



**Essential Pretreatment program
knowledge and requirements in
accordance with 40 CFR 403**



Purpose

It establishes responsibilities of Federal, State, and local government, industry and the public to implement National Pretreatment Standards to control pollutants which pass through or interfere with treatment processes in Publicly Owned Treatment Works (POTWs) or which may contaminate sewage sludge.

Applicability

To pollutants from non-domestic sources covered by Pretreatment Standards which are indirectly discharged into or transported by truck or rail or otherwise introduced into POTWs as defined below in 403.3;



Applicability

To POTWs which receive wastewater sources subject to National Pretreatment Standards;

Definitions

Act	Water Management Division Director	NPDES Permit	Pretreatment Requirements
Approval Authority	Indirect Discharge	NPDES State	Regional Administrator
Approved POTW Pretreatment Program	Industrial User	Pass Through	Significant Industrial User
Best Management Practice(BMP)	Interference	Publicly Owned Treatment Works(POTW)	Submission
Control Authority	National Pretreatment Standard	POTW Treatment Plant	40 CFR 403.3
Director	New Source	Pretreatment	



State or Local Law

Nothing in this regulation is intended to affect any Pretreatment Requirements, including any standards or prohibitions, established by State or local law as long as the State or local requirements are not less stringent than any set forth in National Pretreatment Standards, or any other requirements or prohibitions established under the Act or this regulation.

When are Pretreatment Programs required?

Total design flow of 5 MGD for POTW	Nature or volume of industrial wastewater entering influent of wastewater facility
Upsets	Violations of NPDES permit limits
Sludge contamination	Interference or pass-through



If program is just starting when do I need to have a program submitted?

- Upon Approval Authority notification of requirement as soon as possible but no later than one year.

What's First?

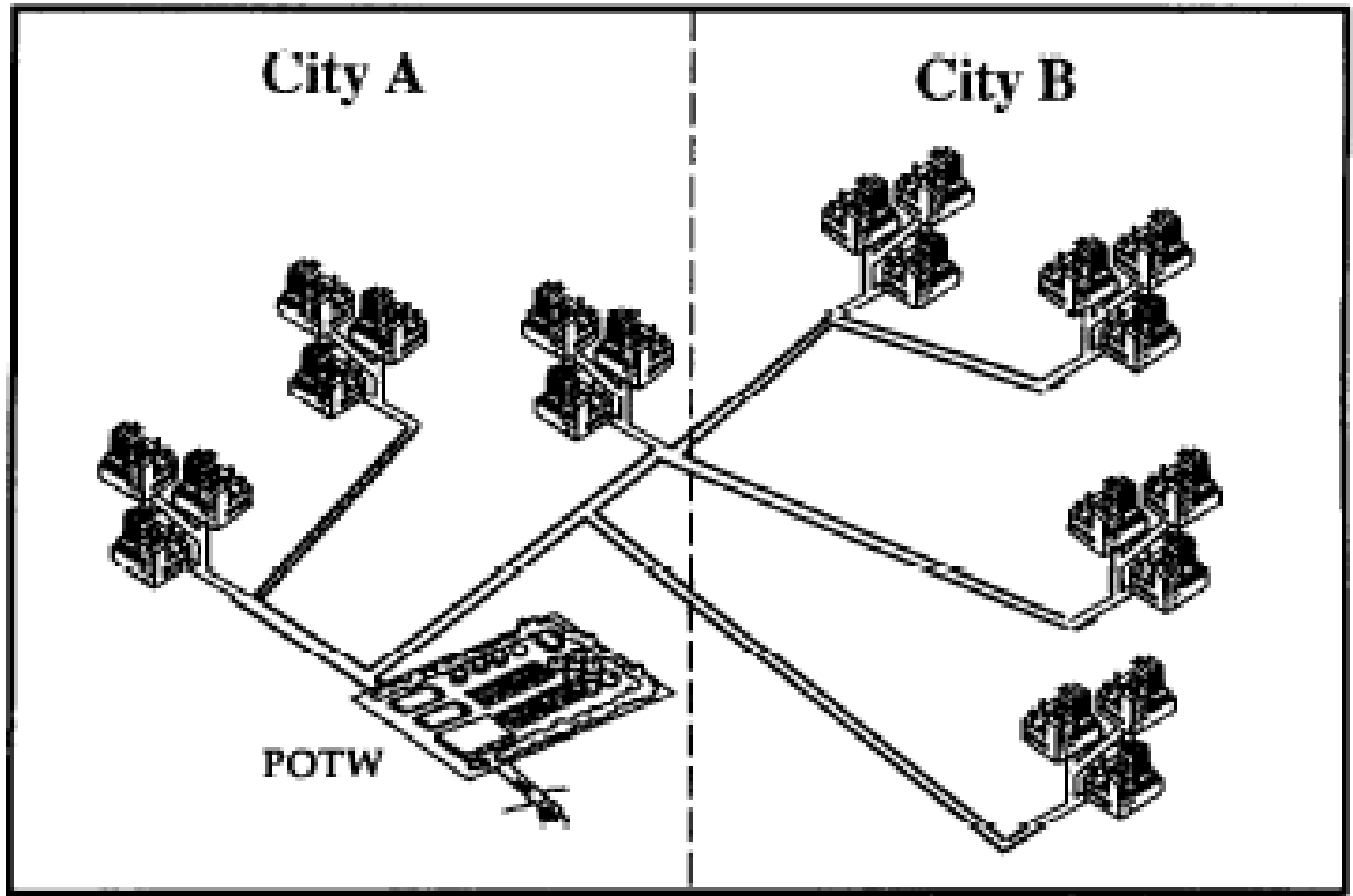




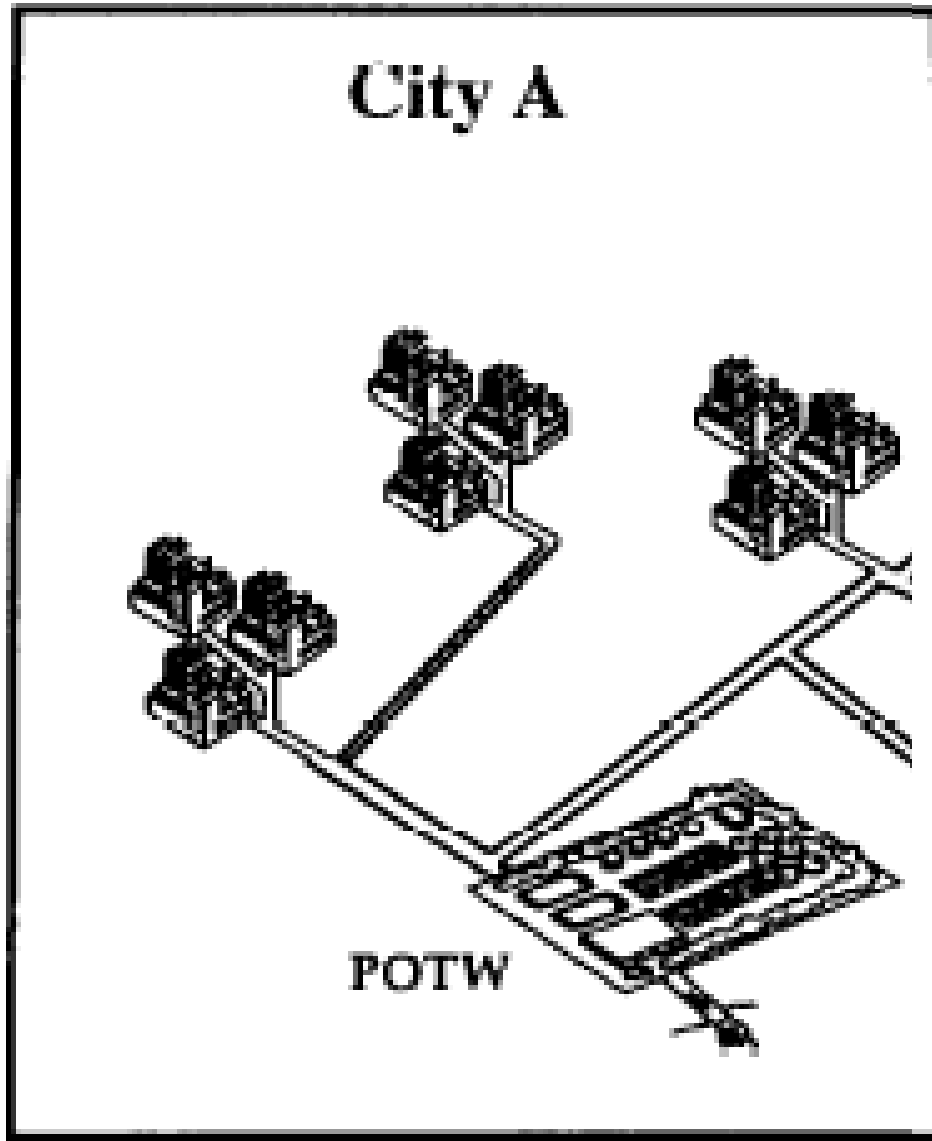
Legal Authority

- Rules/Regulations
- Ordinances
- Multijurisdictional agreements

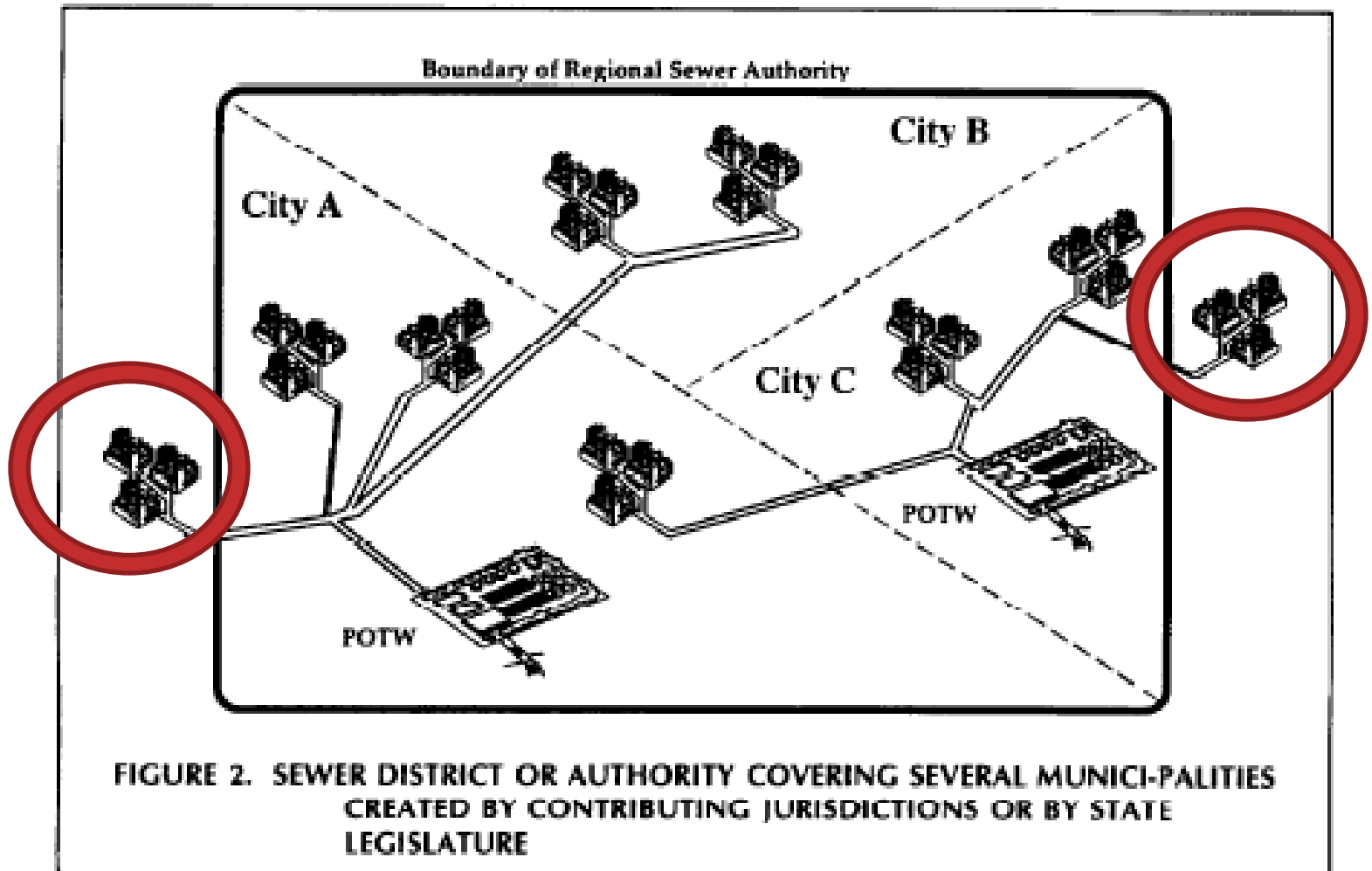
Rules & Regulations



Ordinances



Multijurisdictional Agreements



Legal Authority

Important to note:

- Provides you the right to act.

40 CFR 403.8(f)(1)

- The review of this document when submitting for approval may take awhile.
 1. Attorney
 2. Approval Authority(State/EPA)
 3. Public Comment (minimum 30 days in accordance with 40 CFR 25)
- Approval Authority looks at this prior to an audit

What needs to be included in the Legal Authority?

- i. Control of discharges
- ii. Requirement for compliance with Pretreatment Standards
- iii. Permit and/or other control mechanisms (Right of Issuance and conditions)
- iv. Require the development of a compliance schedule for the installation of technology required to meet applicable Pretreatment Standards and Requirements
- v. Right of entry (Inspections, surveillance, and monitoring)
- vi. Remedies for non-compliance (injunctive relief, civil, and criminal penalties)
- vii. Confidentiality requirements

Control of Discharges

How to control:

- Deny: No discharge/Haul away
- Condition: Treatment
- Allow: No Treatment

Control of Discharges

When to Control:

- National Pretreatment Standard
- New discharge
- Increase contribution (flow or concentration)
- Changes in the nature of pollutants

40 CFR 403.8(f)(1)(i)



New Pretreatment Standard

- Within 180 days after the effective date of a categorical Pretreatment Standard or final administrative decision made upon a categorical determination submission...



New Discharge of Pretreatment Standard

- At least 90 days prior to commencement of discharge, New Sources, and sources that become Industrial Users subsequent to the promulgation of an applicable categorical Standard....

Control of Discharges

- Include a specific provision requiring IUs to provide timely notice of any substantial change in the quantity or quality of their industrial waste discharge to the POTW.

Pretreatment Standards compliance

- Federal
 1. General Prohibitions - 40 CFR 403.5(a) – Pass-through or Interference
 2. Specific Prohibitions - 40 CFR 403.5(b) – fire, explosion, pH, toxic gas
 3. Categorical Limits - 40 CFR 404 through 471
 - a. Direct discharge control only (no POTW control)
 - b. New or Existing Source
 - c. Concentration based limits
 - d. Production based limits
 - e. Zero discharge requirement

40 CFR 403.8(f)(1)(ii)

Pretreatment Standards compliance

- Local Limits - POTW developed
 1. Sludge capacity
 2. POTW plant effluent
 3. Flow

- Best Management Practices
 1. Fats, Oils, and Greases (F.O.G.)
 2. Dental Amalgam (Mercury)



Permit and/or Other Control Mechanisms

- **Legal Authority(Right) to issue permits**
- What **type of control mechanism** will be issued(individual or general permits, compliance orders, etc.)
- **Duration** (no longer than 5 years)
- **Non-transferability** without, at a minimum, prior notification to the POTW and provision of a copy of the existing control mechanism to the new owner or operator



Permit and/or Other Control Mechanisms

- **Effluent limits** (General Prohibition, Specific Prohibition, Categorical, Local, Best Management Practices, Flow)
- **Sampling** (POTW, Self Monitoring)
 1. Pollutants
 2. Frequency
 3. Method (40 CFR 136)



Permit and/or Other Control Mechanisms

- **Reporting** (90 Day Compliance, Periodic Compliance reports)
- **Recordkeeping** (minimum 3 years)
- **Applicable civil and criminal penalties**
- **Requirements to control Slug Discharges**

Compliance Schedule

- Development of a compliance schedule for the installation of technology required to meet applicable Pretreatment Standards...

Compliance Schedule

- Submission of all notices and self-monitoring reports from Industrial Users as are necessary to assess and assure compliance, including but not limited to reports required in 403.12, which are:
 1. Baseline Report
 2. 90 Day Compliance Report
 3. Periodic Compliance Report
 4. Slug Load notices
 5. Certification Statements

Right of Entry

- The ability to be allowed on the facility's property to perform:
 1. Inspection
 2. Surveillance
 3. Monitoring

40 CFR 403.8(f)(1)(v)

Never use the words “reasonable time” be
specific.

Remedies for Non-Compliance

- Injunctive Relief – Prohibit/stop a discharge
- Civil Penalties – Sought as compensation for damages
- Criminal Penalties – Punish the person for wrong doing

Confidentiality Requirements

- Pretreatment programs shall comply with 40 CFR 403.14.
 1. Claims must be asserted at time of submission.
 2. Stamping of “confidential business information” on each page containing such information
 3. Confidentiality claims shall be treated in accordance with 40 CFR part 2
 4. Effluent data shall be available to the public without restriction

What's next?





Procedures

- i. Identify and locate all possible Industrial Users which might be subject to the POTW Pretreatment Program, which are:
 - 1. Categorical Industrial Users
 - 2. Significant Industrial Users
 - 3. Industrial Users that may adversely affect the POTW such as F.O.G. or Mercury programs



Industrial Waste Survey

- Name of Industry
- Address of facility
- Standard Industrial Classification code(SIC) or North American Industrial Classification Standard (NAICS)
- Wastewater flow
- Types and concentrations of pollutants contained in discharge
- Major products manufactured or services supplied
- Description of existing on-site pretreatment facilities and practices



Industrial Waste Survey

Additional information for better evaluation:

- Locations of discharge points
- Raw materials used or stored at the site
- Flow diagram or sewer map for the industry
- Number of employees
- Operation and production schedules
- Spill Prevention Control and Countermeasures (SPCC) plan description

Procedures

- ii. Identify the character and volume of pollutants contributed by Industrial Users identified under paragraph (f)(2)(i)





Procedures

- iii. Notify Industrial Users identified as Significant Industrial User of status and applicable Pretreatment Standards within 30 days of determination.

Procedures

- iv. Receive and analyze self-monitoring reports and other notices submitted by Industrial Users in accordance with the self-monitoring requirements in 403.12

Procedures

- v. Randomly sample and analyze the effluent from Industrial Users and conduct surveillance activities in order to identify occasional and continuing noncompliance with Pretreatment Standards.



40 CFR 403.8(f)(2)

Procedures

- v. Inspect and sample the effluent from each Significant Industrial User at least once a year



Make sure you understand your Approval Authorities interpretation.

Example: State of Utah is within 365 days of last inspection or sample.

40 CFR 403.8(f)(2)

Procedures

- vi. Evaluate whether each Significant Industrial User needs a Slug Discharge Control Plan or other action to control Slug Discharges. Significant Industrial Users must be evaluated within **one year** of being designated a Significant Industrial User.



Slug Discharge Control Plan

- A. Description of discharge practices, including non-routine batch Discharges;
- B. Description of stored chemicals;
- C. Procedures for immediately notifying the POTW of Slug Discharges, including any Discharge that would violate a prohibition with procedures for follow-up written notification within five days;

Slug Discharge Control Plan

- A. If necessary, procedures to prevent adverse impact from accidental spills, including
 1. Inspection and maintenance of storage areas,
 2. Handling and transfer of materials,
 3. Loading and unloading operations,
 4. Control of plant site run-off,
 5. Worker training,
 6. Building of containment structures or equipment,
 7. Measures for containing toxic organic pollutants(including solvents) and/or
 8. Measures and equipment for emergency response;

Procedures

- vii. Investigate instance of noncompliance with Pretreatment Standards and Requirements, as indicated in the reports and notices or indicated by analysis.



Procedures

- viii. Comply with public participation requirements of 40 CFR part 25 in the enforcement of National Pretreatment Standards. These procedures shall include provision for at least annual public notification in a newspaper(s) of general Circulation that provides meaningful public notice within the jurisdiction(s) served by the POTW of Industrial Users which, at any time during the previous 12 months, were in significant noncompliance...

Significant Noncompliance(SNC)

- A. Chronic violations – 66 percent or more during a 6-month period exceed

- B. Technical Review Criteria (TRC) violations- 33 percent or more during a 6-month period exceed the numeric standard multiplied by the applicable TRC
 - 1. TRC= 1.4 for BOD,TSS, fats, oil, and grease
 - 2. TRC= 1.2 for all other pollutants except pH

Significant Noncompliance(SNC)

- C. Any other violation of a Pretreatment Standard or requirement that the POTW determines has caused , alone , or in combination with other Discharges, Interference or Pass Through(including endangering the health of POTW personnel or the general public)

- D. Any discharge of a pollutant that has cause imminent endangerment to human health, welfare or to the environment or has resulted in the POTW's exercise of its emergency authority to halt or prevent such a discharge

Significant Noncompliance(SNC)

- E. Failure to meet, within 90 days after the schedule date, a compliance schedule date, a compliance schedule milestone contained in a local control mechanism or enforcement order for starting construction, completing construction or attaining final compliance;
- F. Failure to provide, within 45 days after the due date, required reports such as baseline monitoring reports, 90-day compliance reports, periodic self-monitoring reports, and reports on compliance with compliance schedules;
- G. Failure to accurately report noncompliance



Significant Noncompliance(SNC)

- H. Any other violation or group of violations, which may include a violation of Best Management Practices, which the POTW determines will adversely affect the operation or implementation of the local Pretreatment Program.

Significant Noncompliance(SNC)

Table I - SNC Time Frames

SNC Quarter	Chronic Effluent and TRC Violations 40CFR '403.8(f)(2)(vii)(A&B)	Reporting Requirements and Other Criteria 40 CFR '403.8(f)(2)(vii)(C-H)
1st Quarter	October-March	January-March
2nd Quarter	January-June	April-June
3rd Quarter	April-September	July-September
4th Quarter	July-December	October-December

Funding

- The POTW shall have sufficient resources and qualified personnel to carry out the authorities and procedures.

EPA POTW Pretreatment Program Development Table 7.2

POTW Flow Range (MGD)	Relative Number of Indirect Dischargers	Range of Personnel Requirements for Pretreatment Program
5	small large	1-3 2-5
5-25	small large	2-4 4-8
25-50	small large	4-6 8-10
50	small large	6-8 10-15
100	large	15-50*



EPA POTW Pretreatment Program Development 7.1.2.4

Staff Qualifications:

- Education and experience should be appropriate for the tasks that the person will be expected to perform.
- The pretreatment program is likely to require support from personnel with experience in:
 - Engineering (Environmental, civil, sanitary, or chemical)
 - Chemistry
 - Public Administration
 - Accounting and Finance
 - Law

Local Limits

- The POTW shall develop local limits or demonstrate that they are not necessary.

<u>Pollutants</u>	<u>Daily Maximum (mg/l)</u>
Cyanide	8.7
Aluminum	865.9
Arsenic	16.1
Cadmium	2.4
Chromium	9.3
Copper	33.0
Lead	46.2
Mercury	0.0055
Nickel	188.8
Selenium	4.4
Silver	8.8
Zinc	181.6

40 CFR 403.8(f)(4)



Enforcement

- The POTW shall develop and implement an enforcement response plan.



Enforcement Response Plan

- i. Describe how instances of noncompliance will be investigated
- ii. Types of escalating enforcement that will taken to anticipated types of industrial user violations and the time responses will take place.
- iii. Identify the authorized representative responsible for each type of response.
- iv. Adequately reflect the POTW's primary responsibility to enforce Pretreatment Standards



List of Industrial Users

- A list of Industrial Users shall be maintained. The list shall identify the Industrial Users that meet the Significant Industrial User criteria or why Industrial Users do not meet the Significant Industrial User criteria.



Electronic Documents

- Electronic reporting must meet requirements in 40 CFR Part 3.