

Working Together on a Pretreatment Program Inspection

Elizabeth Wick, P.E., Ohio EPA, NWDO

Todd Teman, Superintendent, City of Delphos

Pretreatment Overview

- Regulates nondomestic users who discharge pollutants to the sanitary sewer
- Must administer a Pretreatment Program if:
 - Design flow greater than 5MGD and receives pollutants from industrial users that passthrough or interfere with POTW operations
 - Design flow less than 5MGD if the director finds a program is necessary to prevent interference and passthrough.

Pretreatment Overview

- POTW's pretreatment program must meet the criteria in the rules (OAC 3745-3)
- Shall be administered by the POTW to ensure compliance by industrial users (IUs)
- Included as an enforceable condition of POTW's NPDES permit

Pretreatment Program Goals

- Prevent interference of POTW processes
- Prevent pass through of pollutants
- Improve opportunities to recycle and reclaim wastewaters and biosolids



NOTICE: "Class B sewage sludge has been applied to this site"

City of Perrysburg
Water Pollution Control Division
Gary Haydel
419-872-8040

Pretreatment Terms

- Approval Authority – Ohio EPA
- Control Authority (CA) – POTW
- Industrial User (IU)
- Significant IU = flow 25,000gpd or greater, categorical or potential to impact POTW processes
- Control Mechanism – permit issued by CA regulating discharge

Pretreatment Programs

- Ohio EPA delegated authority from U.S. EPA
- Programs are approved by Ohio EPA
- POTW personnel implement requirements of the General Pretreatment Regulations, the program and the NPDES permit
- As pretreatment needs change, programs can change

Pretreatment Programs

- Pretreatment programs have several specific areas
 - Legal authority
 - Local limits
 - Industrial user compliance and enforcement
 - Public participation
 - Data management
 - Resources

Pretreatment inspections

- Three types of program inspections
 - Pretreatment Compliance Inspection (PCI)
 - Reconnaissance Inspection (RI)
 - Pretreatment Audit Inspection (PAI)

Inspection Goal

Identify deficiencies, problems, non compliance in implementing approved program

Verify information submitted in pretreatment annual report

Determine if any changes made to the program since last inspection

Pretreatment inspections

May be conducted in conjunction with other NPDES inspections

Approved programs inspected at least once per year

Rely heavily on file and record reviews

Sometimes include IU inspections

Pretreatment Compliance Inspection (PCI)

- Most common inspection of approved programs
- Evaluates day to day operations of program
- Review of Industrial User (IU) files
- Interview of Pretreatment Coordinator
- May include observing Pretreatment Coordinator conducting IU inspection

Pretreatment Compliance Inspection (PCI)

Checklist includes:

Cover page

Industrial User File Evaluation

Supplemental Data Review/Interview

Evaluation and Summary

Water Enforcement National Data Base
(WENDB) worksheet

Industrial User File Evaluation

Inspector reviews select IU files

Assess CA's compliance based on it's IU records

CA's proof that they are properly implementing program



Industrial User File Evaluation

- Documents problems/deficiencies with the files
- Notified IU of applicable categorization and requirements
- Issued adequate control mechanism
- Applied appropriate pretreatment standards
- Conducted sufficient compliance monitoring
- Taken appropriate enforcement action for violations

Supplemental Data Review/Interview

- Inspector interviews Pretreatment Coordinator
 - Any changes made to approved program since last inspection
 - Any changes needed
 - How new IUs are identified
 - How changes in discharges at existing IUs are identified



Supplemental Data Review/Interview

- Evaluation of Control Mechanism
 - Determine how many IUs are not covered
 - Number that were allowed to expire before being renewed
 - Number that were not issued within 180 days of expiring
 - How control mechanisms are renewed

Supplemental Data Review/Interview

- Application of Pretreatment Standards
 - CA must evaluate if SIUs need to develop slug discharge control plans
 - Discuss wastes that are hauled to the POTW and how applicable limits are applied

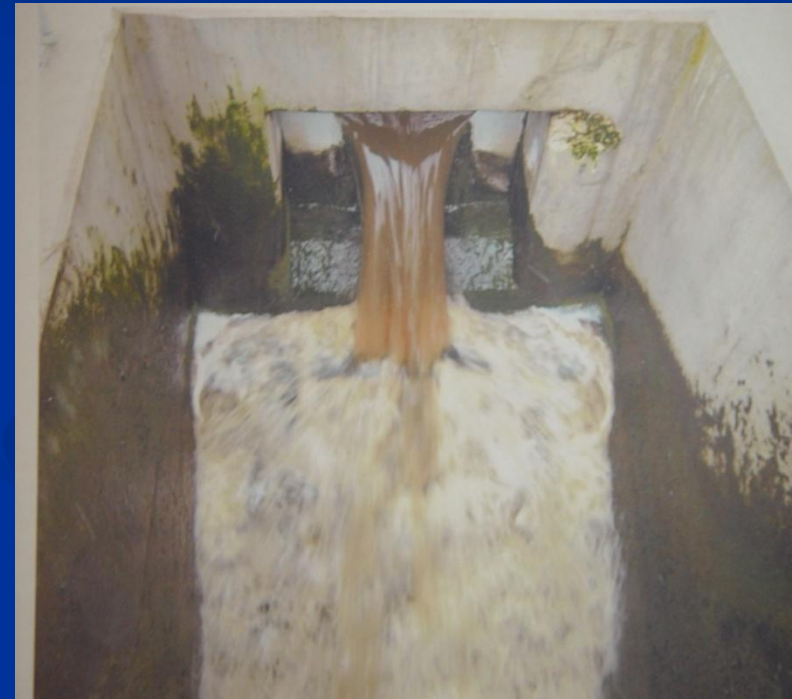


Supplemental Data Review/Interview

- Compliance Monitoring
 - Determine how many SIUs were not sampled or inspected in the past 12 months
 - Determine how many SIUs are in significant noncompliance

Supplemental Data Review/Interview

- Enforcement
 - Types of enforcement actions used during the past year
 - Interference, pass through, or other problems experienced in the past year
 - Annual publication of SNC list



Evaluation and Summary

- Summarizes interview
- Deficiencies and violations noted
- Separates required actions from recommended actions
- Discuss implementation problems with pretreatment coordinator
- Identify needed resources

Reconnaissance Inspection (RI)

- Intended to relieve small well run programs from a full scale inspection every year
- Conditions to qualify for an RI:
 - 50 or less SIUs
 - Program not in SNC/RNC for last two years
 - No active or pending enforcement action against POTW

Reconnaissance Inspection (RI)

- Conditions of an RI (cont)
 - No effluent metal violations at POTW
 - Sludge metal concentrations meet limits
 - Pretreatment Coordinator in position for at least two years
 - No more than two RI's in 5 year permit cycle
 - Can't be done during the first 3 years of program approval

Reconnaissance Inspection (RI)

- Checklist with a series of “yes/no” questions
- Yes answers further explained
- Ensures continued compliance of program
- Inspector provides technical support to POTW

Reconnaissance Inspection (RI)

- Any pending or planned program modifications
- Any changes in SIU list
- All inspections and sampling events completed
- Enforcement activities
- Instances of passthrough/interference, other issues

Pretreatment Audit

- More detailed than PCI or Recon
- Usually takes 2 days
- Must be conducted at least once during 5 year permit cycle
- Includes observation of Pretreatment Coordinator conducting an IU inspection

Pretreatment Audit

- Checklist includes:
 - Cover page
 - Industrial User File Evaluation
 - Data review/Interview/IU site visit
 - Findings
 - WENDB worksheet

Pretreatment Audit

- Industrial User File Evaluation
 - Control Mechanism content and application of limits
 - Statements of duration
 - Applicable limits
 - Notification requirements
 - Documentation of inspections and sampling events
 - Proper frequency of inspections and sampling
 - Documentation of enforcement activities
 - Violations identified and NOVs sent
 - Following Enforcement Response Plan

Pretreatment Audit

■ Interview

- Discuss pending or completed program modifications
- Multi-jurisdictional coverage
- Changes to SIUs
- Discuss why SIUs may not have control mechanisms
- Discuss how new SIUs are identified

Pretreatment Audit

■ Interview (cont)

- Contaminated groundwater/RCRA discharges
- Hauled waste – how controlled/limits applied
- Keeping current on rule changes
- Problems raised during local limit implementation
- Identify SIUs not inspected or sampled

Pretreatment Audit

- Interview (cont)
 - Identify sampling and analysis personnel
 - Discuss lab QA/QC methods
 - Evaluation method for slug discharge control plans
 - POTW operation problems related to IU discharges
 - Enforcement methods

Pretreatment Audit

- Interview (cont)
 - Management of confidential files
 - Data management systems/record retention
 - Public participation
 - Community issues (economics, politics) that affect pretreatment program
 - Resources – personnel, equipment

Pretreatment Audit

- Interview (cont)
 - Trends in historical POTW monitoring
 - Pollution prevention efforts



Pretreatment Audit

- Evaluation and Summary
 - Outlines required and recommended actions
 - Program modifications
 - Legal authority
 - IU characterization
 - Issuance of control mechanisms
 - Proper application of limits

Pretreatment Audit

- Evaluation and Summary
 - Adequate sampling and inspections
 - Resampling when violations discovered
 - Appropriate application of significant noncompliance (SNC)
 - Proper implementation of Enforcement Response Plan
 - Publishing list of IUs in SNC

Pretreatment Audit

- Evaluation and Summary (cont)
 - Effective data management
 - Adequate resources
 - Understanding of pollutants from all sources
 - Integration of pollution prevention

WENDB Data entry worksheet

- Water Enforcement National Data Base
- Form used to submit program data to U.S. EPA

WENDB AND RNC WORKSHEET
PCI/Audit/RI Checklist

FACILITY INFORMATION				
Name		Date of Inspection		
OH Number		NPDES Number		
I. WENDB DATA ENTRY WORKSHEET				
INSTRUCTIONS: Enter the data provided by the specific checklist questions that are referenced.				
	Data	Checklist Reference		PCS Code
		PCI	AUDIT	
Number of SIUs	-	Annual	Annual	SIUS
Number of CIUs	-	Annual	Annual	CIUS
Number of SIUs without Control Mechanisms	-	II.C.1	IID.1.a	NOCM
Number of SIUs not inspected or sampled	-	II.F.1.a	II.F.1.a	NOIN
Number of SIUs in SNC with standards or reporting	-			PSNC
Number of SIUs in SNC with self-monitoring	-			MSNC
Number of SIUs in SNC with self-monitoring and not inspected or sampled	-	II.E.2	II.F.1.d	SNIN
Date NPDES Permit modified to include pretreatment requirements (Audit)	-			
Technical Evaluation of Local Limits (Y/N) (Audit)	-			
Adoption of technically-based limits (Y/N) (Audit)	-			
II. RNC/SNC WORKSHEET				
INSTRUCTIONS: Place a check in the appropriate box on the left if the CA is found to be in RNC or SNC				
	RNC	Level	Reference	
			PCI	Audit
-	Failure to enforce against pass through and/or interference	I		
-	Failure to submit required reports within 30 days	I		
-	Failure to meet compliance schedule milestone date within 90 days	I		
-	Failure to issue/reissue control mechanisms to 90% of SIUs within 6 months	II	II.C.2.b	IID.1.b
-	Failure to inspect or sample 80% of SIUs within the last 12 months	II	II.E.1	II.F.1
-	Failure to enforce pretreatment standards and reporting requirements	II		I.C.1
-	Other (specify)	II		
SNC				
-	Control Authority in SNC for violation of any Level I criterion			
-	Control Authority in SNC for violation of two or more Level II criterion			

Industrial User Inspection

- EPA personnel observe the pretreatment coordinator
- Make recommendations on inspection methods and documentation



POTW Perspective

- Delphos WWTP has approved pretreatment program because it was deemed necessary by Director of OEPA (Flow < 5MGD)
 - Previously had passthrough and interference at POTW caused by IU discharges.
 - Predominant problems were with CBOD5 and TSS
- 4 Significant IU's and 6 Non-Significant IU's

Program Compliance

- Due to plant non-compliance and Directors Findings and Orders it was obviously necessary to re-evaluate our pretreatment program effectiveness.
 - Evaluate sampling procedures
 - Evaluate inspection procedures
 - Evaluate existing analytical data quality

Sampling Procedures

- When are you sampling, how often and is it scheduled or unscheduled?
- 24 hour vs. 8 hour composite samples
- Can the IU change their production levels during sampling to in turn provide non-representative discharge data?
- QA/QC with your sampling and holding procedures.
- Avoid situations for potential corruption of sample data

Inspection Procedures

- Have a thorough checklist to go through with your IU (perhaps provide it to them early so that it can be completed in its entirety).
- Inspect all areas of the facility – don't be afraid to ask what is behind that door or where that drain goes – they should know and show you.
- Always let them know that you want to assist them in their efforts to be compliant! Work together!
- Don't be afraid to ask OEPA to assist with an inspection (their presence can work to your benefit).

Inspection Checklist

- Hours and days of operation / # of employees
- Does their activity vary greatly during different shifts?
- Water usage rates?
- MSDS sheets on all chemicals and products used in their production
- Chemical storage procedures / spill prevention / slug load prevention
- Proper disposal of wastes that don't come to the POTW (Hauler information and ultimate disposal site)
- Don't be afraid to contact other existing facilities or POTW's for information and assistance.

Existing Analytical Data Quality

- If you use an outside lab, have them run QA/QC samples routinely
- Don't be afraid to ask to inspect their laboratory or ask if they routinely perform self-audits – ask for the results (they should be willing to share them with you).
- Evaluate data on a quarterly and annual basis – has it changed? Does it reflect changes in operation / production or pretreatment methods?

Resources

- Other pretreatment program communities – ask how they deal with situations, ask for copies of their inspection forms, ask how they surcharge IU's, ask how they deal with local limit implementation
- OEPA website – pretreatment and biosolids section
- OWEA / WEF websites and manuals
- OEPA Pretreatment personnel - talk to them regularly, don't be afraid ask questions!

Common Findings

- Lack of file organization – best organization has separate folders for:
 - Control mechanism
 - City sampling (including chain of custody sheets and analytical reports)
 - IU sampling (including chain of custody sheets and analytical reports)
 - NOVs and IU responses
 - Annual inspections
 - Misc. correspondence

Common Findings

- Control mechanisms that are expired
- Lack of inspection documentation
- Failure to resample after finding a violation

Inspection follow up

- Within 30 days, a letter is sent to city/village officials
- Inspection date, purpose, names of those involved
- Summary of findings and violations
- Recommended corrective actions with timeframe for completion
- Completed inspection checklist



Pointers

- Be honest. If you don't know the answer, say so
- Let us know what you want the Mayor to know
- Don't be afraid to ask the inspector questions
- Review the inspection report when you get it and let the inspector know if there are errors
- Let us know if you need more time to correct a deficiency
- Use your district EPA inspector as a resource

Significant Noncompliance

- Two or more significant violations of monthly average effluent limitations in a six-month period
- Based on technical review criteria
- Four violations of any magnitude (significant or insignificant) in a six month period
- Failure to meet a compliance schedule date within ninety days

Significant Noncompliance

- Applies to both majors and minors
- Reported on Quarterly Noncompliance Report
- U.S. EPA's watchlist
- Ohio EPA enforcement action
- Current focus on minor noncompliance

Elizabeth.Wick@epa.state.oh.us

419-373-3002

TTeman@cityofdelphos.com

419-692-0991