



The National Pretreatment Program: The Local Environmental Nexus

Updates on Federal Pretreatment Issues

EPA/RVIPA 35th Annual Pretreatment Workshop - August 7, 2019

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Federal Pretreatment Issues and Updates -- Review



40 CFR 403.2

Objectives of general pretreatment regulations:

- Prevent introduction of pollutants into POTWs which will interfere with POTW operation, including interference with its sludge use or disposal;
- Prevent introduction of pollutants into POTWs which will Pass through the POTW
- Improve opportunities to recycle, reclaim [reuse] wastewater and sludge

40 CFR 403.5 ***National Pretreatment Standards:***

- Prevent Pass through and interference (including NPDES permit conditions, sludge, solid waste, RCRA, Clean Air Act, TSCA, MPRSA regulations)
- Infrastructure protection
- Worker health & safety

Background

Parallel Media

- Wastewater
- Biosolids/sludge
- Odor control/emissions

Unparallel Statutes

- ▶ Clean Water Act
 - Secondary Treatment and Effluent Guidelines
- ▶ Resource Conservation & Recovery Act
- ▶ Clean Air Act
 - POTW NESHAP and RTR

- Most of us familiar with CWA, Pretreatment, and effluent guidelines
- Fewer of us are well versed in the regulations of the sister media in the water cycle: Air quality and air regulations, solids quality and disposal.

Federal Pretreatment Issues and Updates -- Overview



- Amendments to Clean Water Act
- Rulemakings & Studies
- Initiatives
- Pretreatment Training & Technical Assistance

Federal Pretreatment Issues and Updates -- Overview



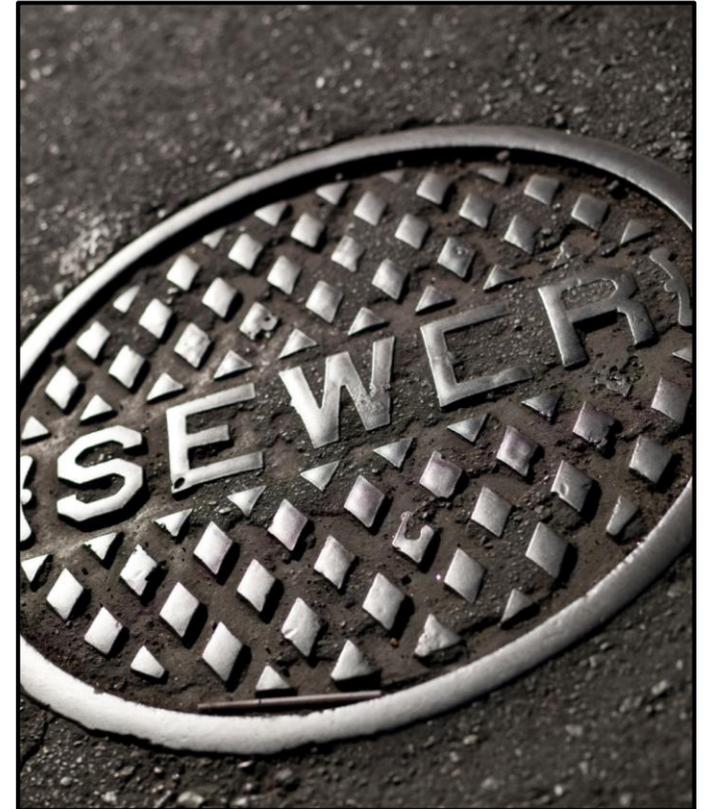
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Water Resources Reform & Development Act of 2014

Water Infrastructure Finance and Innovation Act (WIFIA)

Mission: Accelerate investment in our nation's water and wastewater infrastructure by providing long-term, low-cost supplemental credit assistance under customized terms to creditworthy water and wastewater projects of national and regional significance.

- **12 projects in FY 2017:** Wastewater collection and treatment, drinking water distribution and treatment, stormwater management, and water recycling projects.
- **39 projects in FY 2018:** Wastewater collection and treatment, drinking water distribution and treatment, stormwater management, desalination, and water recycling projects.
- **9 projects in FY 2019, so far . . .**



<https://www.epa.gov/wifia>

Water Infrastructure Improvement Act

Public Law No: 115-436 (01/14/2019)

- Amends the Clean Water Act to allow municipalities to develop a plan that integrates wastewater and stormwater management
- NPDES Permit may incorporate the integrated plan, including requirements related to CSOs, SSCS, TMDLs, green infrastructure, and projects to reclaim, recycle, or reuse water
- Establishes Office of the Municipal Ombudsman in EPA, to provide:
 - Technical assistance to municipalities seeking to comply with the CWA
 - Information to EPA to ensure policies are implemented
- Affirms that EPA must promote the use of Green Infrastructure



Water Reuse Action Plan

- 2/27/2019: Press release announces that EPA will facilitate the development of a [National Water Reuse Action Plan](#) to better integrate federal policy and leverage the expertise of both industry and government to ensure the effective use of the Nation's water resources:
 - *Foster water reuse as an important component of integrated water resources management*
- Through 7/1/2019: [Development of National Water Reuse Action Plan](#)
 - [Receiving Public Input via Docket Number: EPA-HQ-OW-2019-0174](#)
- 9/8-11/2019: [Draft National Water Reuse Action Plan](#)
 - San Diego, California, [34th Annual WaterReuse Symposium](#)
 - “Collaborate to Innovate”



Water Security Grand Challenge

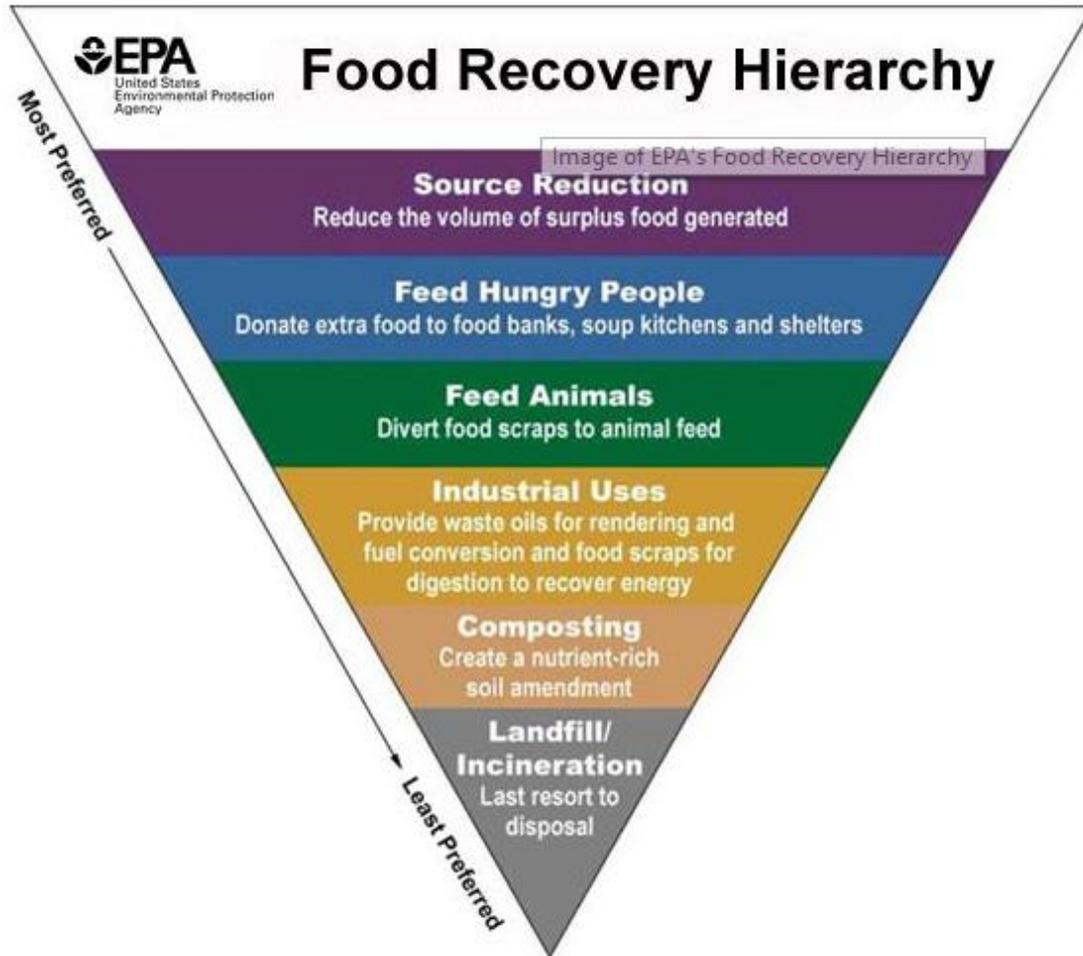
U.S. Department of Energy, Office of Energy Efficiency & Renewable Energy

To advance transformational technology and innovation to meet the global need for safe, secure, and affordable water.

Goals for the United States to reach by 2030:

- Launch desalination technologies that deliver cost-competitive clean water
- Transform the energy sector's produced water from a waste to a resource
- Achieve near-zero water impact for new thermoelectric power plants, and significantly lower freshwater use intensity within the existing fleet
- **Double resource recovery from municipal wastewater**
- Develop small, modular energy-water systems for urban, rural, tribal, national security, and disaster response settings.

Sustainable Management of Food



- 2015: in the U.S., more food reached landfills and combustion facilities than any other single material in our everyday trash:
 - 22 % landfilled
 - 22 % combusted with energy recovery.
- UN Sustainable Development Goal: reduce food loss and waste by half by 2030.
- [Anaerobic Digestion Facilities Processing Food Waste in the US \(PDF\)](#) (43 pp, 6 MB, September 2018, EPA/903/S-18/001)

Recent and Upcoming Rulemakings

- NPDES Updates Rule
- Effluent Guidelines and Analytical Methods
 - Steam Electric
 - Petroleum Refining
 - Electronic & Electrical Components
 - Centralized Waste Treatment
 - Oil & Gas
 - Dental
 - Nutrients
- Management of Hazardous Waste Pharmaceuticals
- PFAS
- CROMERR vs. Electronic Reporting

NPDES Applications and Program Updates Rule

Focus: Eliminate inconsistencies between [regulations](#) and [application forms](#)

Final Rule Published: Federal Register on February 12, 2019

Effective: June 12, 2019

Changes to: 40 CFR 122, 124, 125

- 40 CFR 122.21 – NPDES Application form contents
- 40 CFR 122.44(k) – Footnote added to supply BMP references
- 40 CFR 124.10 – website use for public notice of NPDES permit actions



<https://www.federalregister.gov/documents/2019/02/12/2019-01339/national-pollutant-discharge-elimination-system-npdes-applications-and-program-updates>

NPDES Permit Application Industrial User Information

- 40 CFR 122.21(j)(6)
- (i) Number of significant industrial users (SIUs) and non-significant categorical industrial users (NSCIUs), as defined at 40 CFR 403.3(v), including SIUs and NSCIUs that truck or haul waste, discharging to the POTW; and

FACILITY NAME AND PERMIT NUMBER: _____

Form Approved 1/14/03
OMB Number 2040-0080

SUPPLEMENTAL APPLICATION INFORMATION

PART F. INDUSTRIAL USER DISCHARGES AND RCRA/CERCLA WASTES

All treatment works receiving discharges from significant industrial users or which receive RCRA, CERCLA, or other remedial wastes must complete Part F.

GENERAL INFORMATION:

F.1. Pretreatment Program. Does the treatment works have, or is it subject to, an approved pretreatment program?
 Yes No

F.2. Number of Significant Industrial Users (SIUs) and Categorical Industrial Users (CIUs). Provide the number of each of the following types of industrial users that discharge to the treatment works.

a. Number of non-categorical SIUs. _____

b. Number of CIUs. _____

SIGNIFICANT INDUSTRIAL USER INFORMATION:

Supply the following information for each SIU. If more than one SIU discharges to the treatment works, copy questions F.3 through F.8 and provide the information requested for each SIU.

F.3. Significant Industrial User Information. Provide the name and address of each SIU discharging to the treatment works. Submit additional pages as necessary.

Name: _____

Mailing Address: _____

F.4. Industrial Processes. Describe all of the industrial processes that affect or contribute to the SIU's discharge.

F.5. Principal Product(s) and Raw Material(s). Describe all of the principal processes and raw materials that affect or contribute to the SIU's discharge.

Principal product(s): _____

Raw material(s): _____

F.6. Flow Rate.

a. Process wastewater flow rate. Indicate the average daily volume of process wastewater discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.
_____ gpd (continuous or intermittent)

b. Non-process wastewater flow rate. Indicate the average daily volume of non-process wastewater flow discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.
_____ gpd (continuous or intermittent)

F.7. Pretreatment Standards. Indicate whether the SIU is subject to the following:

a. Local limits Yes No

b. Categorical pretreatment standards Yes No

If subject to categorical pretreatment standards, which category and subcategory?



Peak Flows Management Rulemaking

Goal: To ensure continuous effective operation of treatment facilities during wet weather events while at the same time protecting the water quality and public health of communities served by such POTWs.

EPA announced a new rulemaking in April 2018

Public Input Period: August 31, 2018 to October 31, 2018

<https://www.federalregister.gov/documents/2018/08/31/2018-19016/public-listening-session-stakeholder-input-on-peak-flows-management>

<https://www.epa.gov/npdes/peak-flows-sewage-treatment-plants>



Combined Sewer Overflow Control Policy

9 Minimum Controls

1. Proper operation and regular maintenance programs for the sewer system and the CSOs;
 2. Maximum use of the collection system for storage;
 3. Review and modification of pretreatment requirements to assure CSO impacts are minimized;
 4. Maximization of flow to the POTW for treatment;
 5. Prohibition of CSOs during dry weather;
 6. Control of solid and floatable materials in CSOs;
 7. Pollution prevention:
 8. Public notification to ensure that the public receives adequate notification of CSO occurrences and CSO impacts and
 9. Monitoring to effectively characterize CSO impacts and the efficacy of CSO Controls
- April 19, 1994: 59 FR 18688-98;
 - <https://www.epa.gov/sites/production/files/2015-10/documents/owm0111.pdf>



Minimum Elements of the CSO Control Plan

- Characterization, Monitoring, and Modeling of the Combined Sewer System
- Public Participation
- Consideration of Sensitive Areas
- Evaluation of Alternatives
- Cost/Performance Considerations
- Operational Plan
- Maximizing Treatment at the Existing POTW Treatment Plant
- Implementation Schedule
- Post-Construction Compliance Monitoring Program

Pretreatment and the SSO Program

Pretreatment Specific Prohibition: 40 CFR 403.5(b)(3):

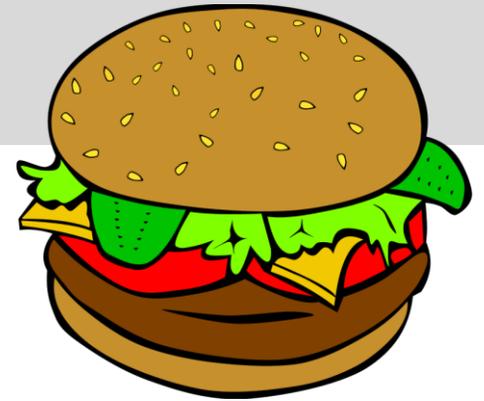
- “solid or viscous pollutants in amounts which will cause obstruction”

EPA’s Report to Congress (2004) identified that:

“...grease from restaurants, homes, and industrial sources are the most common cause (47%) of reported blockages. Grease is problematic because it solidifies, reduces conveyance capacity, and blocks flow.”

The annual production of collected grease trap waste and uncollected grease entering sewage treatment plants can be significant and ranges from 800 to 17,000 pounds/year per restaurant.

Ref: Report to Congress: Impacts and Controls of CSOs and SSOs, EPA-833-R-04 001, August 2004,
http://cfpub.epa.gov/npdes/cso/cpolicy_report2004.cfm



SSO-FOG control solutions . . .

Where might these fit into the Utility Wheel?

[Food Waste to Energy: How Six Water Resource Recovery Facilities are Boosting Biogas Production and the Bottom Line \(PDF\)](#) (51 pp, 4 MB, September 2014, EPA 600/R-14/240)

[3 Digester Projects at Water Resource Recovery Facilities \(WRRFs\) \(2016\)](#)

Water Resource Recovery Facilities (WRRFs) with anaerobic digesters have been harnessing biogas for heat and power since at least the 1920's. A few are approaching “energy neutrality” and some are becoming “energy positive” through a combination of energy efficiency measures and the addition of outside organic wastes.

- Energy Efficiency
- Energy Generation & Recovery
- Beneficial Biosolids Reuse
- Community Partnership & Engagement



What about an SSO that occurs “down stream” from a different type of industry?

- What will you do with the cleanup residuals?
 - Do you put them back into the overflow point?
 - Do you put them in a truck to haul to the POTW or the landfill?
 - Does it matter?

[Stay tuned for Part II of the “Nexus”: RCRA]



Effluent Guidelines and Standards Planning

- Final 2016 ELG Plan published on May 2, 2018
 - See: <https://www.epa.gov/eg/effluent-guidelines-plan>
- The Plan discusses:
 - New Rulemaking to potentially revise certain requirements in the 2015 Steam Electric ELGs
 - Results of 3 preliminary category reviews
 - 3 Continuing and New Detailed Studies
 - Petroleum Refining
 - Electrical and Electronic Components (E&EC)
 - CWT/Holistic Oil and Gas Study
- Other updates and announcements of new initiatives



New Rulemaking: Steam Electric (40 CFR part 423)

- EPA promulgated revisions to the Steam Electric ELGs in November, 2015; compliance with new, more stringent PSES required by November, 2018
- EPA received petitions for reconsideration that raised wide-ranging and sweeping objections to the rule
- In August, 2017, the Administrator announced his decision to conduct a rulemaking to potentially revise the new, more stringent BAT effluent limitations and pretreatment standards for existing sources that apply to bottom ash transport water and flue gas desulfurization (FGD) wastewater
- In September, 2017, EPA finalized a rule postponing the compliance dates for the new PSES for bottom ash transport water and FGD wastewater in the 2015 Rule to November 1, 2020
- EPA projects a proposed rule in Calendar year 2019



3 Preliminary Category Reviews Completed

Battery Manufacturing (40 CFR part 461)

- We did not identify any uncontrolled pollutants that represent a category-wide issue
- The industry is trending to zero discharge
- Few discharges are not subject to current ELGs
- We are not continuing to review this category



Miscellaneous Food and Beverage Manufacturing

- We conducted a preliminary review of the miscellaneous food and beverage sectors not currently regulated by existing ELGs, e.g. distilleries, breweries, soft drink manufacturers
- Majority of pollutants are nutrients and conventional pollutants, e.g. BOD, TSS, and O&G
- Distilleries and soft drink manufacturers account for one third of pollutant discharges – most of which is to POTWs
- Further review is not warranted at this time

3 Preliminary Category Reviews (Continued)

40 CFR part 433 (Metal Finishing)

- Our preliminary review indicates that:
 - Processes that generate wastewater in metal finishing operations have not changed substantially since EPA first promulgated the Metal Finishing ELGs
 - Most metal finishing facilities continue to use conventional chemical precipitation and clarification wastewater treatment technologies (the technology basis for the existing ELGs)
 - EPA does not have, nor have stakeholders provided, any data to demonstrate that pollutants in metal finishing discharges are leading to environmental problems or causing issues for POTWs.
- We are not continuing the review of this category
- We are aware that because these ELGs are specific to "operations" there continue to be questions regarding the applicability of the rule and we will continue to respond to those questions and engage with stakeholders



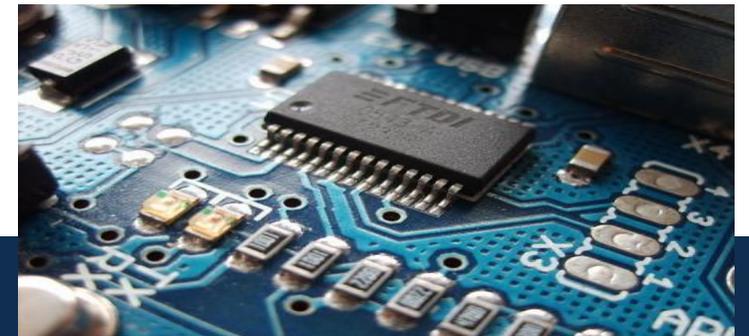
Study – Petroleum Refining (40 CFR part 419)

- Detailed study of this category is ongoing
- Interested in effects of wet air pollution control and changing crude slates on wastewater characteristics
- Completed a questionnaire effort: responses from 22 refineries, visited 9
- Working with industry representatives to develop a limited sampling campaign to better understand presence/ absence of pollutants in refinery discharges
- There are new technologies that treat nitrate, selenium, mercury and some toxic organics



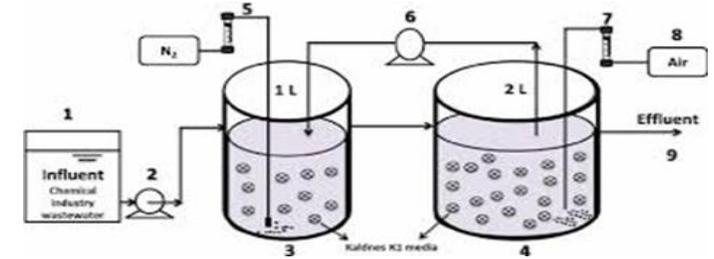
Study- Electrical and Electronic Components (40 CFR part 469)

- Preliminary category review of this industry completed, initiating a detailed study for this category
- Information collected to date indicates that there are changes in E&EC processes since promulgation of the ELGs, particularly for semiconductor and electronic crystals manufacturing
- Preliminary information indicates the industry may now use different toxic and bioaccumulative compounds than covered by current ELG
- NACWA members expressed concerns about ammonia, sulfate, fluoride, copper and other metals, phosphates, pH
- Data need: wastewater characterization resulting from industry changes and associated treatment technology information, and population of facilities



Study – Centralized Waste Treatment (40 CFR part 437)

- Completed a report that summarizes information collected to date specific to facilities managing oil and gas extraction wastewater
 - See: https://www.epa.gov/sites/production/files/2018-05/documents/cwt-study_may-2018.pdf
- Conducted site visits to a range of facilities (zero discharge, direct discharge, indirect discharge)
- Reviewed permit limits and discharge data
- Conducted sampling at two facilities
- Reviewed available treatment technology information
- Found ~10 existing facilities discharging; many do not include adequate technology to manage pollutants found in the wastewater
- We will continue to study these facilities as part of the Holistic Oil and Gas Study



Study – New Holistic Oil and Gas Study

- We are conducting a holistic study of the management of produced water
- Not specific to an ELG
- Historical approach of managing produced water via underground injection may be changing
 - emerging constraints on underground injection of oil and gas wastewater
 - new thinking on reuse, recycling, and renewable water, particularly in areas of water scarcity
- The focus of the Agency's study will be to engage with stakeholders to consider available approaches to manage wastewater from both conventional and unconventional oil and gas extraction at onshore facilities.
- Review to include assessment of technologies for facilities that treat and discharge oil and gas extraction wastewater
- Following this study, EPA will determine if future Agency actions are appropriate to further address oil and gas extraction wastewater



Dental Pretreatment Standards – 40 CFR part 441

- Rule overview: Effective July 14, 2017 [New Source date]
 - Dental offices that place or remove amalgam must operate and maintain an amalgam separator (or equivalent device) and must not discharge scrap amalgam or use certain kinds of line cleaners
 - One-time compliance report and recordkeeping requirements
 - Existing source required compliance date: October 12, 2020.
 - The rule is self-implementing and minimizes the administrative burden to federal, state, and local regulatory authorities responsible for oversight of the new requirements
 - Requirements for new and existing sources are the same except for timing of compliance
- The American Dental Association (ADA) is working with EPA to help publicize this rule and to help dentists understand any applicable requirements
- EPA developed 2 FAQs to help Dentists and Control Authorities
 - [Frequently Asked Questions for Control Authorities on the Dental Rule \(40 CFR Part 441\)](#)
 - [Frequently Asked Questions on the Dental Office Category Rule](#)



Effluent Guidelines. . .

Where do these fit into the Pretreatment Program?

- Categorical Pretreatment Standards
- Pollutant controls for specific sectors and technology specific to reducing those sectors' pollutants
- Development Document provides reference information

Where might these fit into the Pretreatment Program and the Utility Wheel?

- Water Reuse – reduced pollutants in final effluent
- Beneficial Biosolids Reuse
- More?



“Nexus” Part II:
Pretreatment Program

& RCRA program

& Air Program

& EPCRA

& . . .

RCRA: Domestic Sewage Exclusion (DSE)

40 CFR 261.4(i)

- **40 CFR 261.4 Exclusions.**
- **(a) *Materials which are not solid wastes.*** The following materials are not solid wastes for the purpose of this part:
 - **(1)**
 - **(i)** Domestic sewage; and
 - **(ii)** Any **mixture of domestic sewage and other wastes** that passes **through a sewer system to a publicly-owned treatment works for treatment.** “Domestic sewage” means untreated sanitary wastes that pass through a sewer system.

How does the Pretreatment Program implement the DSE?

Pretreatment Regulations

40 CFR 403.5(b)

Specific Prohibitions

- Fire or explosion hazard
- Corrosive damage (pH<5)
- Pollutants resulting in toxic gases, vapors, or fumes

40 CFR 403.5(a) General Prohibition

- Pass through or interference

40 CFR 403.5(c) Pretreatment Standards

RCRA Regulations

40 CFR 261, Subpart C

Definition of “Characteristic Hazardous Waste”

- Ignitability
- Corrosivity
- Reactivity
 - Explosive
 - Toxic gases, vapors, or fumes
- Toxicity characteristic [“TCLP”]

How does the Pretreatment Program implement the DSE?

40 CFR 403.5(b)(8)

- Prohibition of trucked or hauled waste except at designated discharge points by POTW

40 CFR 403.12(p) Notification of any discharge to the POTW that, if otherwise disposed, would be hazardous waste

- Fact Sheet: [Hazardous Waste Reporting Requirements for Industrial Users](#)

40 CFR 261, Subpart D: Lists of Hazardous Wastes

- Hazardous Waste from Non-specific sources
- Hazardous Waste from specific sources
- Discarded commercial chemical products, off-specification species, container residues, and spill residues

RCRA: Domestic Sewage Exclusion (DSE)

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Text above will change 08/21/2019 [84 FR 5816]



What about an SSO that occurs “down stream” from a different type of industry?

- What will you do with the cleanup residuals?
 - Do you put them back into the overflow point?
 - Do you put them in a truck to haul to the POTW or the landfill?
 - Does it matter?



Management Standards for Hazardous Waste Pharmaceuticals and Amendment to the P075 Listing for Nicotine, 84 FR 5816

- Federal Register: 02/22/2019
- Rule Effective Date: 08/21/2019
- Rulemaking affected the following CFR parts:
 - [40 CFR Part 261, 262, 264-266](#)
 - [40 CFR Part 268](#)
 - [40 CFR Part 270](#)
 - [40 CFR Part 273](#)
- <https://www.epa.gov/hwgenerators/final-rule-management-standards-hazardous-waste-pharmaceuticals-and-amendment-p075>



[Webinar archived on March 4, 2019](#)

Management Standards for Hazardous Waste Pharmaceuticals

40 CFR 261.4 Exclusions.

(a) *Materials which are not solid wastes.* The following materials are not solid wastes for the purpose of this part:

(1)(i) Domestic sewage; and

(ii) Any mixture of domestic sewage and other wastes that passes through a sewer system to a publicly-owned treatment works for treatment, **except as prohibited by §266.505 and Clean Water Act requirements at 40 CFR 403.5(b).** “Domestic sewage” means untreated sanitary wastes that pass through a sewer system.

40 CFR 266.505 Prohibition of sewerage **hazardous waste pharmaceuticals.**

All **healthcare facilities**—including very small quantity generators operating under § 262.14 in lieu of this subpart— and **reverse distributors** are prohibited from discharging **hazardous waste pharmaceuticals** to a sewer system that passes through to a publicly-owned treatment works. Healthcare facilities and reverse distributors remain subject to the prohibitions in 40 CFR 403.5(b)(1).

Red text above is effective 08/21/2019, 84 FR 5816

Management Standards for Hazardous Waste Pharmaceuticals (continued)

Definitions 40 CFR 266.500

- ***Hazardous waste pharmaceutical*** - refers you back to “solid waste, as defined in § 261.2, and exhibits one or more characteristics identified in part 261 subpart C or is listed in part 261 subpart D.”
- ***Healthcare facility*** means any person that is lawfully authorized to—
 - (1) Provide preventative, diagnostic, therapeutic, rehabilitative, maintenance or palliative care, and counseling, service, assessment or procedure with respect to the physical or mental condition, or functional status, of a human or animal or that affects the structure or function of the human or animal body; or
 - (2) Distribute, sell, or dispense pharmaceuticals, including over-the-counter pharmaceuticals, dietary supplements, homeopathic drugs, or prescription pharmaceuticals. . . . This definition does not include pharmaceutical manufacturers, reverse distributors, or reverse logistics centers.”
- ***Household waste pharmaceutical*** means a pharmaceutical that is a solid waste, as defined in § 261.2, but is excluded from being a hazardous waste under § 261.4(b)(1).
- ***Long-term care facility***
- ***Reverse distributor***

National Emission Standards for Hazardous Air Pollutants for POTWs

Background

Five Clean Air Act Regulation Subparts that may apply at POTWs:

- CAA 129:
 - 40 CFR part 60, subpart O – Standards of Performance for Sewage Treatment Plants
 - 40 CFR part 60, subpart LLLL – Standards of Performance for **New Sewage Sludge Incineration Units**
 - 40 CFR part 60, subpart MMMM – Standards of Performance for Existing Sewage Sludge Incineration Units
- CAA
 - 40 CFR part 61, subpart E – National Emission Standards for Mercury
 - **40 CFR part 63, subpart VVV – National Emission Standards for **Hazardous Air Pollutants: Publicly Owned Treatment Works****



Which POTWs are affected by the “MACT for POTWs”

40 CFR 60, Subpart VVV: revised 26 October 2017, 82 FR 49513

- **(1)** You own or operate a POTW that includes an “affected source”
- **(2)** The “affected source” is located at a Group 2 POTW which is a major source of HAP emissions, or at any Group 1 POTW regardless of whether or not it is a major source of HAP; and
- **(3)** Your POTW is required to develop and implement a pretreatment program or meets the general criteria for one
- (+ additional considerations: construction of new POTW, etc.)

<https://www.epa.gov/stationary-sources-air-pollution/publicly-owned-treatment-works-potw-national-emission-standards>



Why should a POTW care about Industry Air Regulations?

- NESHAP can be seen as analogous to ELGs in that it regulates pollutants received from industrial users
- Potential Pollutant Cross media transfer due to wet air pollution control
- OSHA considerations – specific prohibition on toxic vapors and fumes that might result in harm to worker safety



CAA MACT Prescribes Dry Air Pollution Control

Coil Coating (465)

Fertilizer Manufacturing (418)*

Ferroalloy Manufacturing (424)

Glass Manufacturing (426)

Inorganic Chemicals Manufacturing (415)

Iron & Steel Manufacturing (420)

Metal Finishing (433)

Metal Products and Machinery (438)

Mineral Mining and Processing (436)

Nonferrous Metals Manufacturing (421)

Ore Mining (440)

Organic Chemicals, Plastics, and
Synthetic Fibers (414)

Paving and Roofing Materials (443)

Phosphate Manufacturing (422)

Pulp, Paper & Paperboard (430)

Rubber Manufacturing (428)

Steam Generating (423)

Sewage treatment plants (133, 503)

Waste Combustors (444)

Industries printed in red only have direct (NPDES) discharge standards and no pretreatment standards.

*Includes some technology-based wastewater standards as zero/dry discharge

Source: 2012 Annual Effluent Guidelines Review Report, Table 6-47



CAA MACT Industries ~ Potential Wastewater Discharge

- 40 CFR 60 & 63 NESHAP Rules affect 3 industry / sectors not regulated by ELGs
 - Brick and Structural Clay Products Manufacturing
 - Perchloroethylene (PCE)-based and petroleum-based Dry Cleaning operations
 - Printing and Publishing
- 40 CFR 60 & 63 NESHAP Rules affect 2 types of multi-sector sources not generally regulated by ELGs
 - Industrial, commercial & institutional boilers
 - Industrial, commercial & institutional Steam generating units

CAA MACT Industries ~ Potential Wastewater Discharge

18 Sectors - **Wet** Air Pollution Control Equipment **Specified in Air Regulations**

***ELG predates Air Regulation ***

[2012 Annual Effluent Guidelines Review Report, [Table 6-46](#)]

- Steam Electric Power ELG (423)
 - Air Regulation - 1976, 1978, 2015
 - CWA ELGs 1982
- Petroleum Refineries (419)
 - Air Regulation– 1974, 2005, 2002, 2005
 - CWA ELG – 1982...
 - ELG program already selected for study in 2004, 2012
- Battery Manufacturing (461)
 - Air Regulation 1980, 2008
 - CWA ELG 1984
- Organic Chemical, Plastics, and Synthetic Fibers (414)
 - Air Regulation 1983, 1984, 2001, 2002, 2003, 2004, 2008
 - CWA ELG 1987
- Paving and Roofing Materials (443)
 - Air Regulation 1982
 - CWA ELG 1975
- Glass Manufacturers (426)
 - Air Regulation 1985
 - CWA ELG 1974
- Textiles (410)
 - Air Regulation 2006
 - CWA ELG 1982
- Waste Combusters (444)
 - Air Regulation 2000, 2003, 2011, 2013
 - CWA ELG 2000
- ▶ Inorganic Chemicals Manufacturing (415)
 - ▶ Air Regulation 2006, 2007, 2012
 - ▶ CWA ELG 1982
- ▶ Metal Finishing (433)
 - ▶ Air Regulation 1996
 - ▶ CWA ELG 1983
- ▶ Iron & Steel Manufacturing (420)
 - ▶ Air Regulation 2001, 2006
 - ▶ CWA ELG 1982, 1984, 2002
- ▶ Coil Coating (465)
 - ▶ Air Regulations 2005
 - ▶ CWA ELG 1983
- ▶ Pulp, Paper & Paperboard (430)
 - ▶ Air Regulations 2005
 - ▶ CWA ELG 1998
- ▶ Pesticides Chemicals
 - ▶ Air Regulations 2003
 - ▶ CWA ELG 1978
- ▶ Pharmaceuticals Manufacturing (439)
 - ▶ Air Regulations 2001
 - ▶ CWA ELG 1998
- ▶ Gum & Wood Chemicals (454)
 - ▶ Air Regulations 2007
 - ▶ CWA ELG 1976)
- ▶ Ore Mining(440)
 - ▶ Air Regulations 2006
 - ▶ CWA ELG 1982, study in 2011



POTW & Air Requirements...

Where do these fit into the Pretreatment Program?

- Included in definition of *Interference*
- Potential Some Categorical Pretreatment Standards
- Air Sector-based technology-based treatment requirements to reduce emissions may result in Cross-Media transfer of pollutants to wastewater

Where might these fit into the Pretreatment Program and the Utility Wheel?

- IU Pollution Prevention may facilitate Water Reuse
- Covered POTW treatment units (per POTW MACT) may be paired with Energy Generation & Recovery efforts
- Community Partnership & Engagement-improved air quality



Biosolids Program

- Office of Inspector General Report No. 19-P-0002, November 15, 2018
“EPA Unable to Assess the Impact of Hundreds of Unregulated Pollutants in Land-Applied Biosolids on Human Health and the Environment”
- Biennial Reviews for Sewage Sludge Standards: 2013 & 2015
<https://www.epa.gov/biosolids/biennial-reviews-sewage-sludge-standards>
- Electronic Reporting of Annual Reports, 40 CFR 127 - began Feb. 19, 2017



Pretreatment Link:

- Objective: improve opportunities to recycle and reclaim municipal and industrial wastewaters and sludges.
- Interference definition includes prevention of sewage sludge use or disposal.
- Local limits development delimiter.

Utility of the Future Link:

- Beneficial Biosolids Reuse
- Community Partnership & Engagement
- More?

NPDES Electronic Reporting Rule impact on Biosolids Data

40 CFR part 127 (22 October 2015; 80 FR 64064)

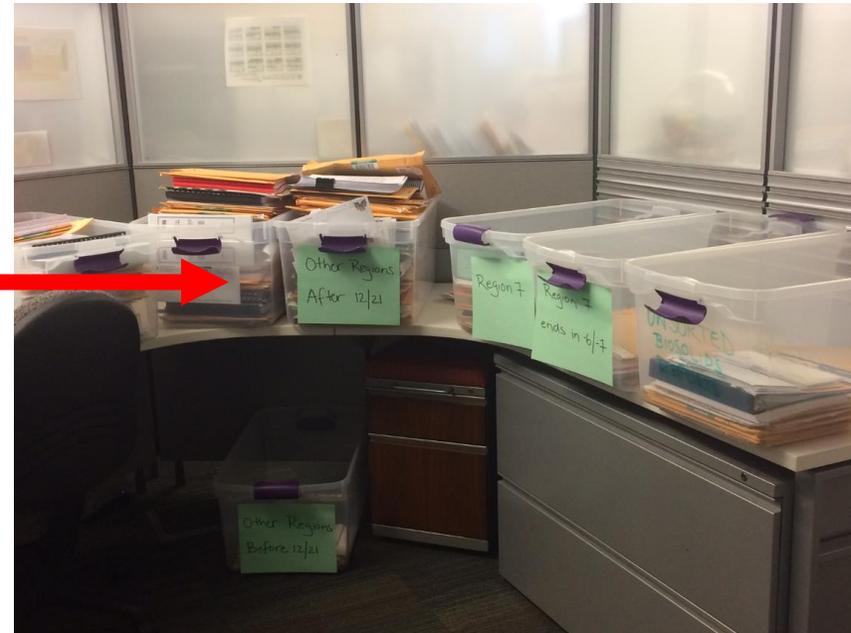
Federal Biosolids Annual Reports (EPA Biosolids Center of Excellence, Region 7)



2014

Before Electronic Reporting
(Approximately 2,400 paper submissions)

Results!



2017

1st Year of Electronic Reporting
(2,183 electronic submissions with
640 paper submissions).

CROMERR v. NPDES Electronic Reporting Rule



- **CROMERR = CROss Media Electronic Reporting [Receipt] Rule [CROMERR]**
 - 40 CFR Part 3
 - Requirements on the **Receiver** of the Data
 - https://www.epa.gov/sites/production/files/2018-05/documents/cromerr_potw_1.pdf
- **NPDES Electronic Reporting Rule**
 - 40 CFR Part 127
 - Requirements **to submit** Certain Data Elements and Certain reports
 - <https://www.epa.gov/compliance/npdes-ereporting>

NEW!

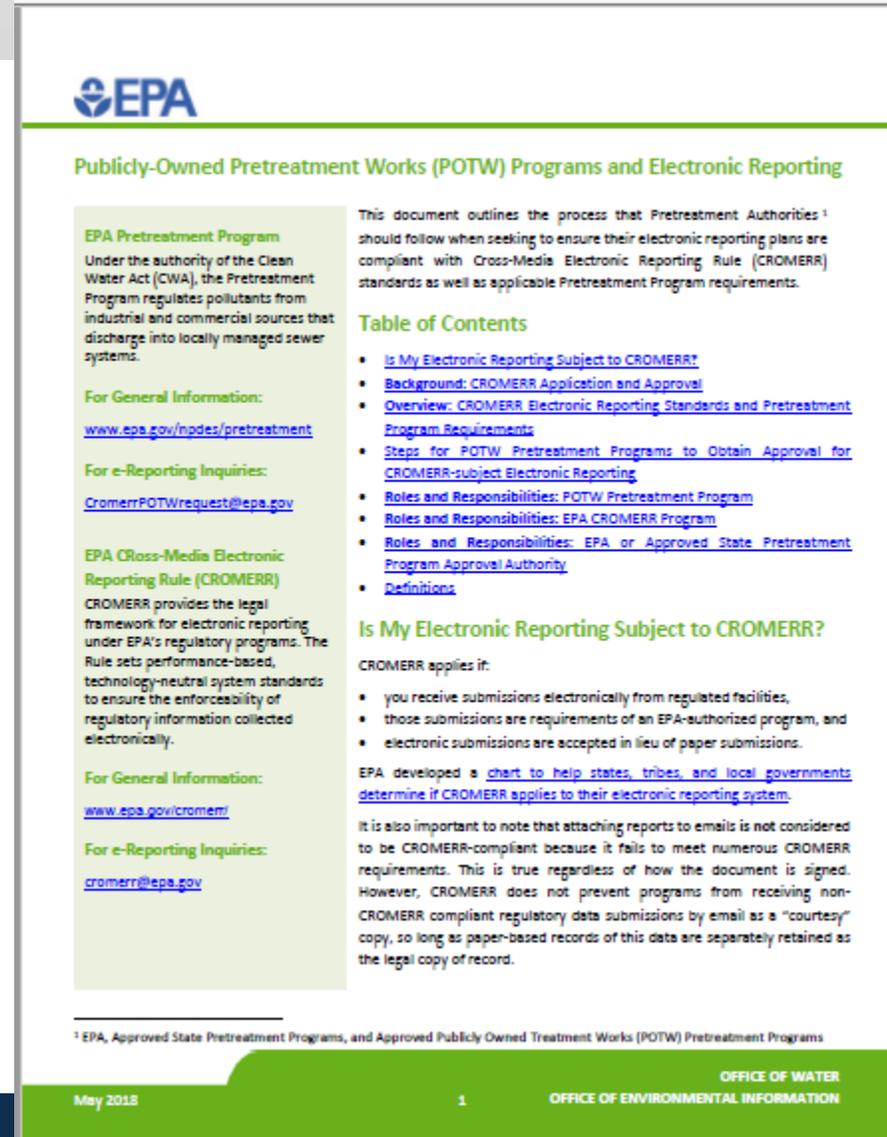
CROMERR = CROss Media Electronic Reporting Rule

Guidance issued May 2018

https://www.epa.gov/sites/production/files/2018-05/documents/cromerr_potw_1.pdf

“Roles and Responsibilities: POTW Pretreatment Program” *for POTWs that want to receive reports from their Industrial Users*

- Verify Legal Validity of Electronic Signatures
- Prepare CROMERR System Documentation, If Needed
- Review and Update Pretreatment Program Requirements



EPA

Publicly-Owned Pretreatment Works (POTW) Programs and Electronic Reporting

EPA Pretreatment Program
Under the authority of the Clean Water Act (CWA), the Pretreatment Program regulates pollutants from industrial and commercial sources that discharge into locally managed sewer systems.

For General Information:
www.epa.gov/npdes/pretreatment

For e-Reporting Inquiries:
CromerrPOTWrequest@epa.gov

EPA Cross-Media Electronic Reporting Rule (CROMERR)
CROMERR provides the legal framework for electronic reporting under EPA's regulatory programs. The Rule sets performance-based, technology-neutral system standards to ensure the enforceability of regulatory information collected electronically.

For General Information:
www.epa.gov/cromerr/

For e-Reporting Inquiries:
cromerr@epa.gov

This document outlines the process that Pretreatment Authorities¹ should follow when seeking to ensure their electronic reporting plans are compliant with Cross-Media Electronic Reporting Rule (CROMERR) standards as well as applicable Pretreatment Program requirements.

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- [Is My Electronic Reporting Subject to CROMERR?](#)
- [Background: CROMERR Application and Approval](#)
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- [Roles and Responsibilities: EPA or Approved State Pretreatment Program Approval Authority](#)
- [Definitions](#)

Is My Electronic Reporting Subject to CROMERR?

CROMERR applies if:

- you receive submissions electronically from regulated facilities,
- those submissions are requirements of an EPA-authorized program, and
- electronic submissions are accepted in lieu of paper submissions.

EPA developed a [chart to help states, tribes, and local governments determine if CROMERR applies to their electronic reporting system](#).

It is also important to note that attaching reports to emails is not considered to be CROMERR-compliant because it fails to meet numerous CROMERR requirements. This is true regardless of how the document is signed. However, CROMERR does not prevent programs from receiving non-CROMERR compliant regulatory data submissions by email as a "courtesy" copy, so long as paper-based records of this data are separately retained as the legal copy of record.

¹ EPA, Approved State Pretreatment Programs, and Approved Publicly Owned Treatment Works (POTW) Pretreatment Programs

May 2018

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OFFICE OF WATER
OFFICE OF ENVIRONMENTAL INFORMATION



NPDES Electronic Reporting Rule: 40 CFR 127

DMRs reporting began Dec. 21, 2016

Biosolids reporting began Feb. 19, 2017

Pretreatment Annual Reports to begin reporting electronically Dec. 21, 2020

NPDES programs submit NPDES program data to EPA (data they collect and generate, such as inspections and enforcement actions).



Pretreatment Program Annual Reports in one EPA Region (Region 9, 2009)

NPDES Electronic Reporting Rule: 40 CFR 127

- EPA-State Pretreatment Technical Workgroup kicked off 5 April 2017
- [Implementation Technical Paper, 27 July 2018](#)
 - Define the reference values, business rules, and other data standards
 - Discuss options for data access so that they are useful for program management.
 - Make recommendations for future IT development
- Next steps
 - Computer Programming (as necessary)
 - Beta Testing of Forms
 - Implementation



Lead for this technical workgroup is
Carey Johnston
(Office of Compliance)

johnston.carey@epa.gov

Per- and Polyfluoroalkyl Substances (PFAS)

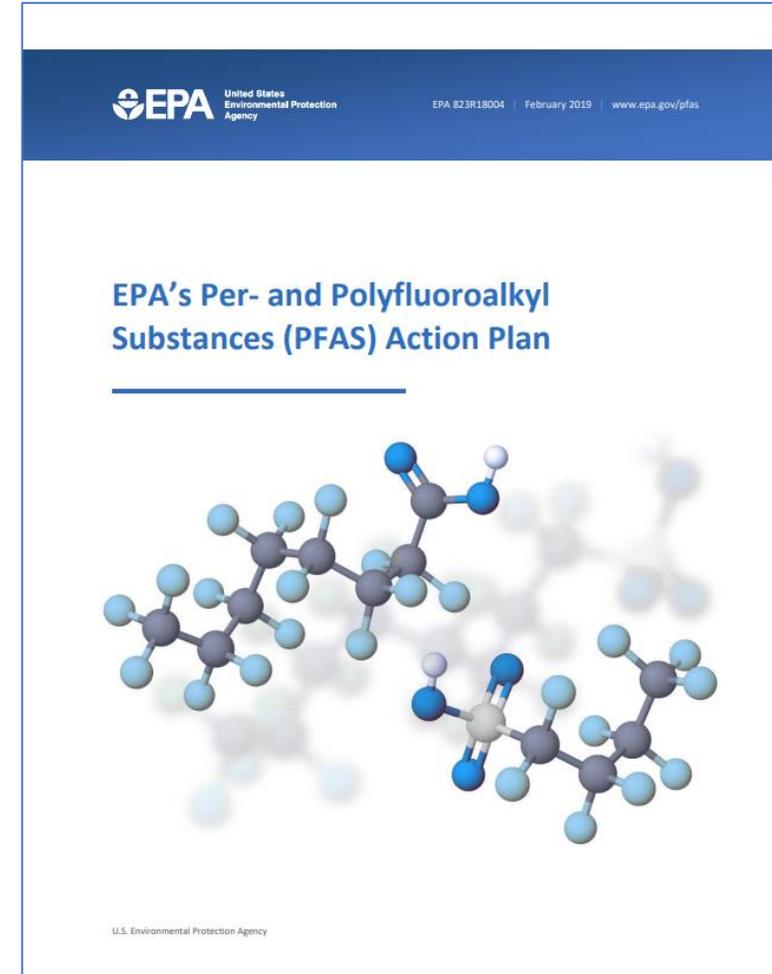
[EPA's PFAS Action Plan](#) - February 2019

[Draft Interim Recommendations to Address Groundwater Contaminated with Perfluorooctanoic Acid and Perfluorooctane Sulfonate \(PDF\)](#)

- Issued April 25, 2019; Open for comment through June 10, 2019
- Docket ID No. EPA-HQ-OLEM-2019-0229, at <https://www.regulations.gov>

[PFAS Research](#)

- [EPA Method 537.1](#) – expanded to include 4 more PFAS
- [Drinking Water Treatability Database](#)
- [Reducing PFAS in Drinking Water with Treatment Technologies](#)



National Pretreatment Program

Events, Training, and Publications



Introductory Pretreatment Training	
Dates	Locations
November/December 2019	Baltimore
Spring-ish 2020	West-ish
April 2020	Chicago

<https://www.epa.gov/npdes/national-pretreatment-program-events-training-and-publications#training>

National Pretreatment Program Events, Training, and Publications

Documents Under Revision	Original Date of Issuance
Guidance Manual for POTW Pretreatment Program Development	1983
Procedures Manual for Reviewing a POTW Pretreatment Program Submission	1983
Completion of Appendices to IU Permit Writing Manual: Appendix I – Production Based Standards Appendix J – Combined Wastestream Formula	1985
Guidance for Developing Control Authority Enforcement Response Plans	1989
Pretreatment Program pH Requirements – Summary/Fact Sheet	





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