

2024 CSWEA-WI Pretreatment Seminar

Conducting Effective Industrial User Site Inspections

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Overview

Types and Purpose of Site Inspections

Site Inspection Coordination & Preparation

Conducting Site Inspections

Industry Specific Questions

Questions

Type and Purpose Of Site Inspections



Classification

- Identify new IU
- Gather info for permitting

Existing IU

- Annual SI of permitted IU
- IU upgrades/changes

Non-compliance

Discharge of
Concern/Upset

What Sites Should Be Inspected?



All POTWs are required to know what is being discharged.



■ Identify during IU Survey

- Discharge Process Waste
- Categorical Process
- High Water Use
- Food Manufacturing
- Specific Discharge Requirements
 - Phosphorus
 - Mercury
 - Metals
 - Chlorides

Scheduling Site Inspections



Unannounced inspections can be done to investigate a compliance issue.



■ Coordinate with Authorized Representative

- Who should attend?
 - Plant Manager/EHS Officer
 - Pretreatment System Operator
- Entry Requirements?
 - Government-Issued ID
 - Safety Video/Training
 - Protective Gear

■ Date and Time (or time window)

- Large industries – hours
- Small industries – less than an hour

■ Send a confirmation email

Be Prepared – What to Bring

- **Business cards**
- **Identification**
- **Personal Protective Equipment**
 - Steel toed boots
 - Hard hat
 - Eye/Ear protection
- **Remove jewelry**
- **Site Inspection Form + Site Map**
 - Fill out form with basic info



What if they deny entry?

- **Legal authority to site inspect in Sewer Use Ordinance**
 - Intergovernmental Agreements
- **Document**
 - Date & time
 - Reason for refusal
 - Name & title of person refusing entry
- **Contact Supervisor → Legal Counsel**
- **DO NOT discuss potential penalties**
 - Coercion!



“We need you to sign an NDA.”

- **Carefully review Confidentiality Agreements or NDA**
 - “may not share information without explicit permission”
- **In General – Don’t Sign!**
- **Request Supervisor/Legal Counsel Input**

NDA = Non-Disclosure Agreement



“That’s proprietary information.”

■ Understand the Basics

- Ordinance Language – Confidential Information Section
 - Industry needs to claim Confidential Information when submitting documents
 - Follow procedures for storing Confidential Information

■ USEPA Freedom of Information Act (FOIA)

- <https://www.ecfr.gov/current/title-40/part-2>



Opening Conference or Meeting



- **Sit down to talk first → then tour**
 - Manufacturing areas are loud
 - Make sure key IU staff are present
- **Explain why you are there**
 - Annual Site Inspection
 - Classification Inspection

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Essential Questions

1. Products produced
2. Raw materials
3. Process used to create product

Raw Material  Finished Product

4. Process waste hauled
5. Process waste discharged



Draw it out – Did I get this right?

Digging Deeper



- **Contact Information**
- **Production Start Date**
- **Number of Employees**
- **Hours of Operation and Shifts**
- **Sampling Manhole Location**
 - End of process
 - End of Pipe

Digging Deeper Continued



■ Spill Plan

- Chemical Safety Data Sheets
- Spill Containment
- Spill Potential
- Spill Kit Locations

■ Facility Clean-up

- Overnight
- End of Shift
- Weekends
- Quarterly? Semi-Annual? Annual?

Facility Walk-Through



Don't be afraid to slow down to fully understand the production process.



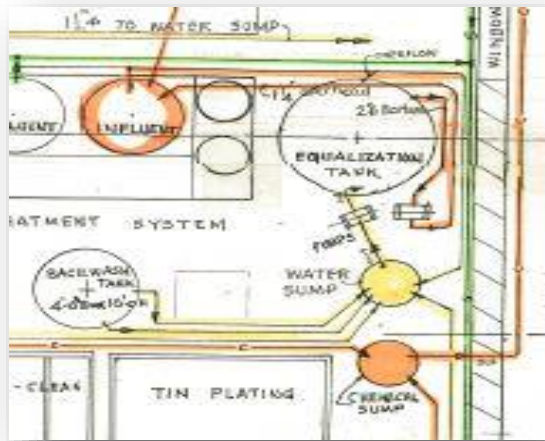
- **Visit Entire Facility**
 - Receiving to Shipping
 - Tour in order of manufacturing process
- **Take notes as you walk through**
 - Stop then write for safety
 - Ask for clarification
- **Look at areas where water is used**
 - Understand where used water is going
- **Scan facility for anything interesting**
 - Does anything look out of place or suspicious?

Document, Document, Document!

Obtain Site Maps

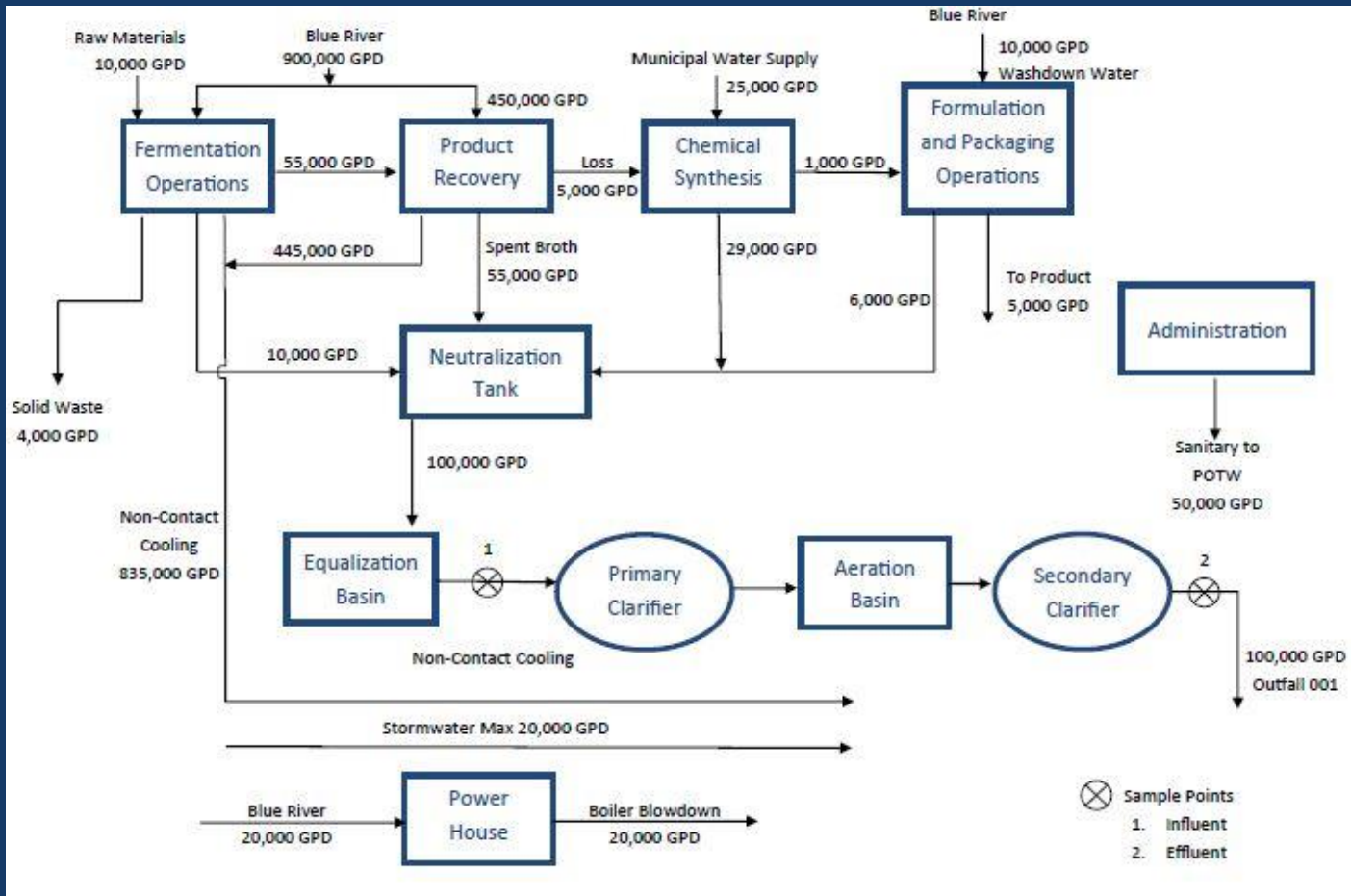


Fire escape maps
can be a great
alternative!



- **Site Piping Plan**
- **Process Flow Diagram**
- **Pretreatment Plan**
- **Water Information**
 - Usage
 - Disposal
 - Categorical vs. Non-Categorical Flows

Process Diagram



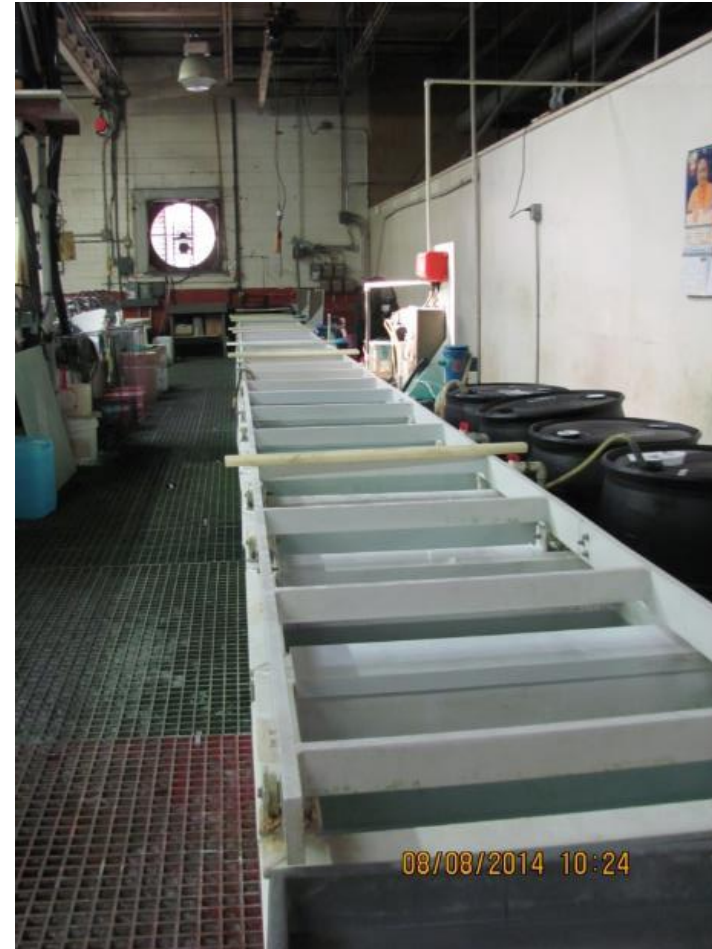
Hardest thing to get from IU.

Get confirmation of what you draw!

A picture is worth a thousand words

■ Ask if you can take photos

- Process
- Chemical labels
 - Ask for Safety Data Sheets
- Floor drains
- Location of sampling manhole



Chemical Storage

- **Floor drains**
 - Capped or Open?
- **Spill containment**
 - Properly sized
 - Double walled tanks?
- **Clean-up/Spill kits**
 - Locations
- **Spill plan**
 - Annual Training of Staff
 - Updated Every 2 Years

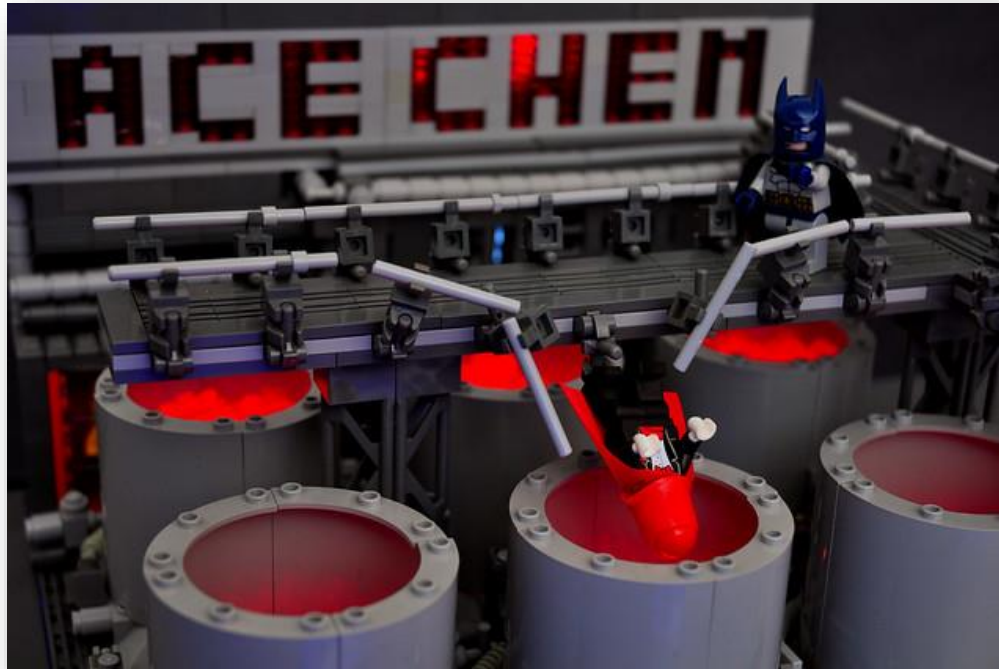


They should keep records of Spill Plan training – ask for a copy!



“All of our chemicals are environmentally friendly”

- Not always about the chemicals used
- What is cleaned off the part?



Pretreatment System

- **Is there a pretreatment system?**
 - “Can you show me how it works?”
 - Certified operator?
- **Batch or Continuous Discharge?**
 - Discharge rate
 - Size of batch
 - Frequency and Duration



Solid and Hazardous Waste

- **What is generated?**
- **Waste stream destination**
 - Disposal of waste
 - Any waste streams recycled?
- **How often?**
- **Ask to see hauling records**
- **Sludge from pretreatment system?**



Sampling

■ For unpermitted IUs:

- Sampling data?
- Where are samples taken?
- Frequency of data?
- 24-hour composite sampling
 - Exclude pH, cyanide, total phenols, FOG, sulfides, and VOCs

■ If no data available, sample!

- Use 40 CFR part 136 procedures
- Representative of discharge



Closing Conference

- Ask for clarification
- Obtain missing information
- Discuss items needed
- Email or letter to follow up
- Summarize your notes right away!



Do not make a classification determination in the field unless you are 100% sure!



“What does this machine do?”

- **Some categorical processes look benign**
- **Metal Molding and Casting (40 CFR 464)**
 - Jewelry
 - Using gold, silver, brass
 - Small casting machine
 - Small amount of water
 - Regulated CIU



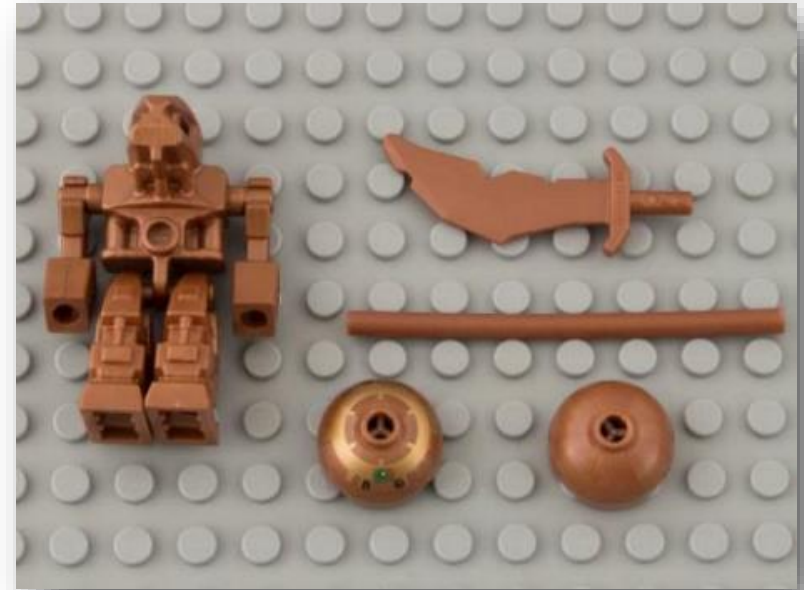
“It’s only a little bit of water.”

■ Cold Forming Dry Process

- Parts cleaned to remove oils → CIU 40
CRF 468.14 Subpart A Copper Forming (h)
Alkaline Cleaning
- Alkaline Cleaning Water → High Metals
 - Low batch discharge <500 gpd
 - Copper and Zinc >100 mg/L

■ Became Zero Discharger

- Improved sludge quality at POTW



“It’s a closed loop system.”

- **Visit to 40 CFR 420 Iron and Steel Manufacturing**
 - Acid pickling
 - Closed loop system
 - “Nothing goes to the drain”
- **Fume Scrubber discharge is regulated under 40 CFR 420**
 - Look at air handling
 - Is there contact blowdown somewhere?



Industry Specific Questions

■ Truck Wash

- Does facility clean interior of tank trucks?
 - If yes, refer to Transportation Equipment Cleaning (TEC) 40 CFR 442
- Cleaners? Brighteners?
- Phosphorus source?
- Settling Tank for Solids?



Industry Specific Questions

■ Food Processing

- Cleaning Chemicals for Equipment/Facility
- Time and Frequency of Routine Cleaning?
 - Any facility shutdowns for deep cleaning?
- Are any solids sent down the sewer?
- Any Pretreatment prior to discharge?
 - pH Adjustment
 - Oil & Grease
 - Color
 - BOD
 - TSS



Building Relationships

- **Industries may need guidance**
 - New Staff / New Permit
 - Submittal Requirements
- **Provide contact information**
 - Be responsive
- **Invite them for tour of POTW**



Ethics

- **Create a good working relationship**
- **Timely communication**
- **Accept NO gifts, favors, lunches, benefits**



USEPA Guidance – January 2017 Update

- “Industrial User Inspection and Sampling Manual for POTWs”

- Available for download:

<https://www.epa.gov/compliance/industrial-user-inspection-and-sampling-manual-publicly-owned-treatment-works>



The previous version of this manual was from 1994.



Questions?





CONTACT INFORMATION



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