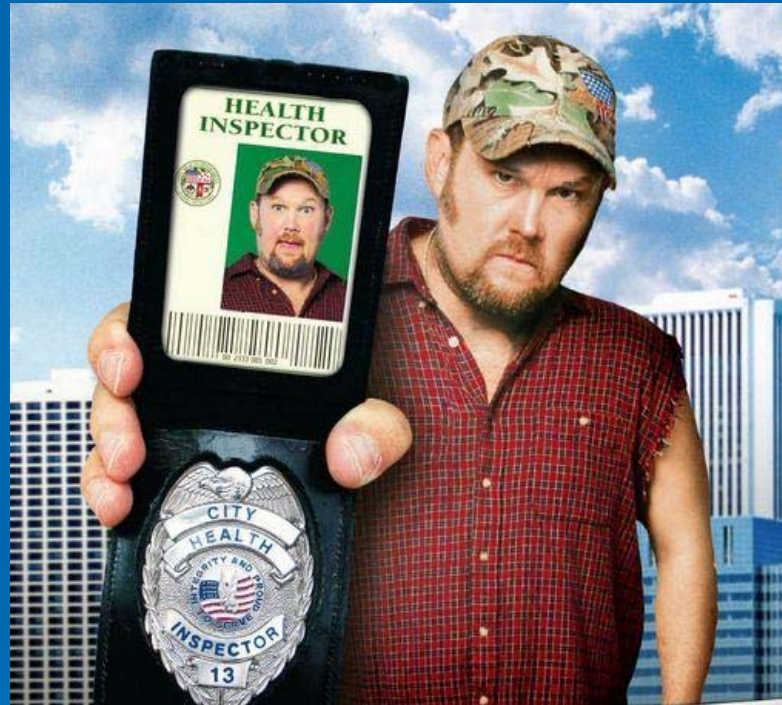
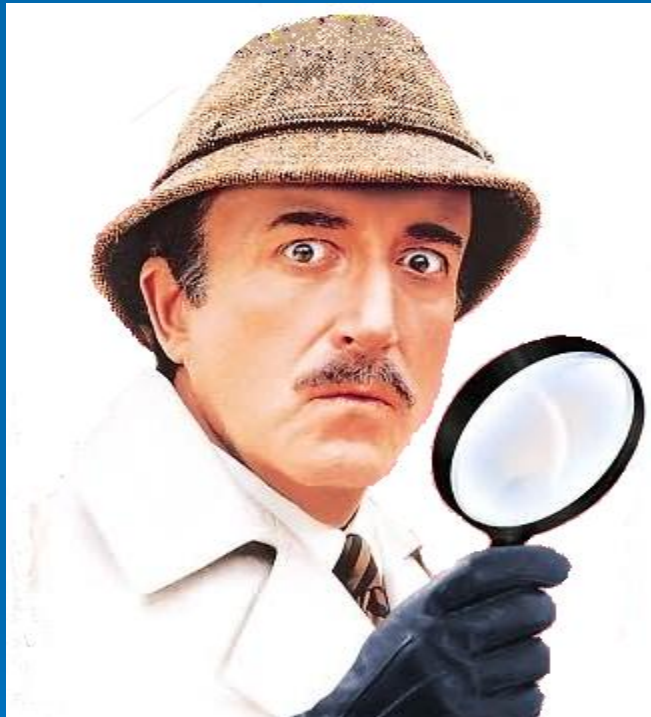


CWA-NPDES ASK THE INSPECTOR WORKSHOP



EPA Region III
Joe Reyna – Environmental Scientist
Luke Wolfgang – Environmental Engineer
January 27, 2010

CWA Background

➤ What is a Pollutant?

- The term pollutant is defined very broadly in the Clean Water Act because it has been through 25 years of litigation. It includes any type of industrial, municipal, and agricultural waste discharged into water. Some examples are dredged soil, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt and industrial, municipal, and agricultural waste. By law, a pollutant is not sewage or discharges incidental to the normal operation of an Armed Forces vessel, or water, gas, or other material injected into an oil and gas production well.

Common Inspection Problems

- Not Identifying Pollutants
- Examples (Chlorine discharges from swimming pools or water line breaks)
- Temperatures of Wastewater Effluent Discharges
- Sediment/Dirt
- Spills

CWA Background

- What is a water of the United States?
 - The term "water of the United States" is also defined very broadly in the Clean Water Act and after 25 years of litigation. It means navigable waters, tributaries to navigable waters, interstate waters, the oceans out to 200 miles, and intrastate waters which are used: by interstate travelers for recreation or other purposes, as a source of fish or shellfish sold in interstate commerce, or for industrial purposes by industries engaged in interstate commerce.

Common Inspection Problems

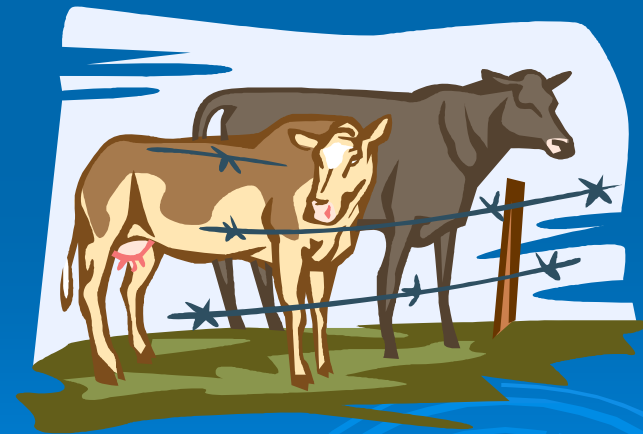
- Know Your State Regulations
- Some States have their own “Waters of the State” Regulations that may have a broader definition
- Examples: Stormwater Ponds, Groundwater, and Intermittent Streams

NPDES Overview

- National Pollutant Discharge Elimination System (a permit system)
- Applicable to:
 - CAFOs (Concentrated Animal Feeding Operations);
 - Combined Sewer Overflows (CSOs);
 - Sanitary Sewer Overflows (SSOs);
 - Pretreatment; and
 - Stormwater

Concentrated Animal Feeding Operations (CAFOs)

- Agricultural operations where animals are kept and raised in confined situations
- Requirements based on type and size of animal feeding operation.



CAFOs (cont.)

Anyone in the Audience Have CAFOs?



Common Inspection Problems

- Improper Manure Disposal
- Veterinary Wastes
- Horse Stables
- Dog Park Waste
- Who cleans up the poo, and where does it go?

Combined Sewer Overflows (CSOs)

- What are combined sewer systems?
 - Comprised of sewers designed to collect rainwater runoff, domestic sewage, and industrial runoff in the same pipe
- When do CSOs occur?
 - CSOs occur when the wastewater volume in the pipe exceeds the capacity of the system
 - Typically occurs during wet weather
- System designed to overflow

Combined Sewer Overflows cont'd.

- Are overflows allowed?
 - Overflows are allowed under certain conditions
 - Overflows can contain untreated sewage and discharge from industrial users

- Major water pollutant concern for approx. 772 cities in the United States

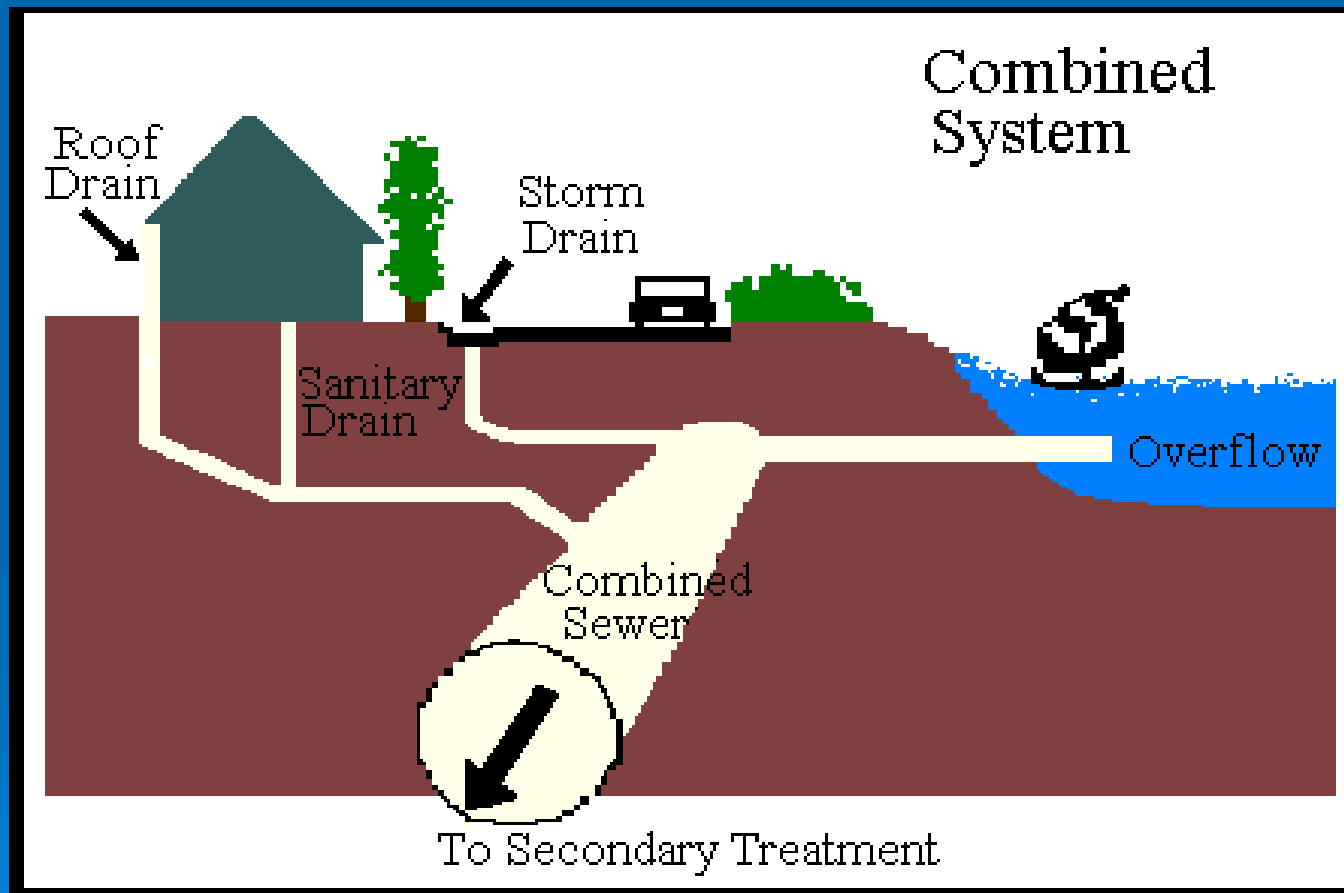
Who Has A Combined System???

➤ Anybody in the Audience?

Common CSO Problems

- Raw Sewage Discharges into Waters of the US or Waters of the State
- Very Expensive to maintain or separate sewer and stormwater lines

Combined Sewer Overflows (cont.)



CAUTION

Combined Sewer Overflow

During and after rain, avoid contact with water. This pipe may discharge rainwater and sewage.



To report problems, please call (216) 432-7333
Refer to **CSO Outfall # 204**



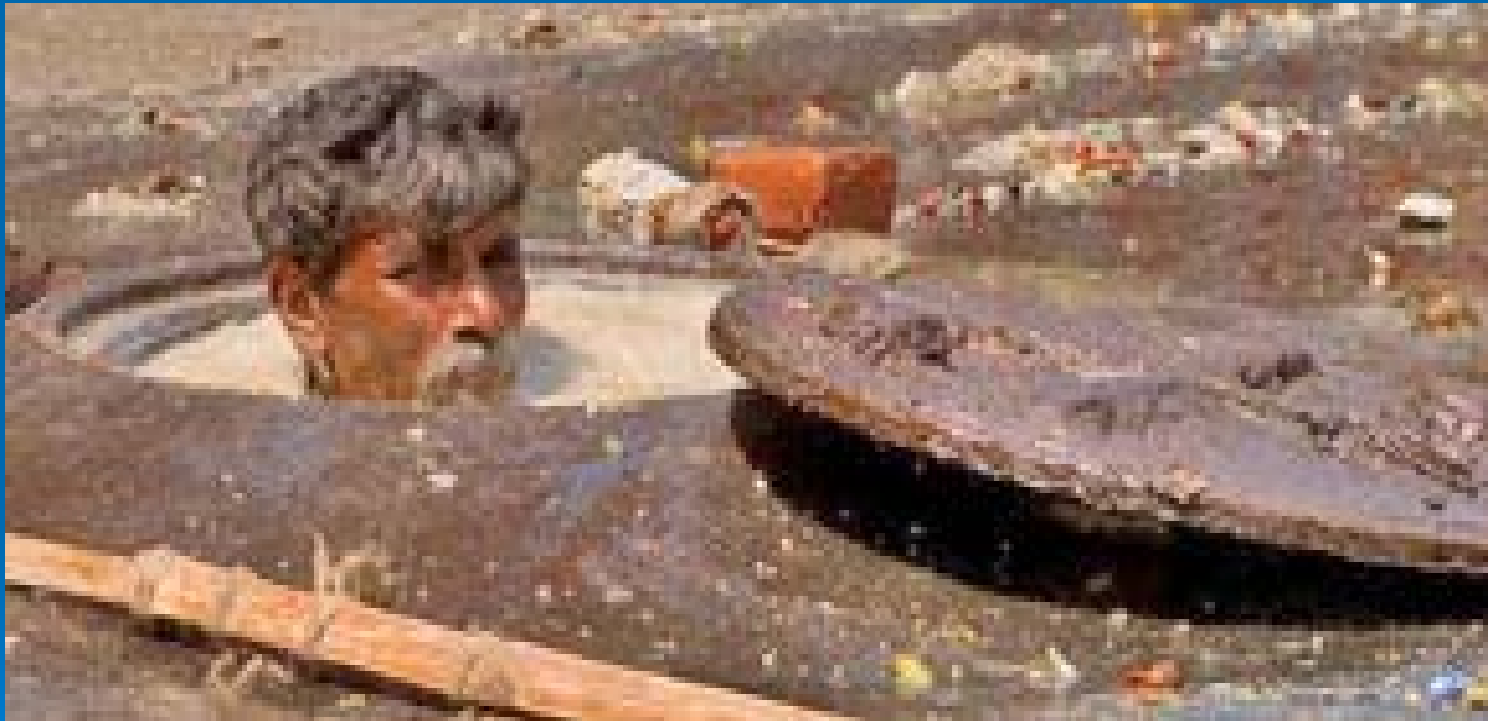
Northeast Ohio Regional Sewer District
Ohio EPA permit # 3PA00002

cso.neorsd.org

Sanitary Sewer Overflows (SSOs)

- Apply when a system transports its waste and stormwater in two separate pipes
- What are SSOs?
 - SSOs discharge raw sewage directly into a water body
- What are the causes of SSOs?
 - Insufficient capacity in the system
 - Insufficient pumping capacity
 - ***Blockages***
- Are SSOs legal?
 - SSOs are **illegal** in accordance with the Clean Water Act

Sanitary Sewer Overflow Common Problems



SSO Common Inspection Problems

- Old sewer line infrastructure
- Grease Blockages
- Inflow/ Infiltration (groundwater and/or stormwater)
- Failure to Report SSOs
- Lack of Funds to repair or replace damaged lines
- Tree Roots

SSO Common Problems



Flow Estimation?

SSO Draining to River



Pretreatment

- Who is subject to the pretreatment program?
 - Publicly Owned Treatment Works (POTWs)
 - Industrial Users (IUs) Federal Facilities
- Pretreatment Standards and Limits
 - Prohibited discharge standards
 - Categorical Pretreatment standards
 - Local limits

Pretreatment cont'd.

➤ Prohibited Discharge standards

- National standards applicable to all industrial users to a POTW
- Designed to protect against pass through or interference

➤ Categorical Pretreatment standards

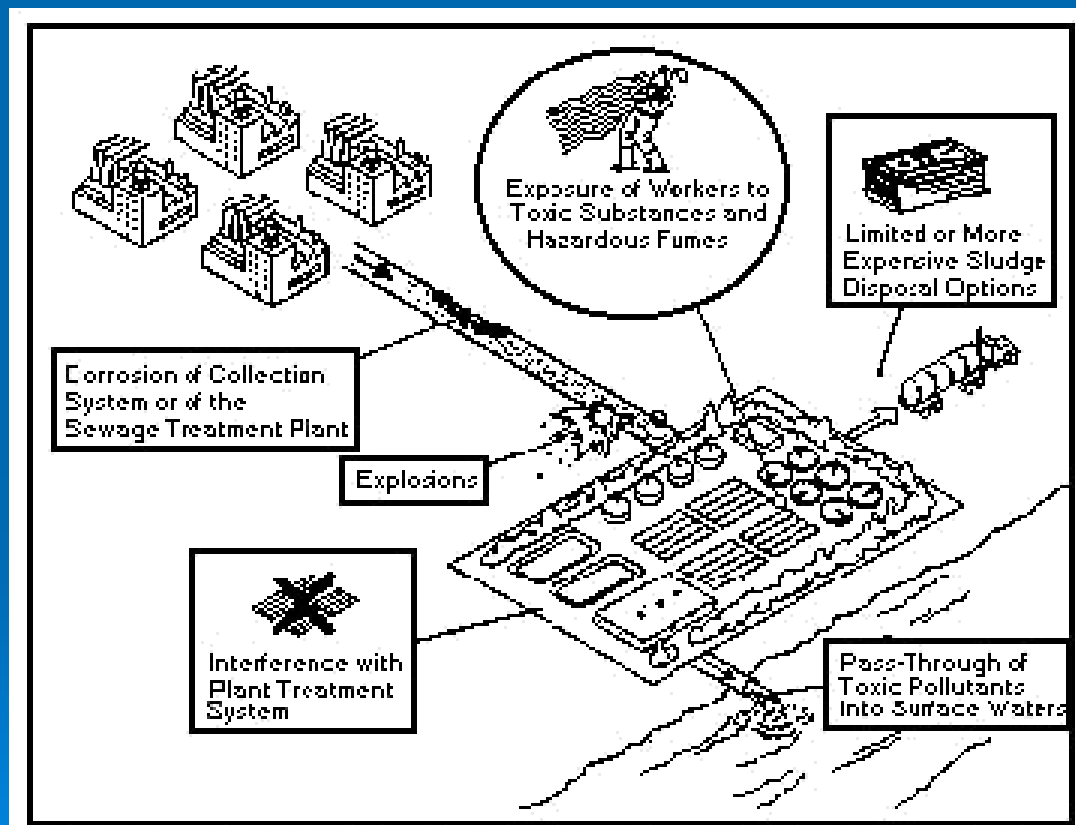
- Limitations on pollutant discharges to POTWs
- National, technology based standards that apply regardless of a pretreatment program or permit

Pretreatment cont'd.

➤ Local limits

- POTWs must create Local limits or demonstrate they are not necessary
- Designed to protect POTW receiving waters
- Local limits are needed when pollutants are received that could result in pass through or interference at the POTW
- Site specific needs (Metals, Solvents, pH)
- Dependant upon industrial users in area and type of influent received at plant

Pretreatment (cont.)



Pretreatment Common Inspection Problems

- Failure to identify all industrial process that generate wastewater
- Pass through interference
- Pretreatment unit failures (oil/water separators, neutralization tank errors)
- Laboratory spills or unauthorized discharge into sanitary sewer (sinks)

Wastewater Treatment Plants

- Who in the audience operates/maintains wastewater treatment plants at their Federal Facility?
- Major or Minor?
- Old or New?



Common WWTP Problems

- Lack of Funds
- Poor Operation/Maintenance
- Old
- Inflow/Infiltration
- Effluent Exceedances (BOD, TSS, Nutrients)
- Instrument Calibrations (pH, DO, flow measuring devices)

Sample Collection and Analysis



Common Sample Collection Errors

- Failure to collect samples
- Grabs or Composites
- Samples not iced or refrigerated
- Samples not preserved
- Samples exceed holding times (DO & pH must be analyzed within 15 minutes)
- Oil & Grease Sample Collection Errors

Most Common Inspection Problems

- Keep up with employee training
- Read your permit(s)
- Maintain records in an orderly fashion
- Communication throughout the Federal Facility Chains of Command
- Funding
- Infrastructure maintenance

ASK THE INSPECTORS

