TAUD
2024 Technology Conference

Developing, Implementing, and Enforcing Your Pretreatment Program

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NATIONAL PRETREATMENT PROGRAM

WHY? Industrialization of the U.S. and pollution created environmental problems and growing public health concern

The Cuyahoga River in Cleveland was one of the most polluted rivers in the U.S. – caught on fire in 1969 (it caught fire a total of 13 times since 1868)

Photo: Cleveland State University Library

Sources of Water Pollution

FilterWater.com

Clean Water Act

- Rachel Carson's *Silent Spring* was published, and an environmental movement swept across the nation to the halls of Congress
- U.S. EPA created in 1970
  - to Protect Human Health and the Environment
- The Federal Clean Water Act (Federal Water Pollution Control Act) was passed on October 18, 1972, to restore and maintain the integrity of the nation's water
- The act's goal was simple – all waters should be fishable and swimmable

NPDES Permit Program

- EPA NPDES Permit Program Established
- Point source/direct dischargers must have a permit
- Eliminate the introduction of pollutants into the nation's waters and to achieve fishable and swimmable water quality levels
- POTWs designed to treat domestic sewage
  - receive wastewater from homes, commercial buildings, and industrial facilities

Water Pollution – No More

National Pretreatment Program 40 CFR 403

- Regulates *indirect discharges*
- Non-domestic sources that discharge to POTWs (local government agencies, municipalities, utilities)
- Industrial Users (IUs) - Industrial and commercial dischargers may need to obtain permits
- Partnership between EPA, states, and POTWs
- IU must pretreat or control pollutants to POTW

Objectives stated in 40 CFR 403.2

- Prevent introduction of pollutants into POTWs that will ***interfere*** with the operation of the POTW, including interference with its use or disposal of municipal sludge
- Prevent the introduction of pollutants into a POTW that will ***pass through*** the treatment works or otherwise be incompatible with such works
- Improve opportunities to recycle and reclaim municipal and industrial wastewaters and sludges

In summary: prevent discharge of untreated or inadequately treated wastewater into rivers, lakes, and other waters of the U.S.

Who Must Develop a Pretreatment Program?

- All POTWs designed to treat > 5 MGD
- Smaller POTWs that accept wastewater from IUs that could affect the treatment plant or its discharges
- ~ 1,600 POTWs have developed and implemented local pretreatment programs to control discharges from ~ 23,000 significant IUs

NPDES Permit Requirement

- 36 states including Tennessee are authorized to act as the approval authority for POTWs in their states
- NPDES permits issued to POTWs include conditions outlining pretreatment program implementation requirements
- Permittee shall develop, operate, and implement a POTW pretreatment program in accordance with federal Clean Water Act, the federal General Pretreatment Regulations 40 CFR Part 403, and TN DEC Pretreatment Requirements

NPDES Permit Requirement

3.2. POTW PRETREATMENT PROGRAM GENERAL PROVISIONS

As an update of information previously submitted to the division, the permittee will undertake the following activity.

a. The permittee has been delegated the primary responsibility and therefore becomes the "control authority" for enforcing the 40 CFR 403 General Pretreatment Regulations. Where multiple plants are concerned the permittee is responsible for the Pretreatment Program for all plants within its jurisdiction. The permittee shall implement and enforce the Industrial Pretreatment Program in accordance with Section 403(b)(8) of the Clean Water Act, the Federal Pretreatment Regulations 40 CFR 403, Tennessee Water Quality Control Act Part 69-3-123 through 69-3-128, and the legal authorities, policies, procedures, and financial provisions contained in its approved Pretreatment Program, except to the extent this permit imposed stricter requirements. Such implementation shall require but not limit the permittee to do the following:

   i. Carry out inspection, surveillance, and monitoring procedures which will determine, independent of information supplied by the industrial user (IU), whether the IU is in compliance with the pretreatment standards;

   ii. Require development, as necessary, of compliance schedules for each IU for the installation of control technologies to meet applicable pretreatment standards;

   iii. Require all industrial users to comply with all applicable monitoring and reporting requirements outlined in the approved pretreatment program and IU permit;

   iv. Maintain and update, as necessary, records identifying the nature and character of industrial user discharges, and retain such records for a minimum of three (3) years;

   v. Obtain appropriate remedies for noncompliance by an IU with any pretreatment standard and/or requirement;

Developing a Program

- Refer to EPA Guidance Documents and Webinars on WWW.EPA.GOV AND WWW.TN.GOV

- Surprise…so many Acronyms and Abbreviations

ACRONYMS AND ABBREVIATIONS:

AHL - Allowable Headworks Loading
BMP - Best Management Practice
BOD - Biochemical Oxygen Demand
BPT - Best Practicable Control Technology Currently Available
CFR - Code of Federal Regulations
CIU - Categorical Industrial User
CWA - Clean Water Act
ELG - Effluent Limitations Guideline
EPA - [U.S.] Environmental Protection Agency

Many Definitions

All found in EPA guidance documents:

- Indirect discharge or discharge [40 CFR 403.3(i)] The introduction of pollutants into a POTW from any non-domestic source regulated under CWA section 307(b), (c) or (d).
- Industrial user (IU) or user [40 CFR 403.3(j)] A source of indirect discharge.
- Local limits [40 CFR 403.5(c)] Specific discharge limits developed and enforced by POTWs upon industrial or commercial facilities (IUs) to implement the general and specific discharge prohibitions listed in 40 CFR 403.5(a)(1) and (b).
- Maximum Allowable Headworks Loading (MAHL) The estimated maximum loading of a pollutant that can be received at a POTW's headworks without causing pass through or interference. The most protective (lowest) of the allowable headworks loadings (see definition) estimated for a pollutant.
- Maximum Allowable Industrial Loading (MAIL) The estimated maximum loading of a pollutant that can be received at a POTW's headworks from all permitted IUs and other controlled sources without causing pass through or interference. The MAIL is usually calculated by applying a safety.

Aggressive Implementation Schedule

- Approximately 1 year to develop the program, so get started immediately upon receiving your NPDES permit
- Submit pretreatment program to your state within 1 year from permit issuance or as outlined in your permit
- Begin implementation of approved pretreatment program within 1 year after permit issuance

Pretreatment Program Major Elements

- Legal Authority
- Sampling Plan
- Local Limits
- Compliance Monitoring Program
- Program Implementation Procedures
- Enforcement Response Plan
- Program Organization, Costs and Revenue Sources
- Pretreatment Report
- State Inspections and Audits

Legal Authority

POTW must operate pursuant to legal authority enforceable in federal, state or local courts, which authorizes the POTW to apply and enforce any pretreatment requirements developed pursuant to the CWA and implementing regulations. At a minimum, the legal authority must enable the POTW to:

- Deny or condition discharges to the POTW;
- Require compliance with pretreatment standards and requirements;
- Control IU discharges through permits, orders or similar means;
- Require IU compliance schedules when necessary to meet applicable pretreatment standards and/or requirements and the submission of reports to demonstrate compliance;
- Inspect and monitor IUs;
- Obtain remedies for IU non-compliance; and
- Comply with confidentiality requirements.

Legal Authority

- Develop Rules and Regulations - POTWs seeking pretreatment program approval must develop policy and procedures for program implementation and establish the legal authority to implement and enforce program requirements.
- Solicitor's Statement – is Authority covered by state law?
- Enforcement Response Plan (ERP) - The POTW must develop and implement an ERP that contains detailed procedures indicating how the POTW will investigate and respond to instances of IU non-compliance.

November 11, 2016

Mr. Stephen G. Copeland
NPDES Permits Branch (3WP41)
Water Protection Division
United States EPA, Region III
1650 Arch Street
Philadelphia, Pennsylvania 19103-2029

Re: Industrial Pretreatment Program – NPDES No. PA0026735
Solicitor's Statement of Legal Authority

Dear. Mr. Copeland:

I serve as Solicitor for the Swatara Township Authority (the "Authority"). The following statement is submitted in response to your correspondence to Mr. David L. Neidig dated June 6, 2016, a copy of which is enclosed, regarding the necessary Solicitor's Statement of the Authority's legal authority to implement and enforce its Pretreatment Program.

It is the opinion of the undersigned that the Authority has the authority to carry out the Pretreatment Program throughout its service area. The Authority is a Pennsylvania authority organized and existing under the Municipality Authorities Act ("MAA"), 53 Pa.C.S.A. § 5601, *et seq.* The MAA empowers the Authority to adopt reasonable rules and regulations with respect to its sewage collection and treatment system. The Authority has adopted such Rates, Rules and Regulations (as amended), which authorize the Authority to require pretreatment of certain discharges to an acceptable condition. Accordingly, the Authority is able to implement and enforce the Pretreatment Program with respect to its own retail customers including industrial users.

Additionally, the Authority provides wastewater treatment service to certain other municipalities as wholesale customers subject to an Intermunicipal Agreement (the "Agreement") as permitted under the MAA. The Agreement prohibits the discharge of industrial wastes having certain characteristics including any discharge containing substances prohibited under EPA or Pa. DEP regulations. Moreover, the Agreement prohibits the connection of any industrial user discharging wastes having a deleterious effect on the sewage treatment process or which cannot be processed by the Treatment Plant in the ordinary course of operation. Finally, all parties to the

Developing a Sampling Plan

Three main aspects of the sampling plan are:

- Identify sampling locations
- Identify applicable parameters to be sampled (pollutants of concern)
- Identify the frequency of sampling
- Must Submit Sampling Plan to state for approval
- Sample results will be used to develop Local limits.

POTW Sampling Plan - Locations

- The minimum allowable is influent, sludge and effluent.
- A background sample is required to be able to separate the pollutants coming from industrial users compared to residential users.

Selecting Parameters / Pollutants to Sample

Pollutants to be evaluated may include:

- 15 listed in the EPA local limits guidance
- those listed in the NPDES permit
- Pollutants of Concern
- those regulated for land application
- those detected in the effluent

Sampling and analysis will be done using methods approved in 40 CFR Part 136

Number of Samples/Analysis

	POTW Influent	POTW Effluent	Receiving Stream	Background/ Residential	Sludge	Method	Waste Stream DL
As	7*	7*	1	5*	2	EPA 200.8	0.001
Cd	7*	7*	1	5*	2	EPA 200.8	0.005
Cr	7*	7*	1	5*	2	EPA 200.8	0.005
Cu	7*	7*	1	5*	2	EPA 200.8	0.01
Pb	7*	7*	1	5*	2	EPA 200.8	0.01
Hg	7*	7*	1	5*	2	EPA 245.1	0.0002
Mo	7*	7*	1	5*	2	EPA 200.8	0.001
Ni	7*	7*	1	5*	2	EPA 200.8	0.005
Se	7*	7*	1	5*	2	EPA 200.8	0.002
Ag	7*	7*	1	5*	2	EPA 200.7	0.005
Zn	12	12	3	5*	12	EPA 200.8	0.005
Ammonia-N	12	DMR 5 yrs.	3		12	ASTM D6916-03	0.1
BOD	DMR 5 yrs.	DMR 5 yrs.	3			SM 5210-B	2
TSS	DMR 5 yrs.	DMR 5 yrs.	3			SM 2540D	4
P	12	DMR 5 yrs.	3			SM 4500-P-B/E	0.02
Fe (Total)	12	12	3	5		EPA 6010B	2.2
Methyl Chloride	7	7	1	1	7	EPA 624	1
Mn	8	8	3	5	8	EPA 6010B	0.3
Al	8	8	3	5	8	EPA 6010B	0.22
Cyanide	12	12	3	5	12	10201001X	0.005

*Sampling will be evaluated after three(3) are taken to determine if additional sampling is warranted.

Example Sampling Plan

Sample Parameters, Frequency and Location								
Sample Parameter	**Background**	**Raw Influent**	**Influent to secondary treatment**	**Influent to sludge digester**	**Sludge**	**Influent to Acid Phase Digester**	**Influent to Biological Treatment Tank**	**Effluent**
No. of Samples	10	10	10	10	10	15	15	10
Ammonia	X							
Arsenic	X	X	X		X		X	X
Bis(2-ethylhexyl) Phthalate	X	X	X		X		X	X
BOD5	X							
Cadmium	X	X	X		X		X	X
Chromium	X	X	X		X		X	X
Copper	X	X	X		X		X	X
Cyanide	X	X	X	X	X	X	X	X
Lead	X	X	X		X		X	X
Mercury	X	X	X		X		X	X
Molybdenum	X	X	X		X		X	X
Nickel	X	X	X		X		X	X
Oil & Grease	X	X	X				X	X
PCBs	X	X	X		X		X	X
Selenium	X	X	X		X		X	X
Silver	X	X	X		X		X	X
Total Nitrogen	X	X	X		X		X	X
Total Phosphorus	X							
Total Suspended Solids	X							
Zinc	X	X	X		X		X	X

Sampling Plan Checklist - Chambersburg

	Y/N
List of Pollutants to be Evaluated	
• Standard 15 pollutants?[1]	✓
• Existing local limit pollutants?	✓
• Toxic pollutants listed in the NPDES permit?	✓
• Toxic pollutants listed in other disposal requirements (sludge, air, etc.)	✓
• Other pollutants identified in priority pollutant scans?	✓
• Other pollutants identified in an applicable TMDL or 303(d) listing?	✓
• If no to any of the above, is appropriate justification provided?	N/A
Appropriate Sampling Points	
• Influent (prior to any recycle stream)?	✓
• Effluent?	✓
• Background (including unregulated commercial and industrial)?	✓
• Digester influent (for non-conservative pollutants w/inhibition criteria)?	✓
• Internal points (influent to treatment units with inhibition criteria)?	✓
• Hauled waste?	N/A
Number of Samples	
• Use of existing data?	✓
• More than 10 sample events?	✓
Sample Type	
• Grab for required pollutants[2]?	✓
• 24-hour composite for all others?	✓
Analytical Methods	
• Use of EPA approved methods?	✓
• Use of most sensitive methods?	

[1]Arsenic, cadmium, chromium, copper, cyanide, lead, mercury, molybdenum, nickel, selenium, silver, zinc, BOD, TSS, and ammonia

[2]Cyanide, total phenols, volatile organics, oil & grease, sulfide, and pH

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
1650 Arch Street
Philadelphia, Pennsylvania 19103-2029

Mr. Travis Amsley
Assistant Water/Sewer Superintendent
Borough of Chambersburg
100 South 2nd Street
Chambersburg, Pennsylvania 17201

JUN 2 2 2017

Re: NPDES No. PA0026051
Local Limits Parameters and Sampling Plan

Dear Mr. Amsley,

I have completed my review of the Borough's list of pollutants and sampling plan for the reevaluation of its local limits submitted on April 25, 2017 by your consultant Stephanie Clay of The Arro Group. Based on my review, the plan is generally acceptable. However, a review of past sampling data in our files indicates that the expected detection limits for arsenic, cadmium, molybdenum, nickel, selenium and silver yield a number of non-detectable results for these pollutants. For molybdenum, nickel and selenium the Borough proposed to use EPA Method 200.7. In general EPA Method 200.8 is more sensitive and would be recommended for these pollutants if. In any case, for all of the aforementioned pollutants it is strongly recommended that the Borough contact its lab to see if lower detection limits for these pollutants are possible. Detectable results will make for a more reliable local limits reevaluation. In addition, if it is not being done already, the Borough should request that its lab report results down to the detection level rather than the reporting level. Results below the reporting level and above the detection level would be provided as estimated values, but these estimated values would likely be more representative of the actual pollutant levels than an estimate (such as the detection level or half the detection level) based simply on the number of non-detectable results in the data set.

My records indicate that the Borough's reevaluation is due on January 31, 2018. If you have any questions regarding this matter, please contact me at 215-814-5736, or by e-mail at green.margaret@epa.gov.

Sincerely,

Margaret Green
NPDES Permits and Enforcement (3WP41)
Water Protection Division

Submissions to EPA

- As parts of your program are being development, submit to the state for review
- Do not wait until all parts of the program are developed
- The state can be reviewing one program element as you continue to develop the others or conduct your sampling

Program Implementation Procedures

POTW must develop and implement procedures to ensure compliance with pretreatment requirements, including

- Identifying and locating all IUs subject to the pretreatment program in your service area;
- Identifying the character and volume of pollutants contributed by users;
- Notifying users of applicable pretreatment standards and requirements;
- Issuing permits to IUs
- Receiving and analyzing reports from IUs;
- Sampling and analyzing IU discharges;
- Evaluating the need for IU slug discharge control plans;
- Investigating instances of noncompliance; and
- Complying with public participation requirements.

Industrial Waste Survey

- Identify IUs and SIUs
  - Types of resources consulted in compiling a master list are the following:
    - Water and sewer service billing records
    - Applications for sewer service
    - Local telephone directories
    - Chamber of Commerce and local business directories
    - Business license records
    - POTW and wastewater collection personnel and field observations
    - Business associations
    - The Internet
- Once the IUs are identified, the POTW must classify them to determine whether pretreatment standards and requirements apply
- Industries (and some commercial facilities) must complete a survey
- POTW must prepare, update, and submit an Industrial Waste Survey to the Approval Authority including a list of all SIUs and Categorical Industrial Users (CIUs)

Significant Industrial User (SIU) [40 CFR 403.3(v)] (1)

- All users subject to categorical pretreatment standards under 40 CFR 403.6 and 40 CFR chapter I, subchapter N, except those designated as NSCIUs;
- any other IU that discharges an average of 25,000 gpd or more of process wastewater to the POTW (excluding sanitary, noncontact cooling, and boiler blowdown wastewater);
- contributes a process wastestream that makes up 5 percent or more of the average dry-weather hydraulic or organic capacity of the POTW treatment plant;
- or is designated as such by the POTW on the basis that the IU has a reasonable potential for adversely affecting the POTW's operation or for violating any pretreatment standard or requirement [in accordance with 40 CFR 403.8(f)(6)].

CHAMBERSBURG REGIONAL SEWER SYSTEM
WASTEWATER SURVEY FOR NON-RESIDENTIAL ESTABLISHMENTS

PART A - GENERAL INFORMATION

A.1. Company name, physical and mailing address:

_____
_____
_____
_____

Telephone No. _____ Fax No._____

A.2. Name, title, and contact information (including telephone number and email address) of person authorized to represent this company in official dealings concerning its wastewater discharge to the sewer:

_____
_____
_____

A.3. Alternate person(s) to contact concerning information provided herein:

_____
_____
_____

A.4. Identify the type of business conducted (machine shop, wire manufacturing, printing, etc.):

_____

A.5. Provide a brief description of the manufacturing, production, and/or service(s) at this facility:

_____
_____
_____

A.6. Provide Standard Industrial Classification Number(s) SIC Codes and/or North American Industry Classification System Numbers (NAICS) for this facility (if available):

_____ _____ _____ _____ SIC Codes
_____ _____ _____ _____ NAICS Codes

A.7. This facility generates the following types of wastes (check all that apply):

		Avg. GPD		
[ ]	Domestic waste	_____	[ ] estimated	[ ] measured
[ ]	Cooling water, non-contact	_____	[ ] estimated	[ ] measured
[ ]	Boiler/Tower blowdown	_____	[ ] estimated	[ ] measured
[ ]	Cooling water, contact	_____	[ ] estimated	[ ] measured
[ ]	Process water or waste	_____	[ ] estimated	[ ] measured
[ ]	Equipment/Facility washdown	_____	[ ] estimated	[ ] measured
[ ]	Air Pollution control unit	_____	[ ] estimated	[ ] measured
[ ]	Stormwater runoff to sanitary sewer	_____	[ ] estimated	[ ] measured
[ ]	Other (describe)	_____	[ ] estimated	[ ] measured
	Total Estimated Discharge	_____		

A.8. Wastes are discharged to (check all that apply):

[ ] Sanitary sewer [ ] Ground water, e.g. septic tank
[ ] Storm sewer [ ] Waste haulers
[ ] Surface water [ ] Other (describe)_____

Provide name and address of waste hauler(s), if used:

_____
_____

A.9. Does the facility have floor drains that tie into the sanitary sewer system? [ ] yes [ ] no

If yes, specify locations, drain sizes, and floor drain use. Also, indicate protective measures have been taken to prevent the discharge of chemical spills or leaks to the sanitary sewer system through these drains. Provide separate sheets as necessary.

_____
_____
_____
_____
_____

A.10. Is a Spill Prevention Control and Countermeasure Plan prepared for the facility? [ ] yes [ ] no

Note: If you did not check any of the items listed in A.7 or A.8 above, no further sections need to be completed. If any items in A.7 or A.8 were checked, complete the remainder of this survey.

A.11. Attach a scaled drawing, if available, or sketch of the facility showing locations of all sewers. Assign a sequential reference number to each sewer starting with No. 1. Also, show location of possible sampling points for processed wastewater. For reference and field orientation, buildings, streets, alleys, and other prominent physical structures should be identified.

A.12. By reference number, list below size, location, and flow of each sewer shown in A-11. (Attach additional sheet if needed.):

Ref. No.	Sewer Size (in.)	Discharge Point/ Sewer Connection Location	Type of Waste (See A.7)	Avg. Flow (gpd)

A.13. Describe location of possible sample point(s): _____
_____

A.14. Is industrial waste segregated from or combined with domestic waste?
[ ] segregated [ ] combined
If combined, with which wastes? _____

A.15. Is wastewater discharge to the sewer system continuously metered? [ ] yes [ ] no
If yes, describe the metering facilities: _____
_____

PART B - FACILITY OPERATION CHARACTERISTICS

B.1. Shifts worked at facility:

Sun	_____	Thur	_____
Mon	_____	Fri	_____
Tues	_____	Sat	_____
Wed	_____		

B.2. Average number of employees at the facility: _____

Note: The following information in this section must be completed for each product line.

B.3. Principal product produced: _____

B.4. List all materials, including industrial process chemicals, chemical additives and catalysts, water treatment chemicals, and cleaning agents (other than household type) stored or used at the facility. (Attach additional sheets if necessary):

Material	Quantity (indicate units)	Use(s)
_____	_____	_____
_____	_____	_____
_____	_____	_____

B.5. Raw materials and process additives used: _____

_____

B.6. Production process is: [ ] Batch [ ] Continuous [ ] Both
_____ % batch_____% continuous If batch, number of batches per 24-hour day: _____

B.7. Hours of operation: _____ a.m. to _____ p.m. OR [ ] continuous

B.8. Is production subject to seasonal variation? [ ] yes [ ] no
If yes, briefly describe seasonal production cycle: _____

_____

B.9. Are any process changes or expansions planned during the next three (3) years?
[ ] yes [ ] no

If yes, attach a separate sheet describing the nature of planned changes or expansions.

B.10. List sources of water (suppliers, wells, or other sources, the names on the water bills and account numbers):

_____

_____

_____

B.11. Are radioactive materials used in your operation? [ ] yes [ ] no
If yes, specify _____

PART C - WASTEWATER INFORMATION

C.1. If your facility employs processes in any of the industrial categories or business activities listed below and any of these processes generate wastewater or waste sludge, place a check beside the category or business activity (check all that apply):

Industrial Categories:

[ ]	Adhesives	[ ]	Aluminum Forming	[ ]	Auto/Other Laundries
[ ]	Battery Mfg	[ ]	Coal Mining	[ ]	Coil Coating
[ ]	Copper Forming	[ ]	Electric/Electronic Components	[ ]	Electroplating
[ ]	Explosives Mfg	[ ]	Foundries	[ ]	Gum/Wood Chemicals
[ ]	Inorganic Chemicals	[ ]	Iron/Steel	[ ]	Mechanical Products
[ ]	Nonferrous Metals	[ ]	Leather Tanning/Finishing	[ ]	Ore Mining
[ ]	Organic Chemicals	[ ]	Paint/Ink	[ ]	Pesticides
[ ]	Petroleum Refining	[ ]	Photographic Supplies	[ ]	Pharmaceuticals
[ ]	Plastics Processing	[ ]	Plastic/Synthetic Materials	[ ]	Porcelain Enamel
[ ]	Printing/Publishing	[ ]	Pump/Paper	[ ]	Rubber
[ ]	Soaps/Detergents	[ ]	Steam Electric	[ ]	Textile Mills
[ ]	Timber	[ ]	Machine Mfg	[ ]	Industrial Laundry
[ ]	Industrial Waste Treatment/Disposal				

C.2. Is the facility regulated by EPA Categorical Pretreatment Standards?

[ ] yes [ ] no [ ] don't know

If yes, indicate which standards apply: _____

_____

If EPA Categorical Pretreatment Standards apply, please include the applicable parameters and limits. Estimates may be used for new discharges.

_____

_____

_____

Do discharge(s) comply with these standards? [ ] yes [ ] no [ ] don't know

C.3. Priority Pollutants

Are any substances listed on the attached Table of Priority Pollutants currently present or expected to be present at the facility in a form discharging to the sewer? If yes, list the substances and concentrations/expected concentrations of the pollutants. If testing has been conducted, report the results/summary of results (attach sheet if needed). If no, put N/A.

_____

_____

_____

_____

C.4. Does this facility keep a continuous record of wastewater pH? [ ] yes [ ] no

C.5. Does this facility keep a continuous record of wastewater discharge volume? [ ] yes [ ] no

C.6. Is there a sampling manhole on the industrial waste discharge line or any other wastewater discharge line into the sanitary sewer? [ ] yes [ ] no

If yes, please indicate its location: _____

C.7. Conventional and Other Pollutants

Are other pollutants (i.e. biochemical oxygen demand, suspended solids, total solids, pH, temperature, oil and grease, Total Kjeldahl Nitrogen, Nitrate-Nitrite Nitrogen, ammonia, phosphorus, etc.) expected to be at levels different from that in domestic wastewater? If yes, list the substances and **submit laboratory analysis showing the expected concentrations of pollutants to be discharged. If testing has been conducted within one year, report the results or a summary of results.**

_____

_____

_____

_____

C.8. If pretreatment of waste(s) is provided, please list treatment devices and/or processes and provide a schematic drawing showing waste streams and pretreatment. In the schematic flow diagram show all water sources and wastewater discharges. The diagram should include a water balance. The schematic should also identify the industrial process steps.

No pretreatment is provided [ ] Schematic is attached [ ]

C.9. Hazardous Waste Reporting

Does the facility discharge to the sewer wastes which, if otherwise disposed of, would be classified as Hazardous Wastes under 40 CFR Part 261?

[ ] yes [ ] no

Please note the following information on these wastes:

Name of Waste	EPA Hazardous Waste No.	Type of Discharge (batch, continuous)	Quantity Discharged (kilograms/month)

PART D - OTHER WASTES

D.1. Are liquid wastes or sludge from the facility disposed of by means other than discharge to the sewer system?

[ ] yes [ ] no

If "no," skip remainder of Section D. If "yes," complete section below.

These wastes may best be described as:

		Estimated Quantities (indicate units)
[ ]	Acids and Alkalis	
[ ]	Heavy Metal Sludge	
[ ]	Inks/Dyes	
[ ]	Oil and Grease	
[ ]	Organic Compounds	
[ ]	Paints	
[ ]	Pesticides	
[ ]	Plating Wastes	
[ ]	Pretreatment Sludge	
[ ]	Solvent/Thinner	
[ ]	Other Hazardous Wastes (Specify):	
[ ]	Other Wastes (Specify):	

PART E - OTHER ENVIRONMENTAL PERMITS

E.1 List other environmental permits held by the Company that relate to this facility.

CERTIFICATION

The information contained in this survey is familiar to me and to the best of my knowledge and belief; such information is true, complete, and accurate.

NAME (type or print) _____

TITLE _____

_____

Signature of Official

_____

Date

Note to Signing Official: In accordance with Title 40 of the Code of Federal Regulations Part 403 Section 403.14, information and data provided in this questionnaire which identifies the nature and frequency of discharge shall be available to the public without restriction. Requests for confidential treatment of other information shall be governed by procedures specified in 40 CFR Part 2. Should an Industrial Waste Permit be required for your facility, the information in this questionnaire will be used to issue the permit.

Issue Permits to SIUs and some IUs

Permits (control mechanism) must be enforceable and contain, at a minimum, the following conditions:

- Permit duration (not to exceed 5 years)
- A statement of non-transferabililty (unless outlined provisions are met)
- Effluent limits, including BMPs, that are based on applicable standards
- Self-monitoring, sampling, reporting, notification, and record-keeping requirements
- An identification of the pollutants to be monitored
- Process for seeking a waiver for a pollutant neither present nor expected to be present or specific waived pollutant with control mechanism
- Sampling location, sampling frequency, and sample type
- Enforcement - applicable civil and criminal liability, penalties, violations
- Compliance schedule (where appropriate)
- Slug Discharge Control Plan requirement, if applicable.

PART 1 - DISCHARGE LIMITATIONS

A. Unauthorized Discharges

The Authority Pretreatment resolution establishes prohibitions on discharges, which prohibitions are hereby incorporated by reference. In addition, Part 5, Section I of this Permit establishes prohibited discharges. Any prohibited discharge or other unauthorized discharge, whether accidental or deliberate requires a report be filed with the Authority (See Part 3, Section C).

B. Limitations On Specific Pollutants

The following limitations apply to all discharges, except as may be provided in Part 4 Special Conditions:

LIMITS TABLE	
POLLUTANT	**MAXIMUM DAILY CONCENTRATION (mg/L)**
BOD5	200
TOTAL SUSPENDED SOLIDS	325
HEXANE EXTRACTABLE MATERIAL (USEPA Method 1664, Rev. A)	100.0
AMMONIA	25
ARSENIC	0.55
CADMIUM	0.046
CHROMIUM	1.33
COPPER	0.43
LEAD	0.62
METHYLENE CHLORIDE	5.0
MERCURY	0.011
MOLYBDENUM	0.45
NICKEL	0.77
PHOSPHORUS (TOTAL)	8.0
SELENIUM	0.59
SILVER	0.62
TOTAL PHENOLS	0.80
ZINC	1.39
CYANIDE	0.93
CHLORINE (Cl_2)	1.5

Modifications to these standard limitations on specific pollutants may be contained in Part 4 Special Conditions.

See Part 5 Section I Prohibited Discharges for other limitations, including pH, and additional prohibited discharges.

Dilution of a discharge with potable or clean process water in order to attain the required concentrations is specifically prohibited.

C. Discharge Point

Industrial waste may only be discharged at outfall 001 identified herein.
- NORTHEAST SIDE OF PROPERTY, 10" SEWER LINE

D. Flow Restrictions

The rate of discharge is limited as follows:	Maximum Daily Flow	Maximum Flow Rate
	330,000 gpd	225 gpm

PART 2 - MONITORING REQUIREMENTS

A. Sampling Frequency and Type

Sampling shall take place at: Discharge lateral

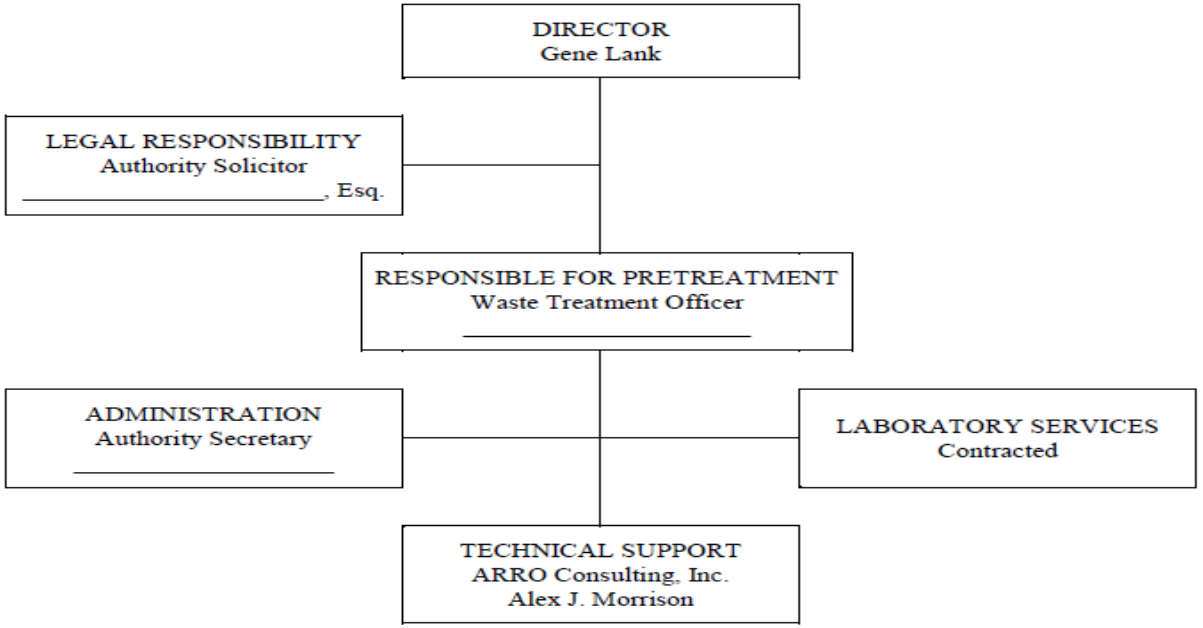
The following table presents the minimum requirements for monitoring the discharge. Additional monitoring requirements may be found in Part 4 Special Conditions.

DISCHARGE PARAMETER	MINIMUM FREQUENCY*	SAMPLE TYPE**
BOD5	QUARTERLY	COMPOSITE
TOTAL SUSPENDED SOLIDS	QUARTERLY	COMPOSITE
HEXANE EXTRACTABLE MATERIAL (USEPA Method 1664, Rev. A)	1 EVERY 6 MONTHS	GRAB
AMMONIA	QUARTERLY	COMPOSITE
ARSENIC	1 EVERY 6 MONTHS	COMPOSITE
CADMIUM	1 EVERY 6 MONTHS	COMPOSITE
CHROMIUM	1 EVERY 6 MONTHS	COMPOSITE
COPPER	1 EVERY 6 MONTHS	COMPOSITE
LEAD	1 EVERY 6 MONTHS	COMPOSITE
METHYLENE CHLORIDE	1 EVERY 6 MONTHS	COMPOSITE
MERCURY	1 EVERY 6 MONTHS	COMPOSITE
MOLYBDENUM	1 EVERY 6 MONTHS	COMPOSITE
NICKEL	1 EVERY 6 MONTHS	COMPOSITE
PHOSPHORUS (TOTAL)	1 EVERY 6 MONTHS	COMPOSITE
SELENIUM	1 EVERY 6 MONTHS	COMPOSITE
SILVER	1 EVERY 6 MONTHS	COMPOSITE
TOTAL PHENOLS	1 EVERY 6 MONTHS	GRAB
ZINC	1 EVERY 6 MONTHS	COMPOSITE
CYANIDE	1 EVERY 6 MONTHS	GRAB
ALL EPA PRIORITY POLLUTANTS	YEARLY	AS REQUIRED
FLOW***	DAILY	METERED
pH****	DAILY	GRAB
CHLORINE (Cl_2)	DAILY	GRAB

Program Organization, Costs, and Revenue Resources

- Personnel Org Chart
- Equipment
- Financing sources
- Cost recovery – surcharges, application fees
- Funding - The POTW must have sufficient resources and qualified personnel to carry out the authorities and procedures specified in its approved pretreatment program.

Organizational Chart for Implementation & Enforcement



Waste Treatment Officer

Notifies violators by letter and through notices of violation (NOV) and signs Administrative Orders.

Authority Secretary

Prepares letters for Waste Treatment Officer.

Consulting Engineer

Assists with program development, ordinance revisions, and development of local limits.

Authority Solicitor

Carries out all legal responsibilities including ordinance revisions and litigation.

Compliance Monitoring Program

- Inspections of IUs – at least once per year
  - Review current data on the IU
  - Confirm or determine the IU's compliance status
  - Determine completeness/accuracy of IU's performance/compliance records
  - Assess adequacy of the IU's self-monitoring and reporting requirements
  - Assess adequacy of monitoring locations and IU's sampling techniques
  - Assess adequacy of imposed limitations and pollutants of concern
  - Develop a rapport with the IU
  - Evaluate O&M and overall performance of IU's pretreatment system
  - Assess the potential for spills and slug discharges
  - Evaluate the effectiveness of slug discharge control plan
  - Reveal issues requiring action
  - Identify noncompliance needing resolution
  - Suggest pollution prevention opportunities
  - Obtain data to support enforcement actions
- Sampling IUs – at least once per year

BOROUGH OF CHAMBERSBURG INDUSTRIAL PRETREATMENT PROGRAM

INSPECTION REPORT

Date:	10/18/2016
Facility:	[redacted]
Facility Address:	[redacted] Chambersburg, PA 17201
Municipality:	Borough of Chambersburg
Representatives of Facility:	[redacted]

Inspectors:	Travis Amsley, Borough of Chambersburg Stephanie Clay, ARRO
Arrival Time:	2:00 PM
Departure Time:	2:55 PM

Nature of Facility:	Food Processing
Age of Facility	15 Years
No. of Employees:	450 (approximately 40 are maintenance) – running more product and will hire 105 employees over the next few months.
Water Source(s):	Public (Chambersburg)
Uses of Water:	Process and domestic
Is there an annual shutdown?	No, 2 shifts processing / 1 shift cleanup (no weekends) 5 days/wk. Food service lines are 2 shifts and one cleanup. Portion control lines are 4 shifts (2-2-3 schedule).
Is there variability in operations?	Operations growing. There is an 18-month schedule to install 15 new production lines. One new line is already running. 0.5 billion pounds production now increasing to 0.75 billion pounds.
When is peak production?	N/A

INSPECTION REPORT

Is pretreatment in place?	Yes, DAF system. Uses same chemicals. New DAF is in operation by World Water Works. BOD is lower. Adding the DAF from the oil farm area and will operate in parallel. Runs on 1st shift and idle on 2nd. Operators on 1st and 3rd shifts.
What wastes are removed?	Food waste from production, Solids from wwtp, hazardous waste. Capture first rinse which is hauled away by WAI and land applied (6,000-12,000 gpd).
Quality of water to sewer?	Pretreated
Is Domestic water segregated from process water?	Yes
Where does waste enters the sanitary sewer system?	Southeast corner of building
Is stormwater isolated from the sanitary sewer?	Yes

How is process waste generated and contaminated?

From cleaning process equipment and line changeovers.

Are steps taken to minimize solids and other pollutants to wastewater? Yes

Are hazardous materials/waste stored properly? Yes. Hazardous materials are stored in a containment room with no floor drains and a full spill kit. Cycle Chem hauls Hazardous waste (mustard oil, inks, flammable flavors, silver nitrate from lab). Spirit Services for waste oil, Martins Custom Farming for food waste, Stericycle for biowaste, and Safety Kleen for non-hazardous parts washers.

Does the Facility have a Spill Prevention Plan?	Yes. An updated copy should be submitted to the Borough/Travis.
Is a Facility map/drawing available?	Yes.
Does the map/drawing show drains & waste pipes?	Yes.

Notes:

1. One (1) copper violation this year from August. Ventura retested in October on incoming and effluent. Roger investigated what was happening in maintenance and production that day and there was no reason found for the high copper violation.
2. Flammable lockers in the spice room area. All chemicals are in containment in the spice room.
3. Ventura will request more flow and BOD loading. Goal is 3,500 lb/day. Current is 1,750 lb/day. Samples will be collected from hauled loads to get BOD loading and send a request to the Borough on actual BOD loading request.

Industrial User Example

- Food Processing Wastewater
  - Process cleaning, equipment washdown, product changes, and sanitation
  - Boiler Blowdown
  - Cooling Water
- Sanitary Wastewater – segregated from process
  - Lockers Rooms and Bathrooms
  - Cafeteria

Industrial Waste Pretreatment

- Discharge Regulated by Local Ordinance and site-specific industrial wastewater discharge permit
- Most Food Processing Facilities Discharge to Publicly Owned Treatment Works (POTW)
- Many industries have pre-treatment systems

Industrial Waste Pretreatment

- Case Study – Food Processing Wastewater
- Wastewater Issues
  - Excessive Biochemical Oxygen demand (BOD)
    > 2,000 mg/l
  - Excessive Total Suspended Solids (TSS)
  - Flow Spikes
  - Low pH
  - Oil and Grease (FOG)
- Violate POTW industrial wastewater discharge permit limits. NOV issued.

Discharge Permit Typical Limits for Food Process Wastewater

- Maximum Daily Flow
- pH between 5.5 – 10.5
- Biochemical Oxygen Demand (BOD) 250 - 1,000 mg/l
- Chemical Oxygen Demand (COD)
- Oil and Grease (O&G) – 100 mg/l
- Total Suspended Solids (TSS) 250 – 1,000 mg/l
- Phosphorous
- Nitrogen
- Maximum Daily Flow

Prohibited Discharges (Flammables, Explosives)

Slug Loads

What Do I Need To Look For?

- Liquid ingredients discharging to drain:
  - Oil
  - Raw Materials
  - Hazardous Materials
- Suspended Solids – collected or discharged to drain
- Chemical leaks and spills
  - Sanitation/cleaning chemicals
  - Water treatment chemicals, etc.

Flow, BOD, Suspended Solids, and Oil & Grease

Sources: organics/sugar, food solids, raw materials, cleaning chemicals

Photo: Inokat.eu

Process Wastewater

The plant discharges process wastewater to the on-site WWTP.

The purpose of the pretreatment system is to reduce the BOD_5 and TSS concentrations to levels below 250 mg/L and to prevent surges in BOD_5 concentrations and flow rates, i.e., equalize the discharge flow, as well as improve control of pH and TSS levels in the discharge to the sewer.

The treated wastewater is discharged to the municipal treatment plant.

Ensure the IU Knows

- Sampling requirements per permit (type and frequency)
- When to submit wastewater reports to POTW
- Pay wastewater fees per Fee Structure and Surcharges
- Accidental Discharge Procedures – Reporting Procedures
- Unannounced Sewer Authority Inspections will occur
- When to renew the permit

9.0 Accidental or Slug Discharge

9.1 The Permittee shall implement and maintain a Slug/Spill Discharge Control Plan that, at a minimum, includes the following:

- 9.1.1 Description of discharge practices, including non-routine batch discharges.
- 9.1.2 Description of stored chemicals.
- 9.1.3 Procedures for immediately notifying the POTW of slug discharges, including any discharge that would violate a prohibition under 40 CFR 403.5(b), with procedures for follow-up notification within five (5) days.
- 9.1.4 Procedures to prevent adverse impact from accidental spills, including inspection and maintenance of storage areas, handling and transfer of materials, loading and unloading operations, control of plant site run-off, worker training, building of containment structures or equipment, measures for containing toxic organic pollutants (including solvents), and/or measures and equipment for emergency response.

Wastewater "Slug" Reporting

A wastewater "slug" is defined as a non-routine batch discharge to the sewer in larger than normal quantities which could cause a violation of the discharge permit. This does NOT include normal batch or process discharges.

Contact the pretreatment coordinator/wastewater treatment plant operator/POTW to report slug discharges.

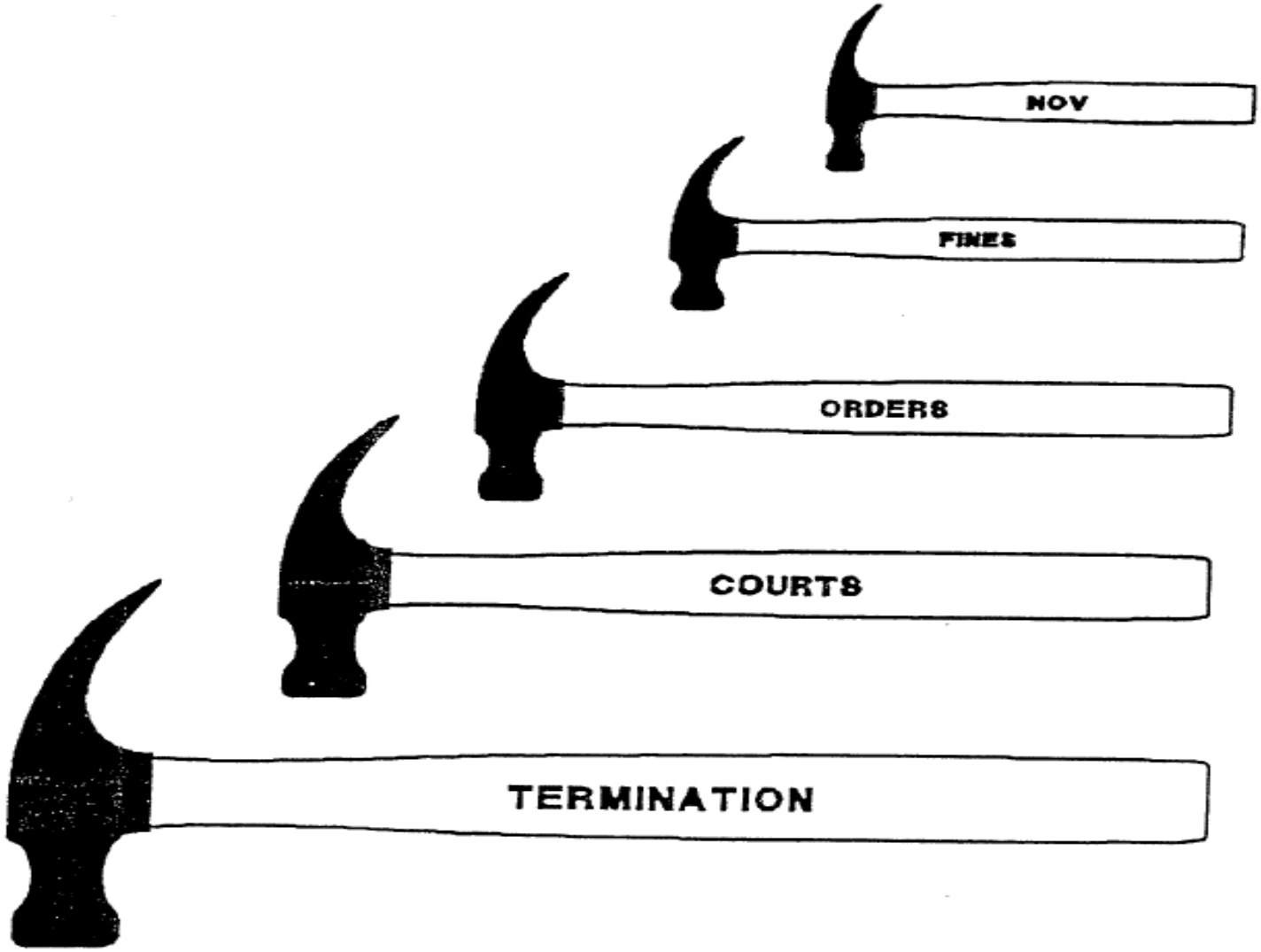
Enforcement Response Plan

- Contains detailed procedures how the POTW will investigate and respond to instances of IU non-compliance in accordance with the Federal and State Regulations
- Describe types of escalating responses the POTW will take in response to all types of IU violations and time period actions will take place
- Identify the officials responsible
- Reflect POTWs responsibility to enforce all pretreatment requirements and standards

Potential Escalated Actions Based On:

- Nature of the violation
  - Pretreatment standards
  - Reporting (late or deficient)
  - Compliance schedules
- Magnitude of the violation
- Duration of the violation Frequency of the violation (isolated or recurring)
- (Potential) effect of the violation (e.g., interference, pass through, or POTW worker safety
- Economic benefit gained by the violation
- Attitude of the violator

Enforcement Responses



Enforcement Response Procedures
A. Sampling, Monitoring, and Reporting

Non-Compliance	Circumstances	Range of Responses
1. Failure to sample, monitor, report (routine reports, BNRs, etc.) or notify	Isolated or infrequent	Phone call within 15 days requiring a report to be submitted within 10 days. If no report received within 10 days, notice of violation (NOV) sent within 10 days requiring report submission immediately. (If no response is received within 30 days of original due date, permittee is in SNC.) Within 10 days after SNC status, notify permittee of SNC status and require report submission immediately. Administrative Order (AO) issued within 90 days if no response is received after 60 days (from original due date) have passed.

ENFORCEMENT RESPONSE PLAN

PART I

UNAUTHORIZED DISCHARGES (NO PERMIT OR EXPIRED PERMIT)

NON-COMPLIANCE		NATURE OF VIOLATION		ENFORCEMENT RESPONSES (1)	(2) PENALTY
A.	Unpermitted discharge	1.	IU unaware of requirement; no harm to the POTW or environment	NOV	(4)
	(Violators will be issued a Sewer Use Permit application to be completed)	2.	IU unaware of requirement; harm to the POTW or environment	NOV	$100.00
				AO	$500.00
		3.	Failure to comply continues after notice by POTW	NOV	$500.00
				SCH	(3)
				CIVIL	(3)
				CRIMINAL	(3)
				TERMINATE	(3)
B.	Non-permitted discharge (failure to renew)	1.	IU has not submitted application within 10 days of due date.	NOV	$25.00
		2.	Failure to renew permit refers back to "Unpermitted discharge"		

PART II

DISCHARGE LIMIT AND BEST MANAGEMENT PRACTICE VIOLATION

NON-COMPLIANCE		NATURE OF VIOLATION	ENFORCEMENT RESPONSES (1)	(2) PENALTY
A. Exceedance of local or federal standard limits; or violation of best management practices	1.	Isolated	NOV	(4)
	2.	Isolated, significant (no harm)	NOV	$50.00
	3.	Recurring of A.(1) or A.(2) - IU working to determine source of violation	NOV	$50.00
			AO	$100.00
	4.	Recurring of A.(1) or A.(2) - IU not showing progress towards correcting violation	NOV	$250.00
			AO	$500.00
			SCH	$1,000.00
	5.	Isolated, harm to POTW or environment	NOV	$250.00
			AO	$500.00
			SCH	(3)
			CIVIL	(3)
	6.	Recurring, harm to POTW or environment	NOV	$500.00
			AO	$1,000.00
			SCH	(3)
			CIVIL	(3)
			CRIMINAL	(3)
			TERMINATE	(3)

Significant Non-Compliance (SNC)

An IU is in SNC if its violation meets one or more of the following criteria:

(A) Chronic violations of wastewater discharge limits, defined here as those in which 66% or more of all the measurements taken during a 6-month period exceed (by any magnitude) a numeric pretreatment standard or requirement, including instantaneous limits, as defined by 40 CFR 403.3(l)

(B) Technical Review Criteria (TRC) violations, defined here as those in which 33% or more of all of the measurements for each pollutant parameter taken during a 6-month period equal or exceed the product of the numeric pre-treatment standard or requirement including instantaneous limits, as defined by 40 CFR 403.3(l) multiplied by the applicable TRC (TRC = 1.4 for BOD5, TSS, fats, oil, and grease; and 1.2 for all other pollutants except pH)

(C) Any other violation of a pretreatment Standard or Requirement as defined at 40 CFR 403.3(1) (daily maximum, long-term average, instantaneous limit, or narrative standard) 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)

SNC continued

(D) Any discharge of a pollutant that has caused imminent endangerment to human health, welfare or to the environment or has resulted in the POTW's exercise of its emergency authority under 40 CFR 403.8(f)(1)(vi)(B) of this section to halt or prevent such a discharge

(E) Failure to meet, within 90 days after the 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

(H) Any other violation or group of violations, which could include a violation of BMPs, that the POTW determines will adversely affect the operation or implementation of the local pretreatment program

Is the National Pretreatment Program a Success or Failure?

- Pretreatment Program reduces the introduction of toxic pollutants to sewer systems and to the waters of the U.S.
- Reduces the effects of pollution on human health and the environment
- Submit Annual/Semi-Annual Pretreatment Report to the state
- State conducts Pretreatment Program Audits

Resources

- EPA and TDEC Pretreatment Program staff are a significant resource of information
- Numerous guidance documents developed by EPA and states
- Events, training and publications are available on the EPA and state websites

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

https://www.tn.gov/environment/permit-permits/water-permits1/npdes-permits1/npdes-pretreatment-program.html

https://www.mtas.tennessee.edu/industrial-pretreatment

It takes a village…POTW staff, lab, EPA and State Agency …consultant

Remember it is an ongoing process!

THANK YOU!!!

GO VOLS!!

WK DICKSON
community infrastructure consultants