202022%20508-compliant.pdf

Draft Analytical Method AOF: https://www.epa.gov/cwa-methods/cwa-analytical-methods-and-polyfluorinated-alkyl-substances-pfas

Draft Aquatic Life Criteria – Perfluorooctanoic Acid (PFOA) and Perfluorooctane Sulfonate (PFOS): https://www.govinfo.gov/content/pkg/FR-2022-05-03/pdf/2022-09441.pdf

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