

Ask the Inspector Workshop – Your Stormwater Challenges at Federal Facilities

EPA Region III
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- I want to thank you for participating in this training.
- Travel budgets are tight and we may have to do more web based trainings in the future.
- This training will illustrate the most common Stormwater inspection concerns at Federal Facilities.

Main Topics for Training

- Municipal Separate Storm Sewer Systems (MS4s)
- Stormwater – Construction
- Stormwater – Industrial
- Lists of Most Common Violations found at Federal Facilities

Stormwater

- Discharges generated by runoff from land and impervious areas during rainfall events
- Have the potential to adversely affect water quality through discharge of pollutants into surface waters of the U.S.
- 3 types of regulated stormwater discharges:
 1. Construction activities
 2. Municipal separate storm sewer systems
 3. Industrial activities

Stormwater (cont.)

➤ Construction activities

- Requires operators of construction sites 1 acre or larger to obtain a permit to discharge

➤ Municipal separate storm sewer systems

- Otherwise called MS4s
- Small operators have choice between individual or general permit
- Medium and large operators required to submit permit applications and are issued individual permits

MS4 Minimum Control Measures

- Public Education and Outreach
- Public Participation/Involvement
- Illicit Discharge Detection and Elimination
- Construction Site Runoff Control
- Post Construction Runoff Control
- Pollution Prevention/Good Housekeeping

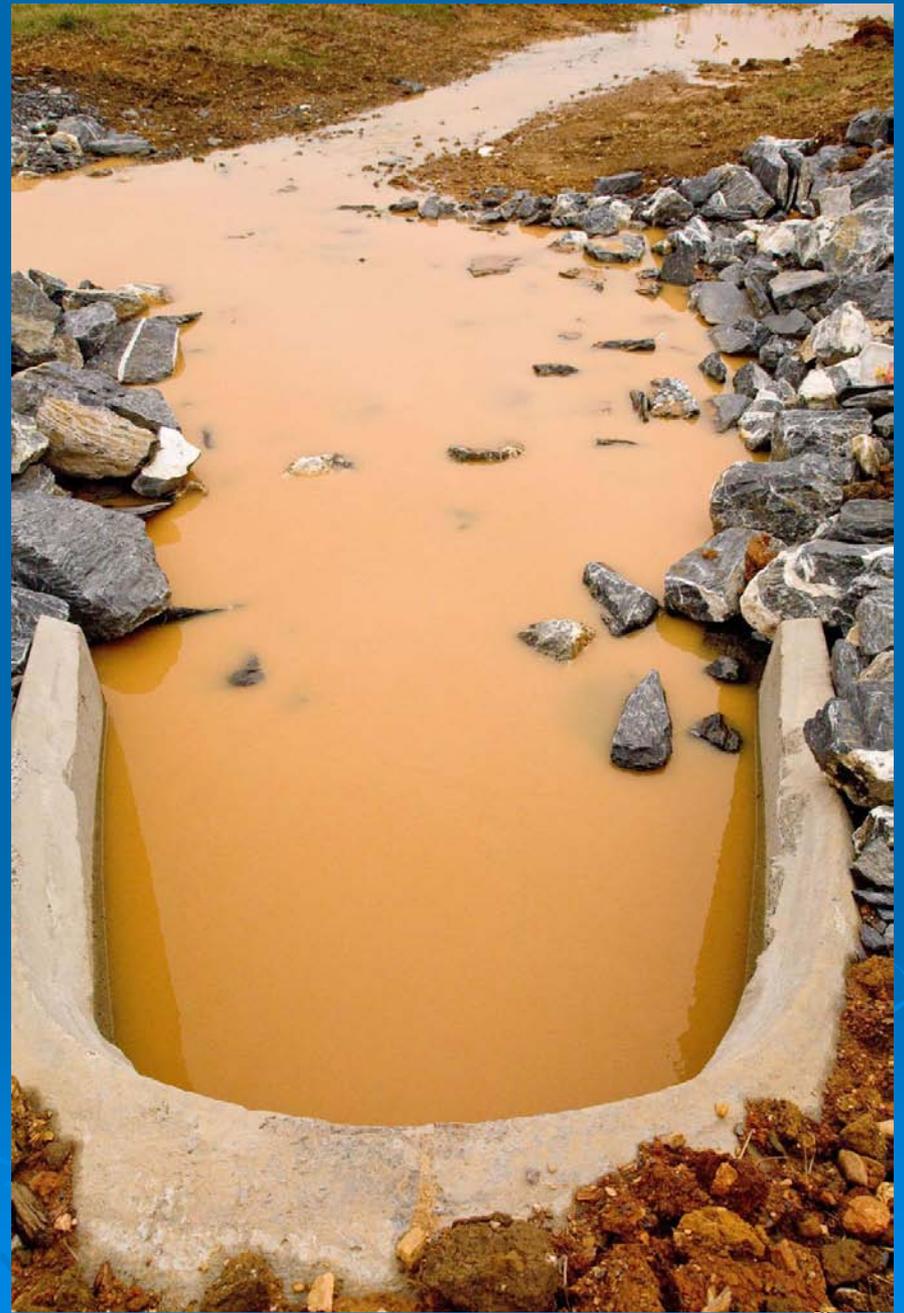
Stormwater (cont.)

➤ Industrial Activities

- Activities at federal facilities are often industrial in nature and exposed to weather
- Contact with materials picks up pollutants and transports them to nearby surface waters
- Federal Facilities can be as diverse as a small city, therefore many industrial activities can trigger the need for a stormwater coverage.

Stormwater Impacts

- Sediment can cloud the water making it difficult or impossible for aquatic plants to grow. Sediment can also destroy aquatic habitats.
- Excess nutrients can cause algal blooms. When algae die, they sink to the bottom and decompose in a process that removes oxygen from the water. Fish and other aquatic organisms can't exist in water with low dissolved oxygen levels.





Stormwater Impacts (cont.)

- Common hazardous wastes like insecticides, paint, solvents, used motor oil, and other auto fluids can poison aquatic life. Animals and people can become sick or die from eating diseased fish and shellfish or ingesting polluted water.

Stormwater Impacts



Impact



- Always look inside manholes and check oil/water separators.
- Facility stated they were unaware this was happening.
- Facility was caught off guard with the oil the inspector found.
- Know your facility's impact or potential pollutant sources.

Construction Stormwater

- Who conducts inspections at construction sites?
 - EPA and State
 - City and County can also be delegated authority

Construction Stormwater (cont.)

What will the
Inspectors be
looking for while
inspecting your
construction
sites?



Construction Stormwater (When Inspectors Attack!)

An Inspector will *always* review the SWPPP

- **Site/Project Description**
- **Pollutant Potential Sources**
- **Number of Acres (Disturbed Acres)**
- **General Location of Receiving Waters**
- **Site map**
- **Copy of your permit**

Construction Stormwater (cont.)

Construction Inspection SWPPP Review (cont.)

- **Drainage Patterns and Approximate Slopes**
- **Location of All Major Structural Controls**
- **Equipment Storage Areas**
- **Stormwater Outfalls and Inlets**
- **Drainage Basins/Sedimentation Ponds**
- **Surface Waters Adjacent to or in Close Proximity**

Construction Stormwater (cont.)

Are the Best Management Practices Effective?

- **Erosion and Sediment Controls must be designed to retain sediment and process by-products on-site**
- **Must be adequately fit for your Facility's needs**
- **Must be properly maintained**

Construction Stormwater (cont.)

Examples of Best Management Practices

- Silt Fencing (Not always Best)
- Protect Natural Features
- Construction Phasing
- Site Stabilization
- Vegetative Buffers
- Construction Entrances
- Storm Drain Inlet Protection
- Dirt Stock Piles
- Slopes

Construction Stormwater (cont.)





Drains to Bay!

Most Common Violations Found at Federal Facility Construction Sites

- Inadequate/Failed BMPs
- BMPs Not Properly Installed
- Poor Record Keeping
 - No records of inspections
- Housekeeping Issues
- Stabilization
- Phasing Out of Sequence
- SWPPP not Implemented/Updated
 - A SWPPP is a Living Document
- Sediment Entering a Receiving Stream
 - Protect your inlets
- Contractor Oversight Issues
- **READ YOUR PERMIT!**



BMP Weekly Checklist stated all BMPs were in Good Condition.





The silt fence was FINE before it started raining. BMPs should be installed to WORK properly during rain events (otherwise it is not a BMP).



I stopped fixing the fence because they keep running it over.



Top Left= Concrete Truck Wash Out not conducted in proper location.

Top Right= Not a dirt road. Poor housekeeping

Bottom Left= Dry Weather Flow. Unauthorized discharge from mess hall.

Upgrade BMPs



Construction Stormwater Questions???

Industrial Stormwater

“Am I Subject to the Regulations?”

➤ Industrial Activity Analysis

- Permitting determinations are based on categories of industrial activities occurring at Federal Facilities
- Standard Industrial Classification (SIC) codes

Industrial Stormwater cont.

➤ Typical Categories of Industrial Activities that occur at Federal Facilities

- Manufacturing Activities
- Marinas/Ship Repair
- Hazardous waste, treatment, or disposal facilities
- Landfills
- Recycling Facilities
- Airports
- Fleet Maintenance
- Treatment works
- Construction activity
- Bulk Storage Facilities
- Steam Generation
- Warehousing

Industrial Stormwater (cont.)

“What Are My Options?”

- In general, there are two options for Federal Facilities subject to the Industrial Storm Water regulations:
 1. Obtain Permit Coverage
 2. No Exposure Certification

Industrial Stormwater (cont.)

- Two Types of Permits

1. Multi-Sector General Permit (MSGP)

- *Industry Specific Requirements and State Specific Requirements

2. Individual NPDES Permit

Industrial Stormwater (cont.)

No Exposure Certification

- 5 year certification
- Certify “Under the Penalty of Law”
- Must maintain “no exposure” for entire 5 years period
- Stormwater composed entirely of Stormwater
- Industrial Activities must be indoors.



Industrial Stormwater (When Inspectors Attack cont.)

What will the inspector focus in on?

- Notice Of Intent (NOI) - aka “permit application”
- Storm Water Pollution Prevention Plan (SWPPP) –“the crux”
- Site Diagram
- Training
- Inspections/Monitoring
- Record Keeping

Industrial Stormwater (cont.)

What does the Inspector look at during a SWPPP Review?

- Facility Background Description
 - Number of acres
 - Description of Outfalls and Receiving Streams
 - Industrial Activity

- Site Map
 - Outfall Locations
 - Drainage Patterns/Topographical Features

Industrial Stormwater (cont.)

What does the Inspector look at during a SWPPP Review? (cont.)

- Identification of Pollutant Potential Sources
- Best Management Practices (BMPs)
 - Must be linked to pollutant potential sources
 - Can be physical and/or operational
- Training
 - Must be linked to pollutant potential sources
 - Must include the proper management of BMPS

Industrial Stormwater Cont.

What does the Inspector look at during a SWPPP Review? (cont.)

➤ Inspection/Monitoring

- State Required Monitoring/Annual Comprehensive Site Evaluations

➤ Record Keeping

- SWPPP including all attachments, NOI, Inspection Records, Training Rosters, Analytical Results, Certification of Non-Stormwater Discharges

Industrial Stormwater Cont.

What will the Inspector look at while on-site i.e.,
Outside?

- Material storage areas
- Lay-down Yards aka Bone Yards
- Loading/Unloading Areas
- Floor drains inside of buildings
- Outfalls
- Receiving Streams
- Weather

What Inspectors Hear on Inspections

- I've been working here for 35 years, and I have NEVER seen that happen.
- That's not my job.
- Those drums weren't there yesterday.
- I would have cleaned that up...but I didn't know you were coming.
- It rarely rains, and if it does we NEVER have a discharge!
- We have great housekeeping procedures.
- Our BMPs NEVER Fail.
- Why do I need stormwater training?

What Inspectors Find on Inspections

- Floor Drains leading to Storm drains
- Unknown drums
- Dry weather flows (nonstormwater discharges)
- Poorly maintained BMPs
- Spills
- Unidentified outfalls
- Untrained staff pouring pollutants into the storm drains.



Leaking drums



How many violations can you see?
Don't let this happen to your facility.
A silt fence is not the best BMP for this situation.



Know what your facility looks like from the rear. How much TSS do you think is entering the River? Very important to walk around entire property line. Know your impact. Identify all outfalls.



We always find lost drums at Fedfacs.





Leaking drums of hazardous waste located near a storm drain. How many violations do you see in this photo?



Hazardous waste entering the floor drain system. Know where your floor drains discharge. We have found floor drains discharging into the storm drain outside the building.



Left: Lead acid batteries stored outside. Casing were cracked and leaked acid. Not storing universal waste properly. Potential stormwater concerns.

Right: Dried yellow paint poured into storm drain. This is not the proper way to dispose of paint.

Concern: RCRA program and CWA can overlap. Who's job is it?



Leaking electrical transformers stored outside. Many Federal Facilities store oil-filled transformers outside. Some transformers have PCBs. Must be managed properly to prevent release of oil. SPCC, Stormwater, and TSCA concerns. We have seen this on several FedFac multimedia inspections.

Common Stormwater Violations at Federal Facilities

- Record Keeping
- House Keeping
 - Tell operators to move it indoors (if possible)
- Permit, Permit, Permit
 - Read, read, read
- Un-permitted Outfalls/Un-authorized discharges
 - Not all Industrial Activities are covered
 - Walk facility perimeter/fence line
 - Train staff and yourself to identify and quickly remediate problems.
 - Representative Outfalls
 - Go out in the RAIN!!!

The Results of a Poorly Managed Stormwater Program



Yikes!

Questions??? ASK THE INSPECTOR

