Industrial Waste Surveys

Registered Pretreatment Coordinator Course

Compile Master List

- Master list of potential industrial users located within the sewer service area
- Issuing industrial pretreatment permits to all appropriate industrial users

Compile Master List

- Surveying each of these potential industries to begin to collect the information necessary to determine if an industrial pretreatment permit must be issued

Compile Master List

- Conducting follow-up activities, where needed, to obtain complete and accurate information in order to make a final determination as to if an industrial pretreatment permit must be issued

Compile by Sources

- Existing records, if any
- Water usage information from the City's water utility records (billing)
- Sewer connection permits
- City Telephone directory
- City and State Industrial directories
- EPA records pertaining to facilities that file under the Section 313 Toxic release Inventory program

Compile by Sources

- Fire Department records pertaining to facilities that file Emergency and Hazardous Chemical Inventories (Tier ll Reports)
- Local Chamber of Commerce
- Newspaper articles/trade journals/business magazines

Develop Questionnaire

- At a minimum should address the following:
- Name of Facility
- Address
- Facility contact for follow-up activities

Develop Questionnaire

- Standard Industrial Classification (SIC) code
- Hazardous chemicals present on site, and amounts
- Major products manufactured or services supplied
- Number of employees

Develop Questionnaire

- Processes present that generate wastewaters discharged to the sanitary sewer system
- Volume of wastewater discharged from each process
- Known pollutants present in process wastewater discharges and concentrations

Develop Questionnaire

- Description of any existing on-site pretreatment facilities and / or practices
- Locations of discharge

Develop Questionnaire

- Operation and productions schedules
- Flow diagrams and site sewer map
- Permitted cooling water discharges

Develop Questionnaire

- Processes generating wastewaters that are hauled off-site for treatment
- Identification of any existing environmental management plans
- Any other information deemed appropriate

Follow-up Activities

- Facilities that clearly warrant consideration as SIU's where the issuance of an industrial permit is likely
- Facilities that warrant additional investigation based upon their questionnaire responses

Follow-up Activities

- Facilities that clearly do not discharge any process wastewaters or have any hazardous chemicals on-site that could impact POTW operations if released to the sanitary sewer system.

Follow-up Activities

- All facilities in the top two categories of previous slide
- Should be visited by POTW personnel to assure POTW has a clear understanding of the current facility operations and process wastewater discharges.

Follow-up Activities

- Review service area maps again - remember Control Authorities must ensure the entire service area is reviewed

Note: This may include Industrial Users located within a jurisdictional boundary of the POTW

Survey Evaluation

- Define / Separate those industries that use or discharge process water from those that do not.
- Define / Separate those industries that need to supply more information
- Define / Separate those industries that stated no discharge to sewer system

Industries that Discharge Process Wastewater

- Classify Industrial users
- Type – foundry, machine shop, screen manufacture, etc.
- Amount of Process water discharged per day

Industries that Discharge Process Wastewater

- Industrial User or Significant Industrial User
- Job shop or non job shop

Industrial User or Significant Industrial User

- INDUSTRIAL USER – means any industrial establishment that discharges industrial (process) wastewater into the wastewater treatment facility.

Industrial User or Significant Industrial User

- SIGNIFICANT INDUSTRIAL USER - any user that:
  - a. Subject to a categorical standard
  - b. Discharges an average of 25,000 gallons or more a day of process wastewater to the treatment facility

Industrial User or Significant Industrial User

- c. Discharges process wastewater that is 5 percent or more of the average dry weather hydraulic or organic capacity of the wastewater treatment facility

Industrial User or Significant Industrial User

- d. Is designed as having a reasonable potential to adversely affect the operation of the wastewater treatment plant or to violate any pretreatment standard or requirement

Define Job Shop vs. Non Job Shop

- Job Shop - a facility which owns not more than 50% (annual area basis) of the materials undergoing operations

Determine Need to Control

- Review all gathered information
- (suggest compiling on excel sheet)

- Does Facility Discharge Process Wastewater?

Determine Need to Control

- Does Facility fall within Industrial User or Significant Industrial User (subject to Categorical Pretreatment standards) status?

Waste Stream Categorizing

Determine type of waste stream:

- Regulated
- Non-regulated

Regulated Waste Stream

- Process Water – any water which, during manufacturing or processing, comes into contact with or results from the production or use of any raw material, intermediate product, finished product, byproduct, or waste product.

Regulated Waste Stream

- Contact Cooling Water - water used for cooling that comes into direct contact with any raw material, intermediate product, finished product, byproduct, or waste product

Regulated Waste Stream

- Combined Wastestream Formula – Procedure for calculating alternative discharge limits at industrial facilities where a regulated wastestream from a categorical industrial user is combined with other wastestreams prior to treatment

Non-Regulated Stream

- Non-Contact Cooling Water - Any water used for cooling which does not come into direct contact with any raw materials, intermediate product , waste product, or finished product.

Non-Regulated Stream

- Blowdown - The discharge of water with high concentrations of accumulated solids from boilers to prevent plugging of the boiler tubes and / or steam lines.

Non-Regulated Stream

- In cooling towers, blowdown is discharged to reduce the concentration of dissolved salts in the recirculating cooling towers .

Non-Regulated Stream

- Sanitary waste stream - the discharge from sanitary conveniences of dwellings (including apartment houses and hotels), office buildings, factories, or institutions; free from storm and / or surface water and / or industrial wastes.

Non-Regulated Stream

- Sanitary sewage – a combination of the water-carried wastes from residences, business buildings, institutions and industrial establishments, together with such groundwater, surface water and storm water as may be present

Types of Industrial Wastestreams Discharged

- Batch discharge - a quantity of collected wastewater in a container released at one time usually at a designed rate (gallons per minute) until container has empted and the cycle starts over again when container is filled

Types of Industrial Wastestreams Discharged

- Continuous discharge - a discharge that occurs without interruption during the operating hours of a facility, except for infrequent shutdowns for maintenance, process changes or similar activities and is usually reported as gallons per day.

Types of Industrial Wastestreams Discharged

- Combined Wastestream – a discharge at industrial facility where a regulated wastestream from a categorical industrial user is combined with other wastestreams prior to treatment

Toxic Wastestream

- Toxic Pollutants may pass thru the treatment plant into the receiving stream, posing serious threats to aquatic life, to human recreation, and to consumption of fish and shellfish from these waters.

Toxic Wastestream

- Discharges can interfere with the biological activity of the treatment plant causing sewage to pass through the treatment plant untreated or inadequately treated

POTW Responsible for Toxic Wastestream

- Toxic organics, including solvents, pesticides, dioxins, polychlorinated biphenyls (PCBs) can be cancer-causing and lead to other serious aliments, such as kidney and liver damage, anemia, and heart failure.

POTW Responsible for Toxic Wastestream

- Many POTWs are responsible for ensuring that industrial and commercial facilities do not cause problems resulting from their discharges.

Wastestream Certification

- Certain Categorical users must either perform monitoring activities for toxic pollutants in wastestream or provide certification in lieu of monitoring
- Certification is only allowed where a management plan is approved and implemented

Wastestream Certification

- This plan is called a Toxic Organic Management Plan (TOMP)
- The TOMP should identify all potential sources from which toxic organic materials could enter the wastestream and propose control measures to eliminate the possibility

Wastestream Certification

- Where a TOMP is allowed, an Industrial User can demonstrate compliance through adherence to the TOMP and submission of periodic certification statements attesting to the fact

Wastestream certification

- Based on my inquiry of the person or persons directly responsible for managing compliance with the pretreatment standard for Total Toxic Organics, I certify that, to the best of my knowledge and belief, no dumping of concentrated toxic organics into the wastewater has occurred since filing the last discharge monitoring report (Self-Monitoring Report).

Wastestream Certification

- Con't ---
- I further certify that this facility is implementing the Toxic Organic Management Plan submitted to the control authority (POTW) on (specify date)

Wastestream Certification

- Con't
- Each Certification statement (previous 2 slides) must also have included with it the following:
  - Signature of responsible company official :
  - Printed name of official:
  - Title of person certifying report:
  - Date:

Summary

- Compile Information
- Review & Study gathered information
- Determine potential permit necessity
- Potential permitted industries should be visited in person
- Determine final permit necessity

(Issue Permit)

Contact Information

- **Duane Griner, Pretreatment Coordinator**
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