Pretreatment Inspection

- How to ID categorical IU's when performing a inspections ???
- What and How to do a Inspections ???
- What do we need to do, and look at ???

Presented by Brad Jones – City of Logan Pretreatment Inspector, Credit to Lynn Miller

Logan City's treatment system?

QUESTIONS YOU MIGHT ASK ABOUT INSPECTION?

- Why do we Inspection businesses ?
- How do we find out about the business ?
- What are we looking for ?
- How do we recognize Significant and/or Categorical Users ?
- Then what do we next?
- Information comes from surveys

WHY AND HOW DO WE ID USERS?

- Identify sources of indirect discharge – the introduction of pollutants into a POTW from any non-domestic source regulated under section 40 CFR.
- Identify and locate **Industrial Users** which maybe be subject to your Pretreatment Program.
- Identify and locate all possible **Significant Industrial Users** which might be subject to your POTW's Pretreatment Program.

What Information are we trying to find out from Surveying INDUSTRIAL USERS ?

- Is a Industries considered Significant User's
- Some may require different controls, or no controls at all – others will need a permit.
- Some may require tracking, but non-routinely
- Some may be determined to require no further action.
- Some will be entered into data base for future reference.

SIGNIFICANT INDUSTRIAL USER {40 CFR 403.3 (v)}

- IU's subject to Federal Categorical Pretreatment Standards under 403.6
- Discharges an avg. 25,000 GPD or more of process wastewater (excluding)
- Contributes 5 % or more of hydraulic or organic capacity of the POTW treatment plant
- Has a reasonable potential for adversely affecting the POTW or violating any standard or requirement.

CATEGORICAL DETERMINATIONS

- Identify production processes, products, raw materials, chemicals & chemical storage areas & waste storage areas
- Production volume & determine potential for spills.
- Understand the processes and management of all generated waste streams. (?)
- Determine applicable category
- Determine applicable subcategory
- Contact Approval Authority for guidance documents

CLASSIFICATION OF INDUSTRIAL USERS

- INITIAL SURVEY should ask for the following information.
  - Name and address
  - Standard Classification (SIC) Code
  - Description of operation
  - Products Manufactured/Services Provided
  - Environmental Control Permits
  - Wastewater flow/ Water Usage
  - Chemical Used
  - Description of Chemical Storage
  - Treatment
  - Discharge Practices (Continuous or batch)

- COMPLETE A WALK THROUGH INSPECTION OF THE FACILITY REVIEWING THE ABOVE INFORMATION.

Characterization of Industrial User

- After reviewing all information from survey, a inspection of facility, & meet with the industry for inspection and walkthrough.
- How to make a characterization of the industry?
- Make sure you review all waste streams for proper classification. There may be more then one regulated waste stream.
- For example if they are doing any of the following six processes (Electroplating, Electroless plating, Anodizing, Coating (chromating, phosphating, and coloring), Chemical Etching and milling, Printed Circuit Boards Manufacturing) your business is considered a metal finisher and any one of (40) other process are classified as metal finishing also.

METAL FINISHER

- Cleaning, machining, grinding, polishing, tumbling, burnishing, impact deformation, pressure deformation, sheering, heat treating, thermal cutting, welding, brazing, soldering, flame spraying, sand blasting, other abrasive jet machining, electric discharge machining, electrochemical machining, electron beam machining, laser beam machining, plasma arc machining, ultrasonic machining, sintering, laminating, hot dip coating, sputtering, vapor plating, thermal infusion, salt bath descaling, solvent degreasing, paint stripping, painting, electrostatic painting, electro painting, Vacuum metalizing, assembly, calibration, testing, and mechanical plating

Don’t make a mistake in Characterization of industry

- Mistakes can bring doubt on your ability as a pretreatment person, however if you do make a mistake tell the industry and correct the error. Work with the industry.
- Be willing to ask others for help.
  (EPA, State, or other pretreatment systems or inspectors.)
- Read the 40 CFR classification and make sure it fits.
  (You sometimes may find businesses that are hard to classify.)
  (Don’t be in a hurry unless they are causing damage to your facility or collection system, or endangering the public, or water ways?)
- Perform sample to see what parameters are in the waste stream. (Most industries will work with you, because they want to be classified properly.)

CA Checklist for Inspections of IU's

- Facility information— This review will ensure that the facility information such as the facility address (physical location versus mailing location) and the location of the sampling point is correct in the permit and permit files.
- Production processes— This will help in identify the following: – Applicable categorical Pretreatment Standards – Toxic or hazardous substances that might be present in raw materials, products, and by-products that have the potential to be present in the industry's discharge – Water uses and resulting wastewater streams – Existing in-process pollution controls – Potential for spills and leaks.

Continued

- Layout of the plant (to sewer and discharge point(s)) — If a facility plan exists, review the plan thoroughly to determine the course and destination of each discharge line. Identify the exact source of, and the points at which each waste streams enters the sewer. Points of discharge to the sewer system will be identified in the permit
- Wastewater treatment facilities, including treatment performance and operation and maintenance practices— Such information can be used to evaluate the adequacy of existing treatment, to assess the feasibility of improvements, and to evaluate performance data.

Continued

- Types discharges batch or continuous that occur at the facility This information could affect the design of the monitoring requirements. Cleanup operations usually result in batch discharges of wash-down water. Obtain information about cleanup times and water volumes.
- Sampling points, sampling methods, and analytical techniques. This information is necessary to determine appropriate limits to apply at different locations, whether internal monitoring points should be established, and to evaluate the quality of both the Control Authority's and the Industrial User's sampling data.

Continued

- Raw material and product storage and loading areas, sewage sludge storage and disposal areas, hazardous waste management facilities (if applicable) including on-site disposal areas and all process areas, and the proximity of such areas to sewer discharge points. This review will help to identify potential pollutants and potential or known problems with spills or leaks. The information is then used to determine the

  I. Control Authority Checklist Facility Inspection of Industrial User.

  2. Need for additional controls by establishing specific Industrial User BMPs (i.e., slug discharge control plans, toxic organic management plans, and good housekeeping practices).

Site Visit Inspection Data Sheet

- INSTRUCTIONS: Record observations made during the IU site visit. Provide as much detail as possible.
- Name of industry: Address of industry: Date of visit: Time of visit: Name of inspector(s): Provide the name(s) and title(s) of industry representative(s); Names, Titles, Phone/E-mail. IU Permit Number: Exp. Date: IU Classification: Inspection Type/Purpose Scheduled, Unscheduled, PCA, PCI, New Company, Complaint.

Please provide the following documentation:

- 1. Nature of operation:
- 2. Number of employees, Number of shifts: Hours of operation:
- 3. Water source:
- 4. Waste stream flow(s) discharged to the POTW: Regulated Ave. & Max Total Ave. & Max. Sanitary: (gpd), Process: (gpd), Combined: (gpd)
- 5. Describe any significant changes in process or flow:

Continued

- 6. Type of pretreatment system (Describe): Continuous flow Batch Combined
- 7. Condition/operation of pretreatment system (Describe):
  Any unusual conditions or problems with the pretreatment system:
- 8. Process area description (identify raw materials and processes used):
- 9. Condition/operation of process area (Describe):
  Any unusual conditions or problems with the process area:
- 10. General housekeeping in process area (Describe):
  Any unusual conditions or problems with general housekeeping in process area:
- 11. Chemical storage area (identify the chemicals that are maintained on-site and how they are stored): Any floor drains? Any spill control measures?
  General housekeeping of chemical storage area (Describe):
- 12. Are hazardous wastes drummed and labeled?

Continued

- 13. Does the IU have hazardous waste manifests?
  Any problems associated with hazardous waste:
- 14. Solid waste production: Solid waste disposal method(s):
- 15. Description of sample location: Sampling method/technique:
- 16. Evaluation of self-monitoring data: Yes No N/A
  If Yes, was self-monitoring adequate:
- 17. Who performs the self-monitoring analysis?

Notes:

What other things would you want to ADD ???

Continued

A Bay Area - (Packaging)

B Bay Area - (Powder Mixing)
Between B & C bays in the hall, **they have the spill kits, and the spill plan was posted**. .

C Bay Area (Liquid & packaging & blending).

Wash area is located in an enclosed or contained area. Drains got to treatment
Spill plan on the doors and they have a **spill kit.**

Hazardous waste/Flammable Room (still part of C Bay)
Spill plan posted and they have a
spill kit. Solvents are shipped off site every 90-days.

D-Bay (Liquid storage area)
Is the **raw goods & chemical storage area for liquids**.

Flammable storage Bay # 2: **Spill plan on the door.**

E-Bay (Finish Product, holding area/QC)

Additional information, etc. ID: Locations, room numbers, letters

Lets take a look at some Industries

- How would be classifications these industries?
- Can you identify any of the following type of industries by their picture?
- Do you have Industries that look the same?
- Where can you find this information?

  40 CFR 405 to 471 (General information 400 to 404)

What type of facility is this?

D
E

What type of process and facility ?

- Metal Finishing – 40 CFR 433.17
- SIC code -3479 & 3842
- Medical
- Machining, cleaning, deburring, Passivation

What type of business is this?

- Metal Finishing
- 40 CFR 433.17
- SIC code 3479
- Plating

What type of facility is this?

What type of facility is this?

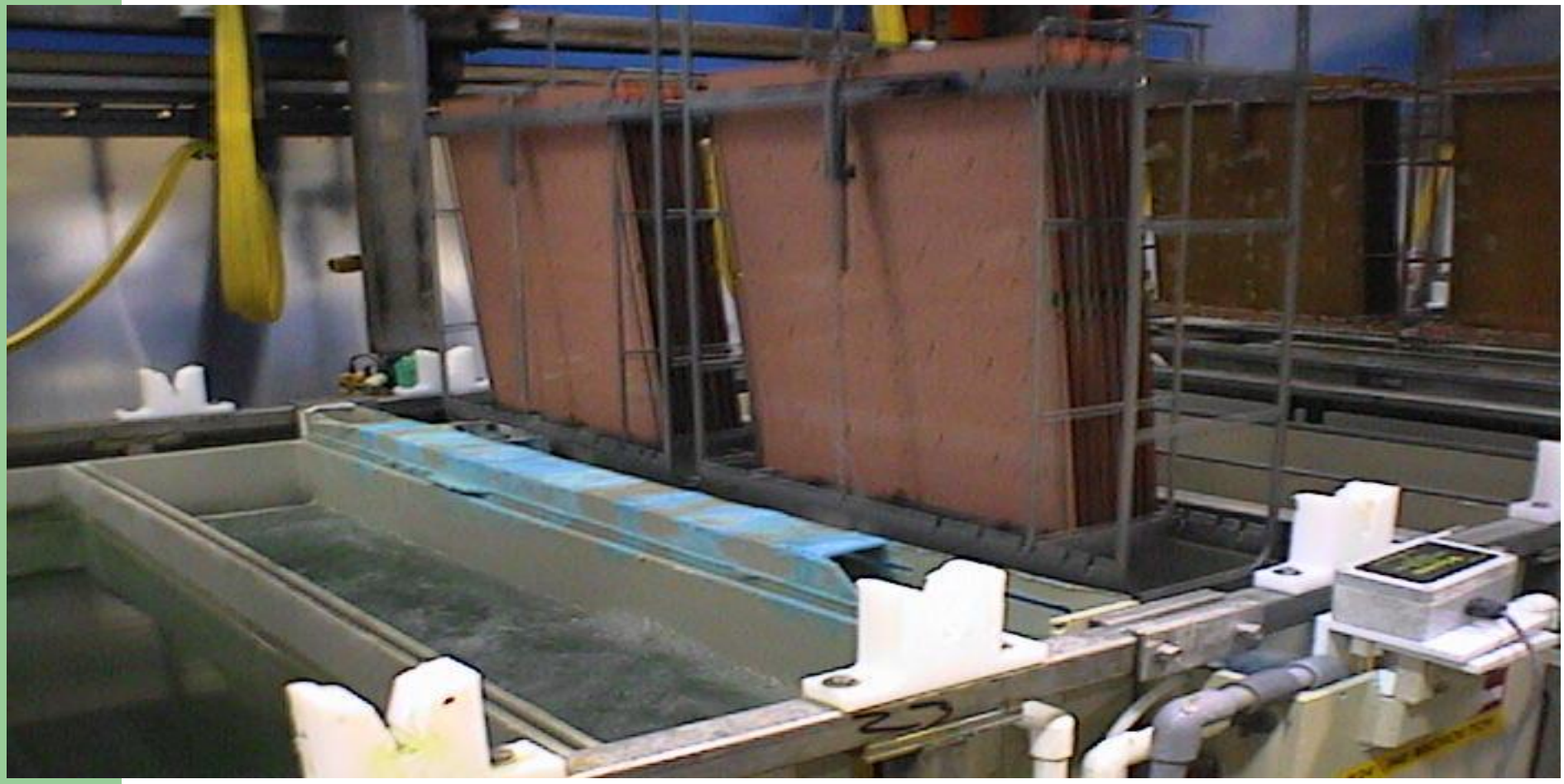
- No SIC code
- Cleaning, coloring, polishing, deburring, etc

What type of facility is this?

- 40 CFR 463
- Subpart A & C
- Plastic extruding

What type of facility is this?

What type of facility is this?



What type of facility is this?

- 40 CFR 433.17 (a)
- SIC code 3672
- Printed circuit broads

What type of business?

12
4

- 40 CFR 405. 10 to 127
- (Dairy Products)
- From subpart A to L
- From fluid, butter, cheese, ice cream, etc.

- A,B,D,F,G, & L.
- A,B,C,E,F, & G.

What type of facility is this?

- 40 CFR 433.17
- SIC code 3537, 3631, 3479
- Metal finishing, powder coating, etc.

What type of facility is this?

Rotavapor

- 40 CFR 414.86
- Subpart H
- Specialty Organics
- Indirect discharge point source subpart K

What type of business?

What type of facility is this?

- 40 CFR 405
- Subpart F (Natural & Processed Cheese)
- Also A,B,D,G, & L.

What type of business is this?

- 40 CFR 406
- Subpart G
- Animal feed subcategory

What type of business is this?

- 40 CFR 418.76
- Subpart G
- Fertilizer manufacturing (mix & blending)

Types of treatment facilities

- Identify the type of treatment processes and facilities from these pictures?

Treatment facility for what type?

What type of treatment? (Copper cyanide tank and rinse tank)

What type of treatment system?

What type of treatment process?

What type of treatment process?

What type of treatment is this?

What type of treatment facility?

What type of treatment system?

This treatment is most likely used by?

This process water would come from?

What type of treatment is this?

What type of treatment is this?

What type of treatment is this?

Chemical Storage - the Key?

- What can we learn from chemical storage areas?
- How can spills affect our POTW?
- Why containment?
- Why Spill Plans & Spill Kits?
- Identify the potential type of business from the following chemicals?

What type of Industry chemical storage?

What type of facility?

What type of facility ?

SPILL RESPONSE
EQUIPMENT

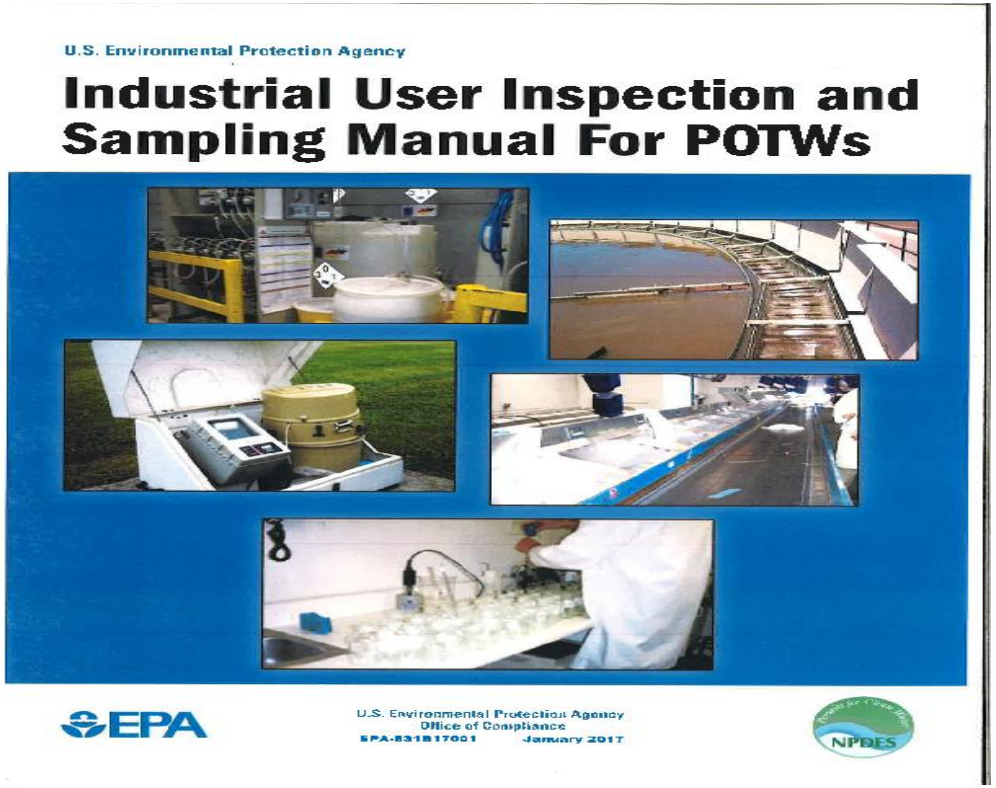
Sample port

What type of device is this?

Reference documents:

- Guidance Manual for the Control of Wastes Hauled to POTWs - http://www.epa.gov/npdes/pubs/hwfinal.pdf
- Control of Slug Loadings to POTWs: Guidance Manual - http://www.epa.gov/npdes/pubs/owm021.pdf
- Determining Industrial Significant Noncompliance - http://www.epa.gov/npdes/pubs/industrial_user.pdf Industrial User
- Inspection and Sampling Manual for POTWs – (April 1994) http://www.epa.gov/npdes/pubs/owm0025.pdf
- Industrial User Permitting Guidance Manual – http://www.epa.gov/npdes/pubs/pretreatment_iu_permitmanual.pdf
- Other USEPA reference documents can be downloaded from: http://cfpub.epa.gov/npdes/docs.cfm?document_type_id=1&view=Policy%20and%20Guidance%20Documents&program_id=3&sort=name

SUMMARY


U.S. Environmental Protection Agency
Industrial User Inspection and Sampling Manual For POTWs
EPA
U.S. Environmental Protection Agency
Office of Compliance
EPA-833B17001 January 2017
NPDES

Hero’s, we all need some !!!

Any Questions? Thanks for your Time!

Brad L. Jones – Logan City Pretreatment

1883 Gatling Gun