2016 Michigan Environmental Compliance Conference

NPDES Permit Program and Compliance Inspections

Presented by
Water Resource Division
Field Operations Section

Goals and Objectives

- A discussion about the NPDES permit
- Information about the inspection process
- Common violations found during an inspection
- How to avoid those violations
- What's New?

Why Are Permits Needed?

Rouge River -1969

Rouge River - 1971

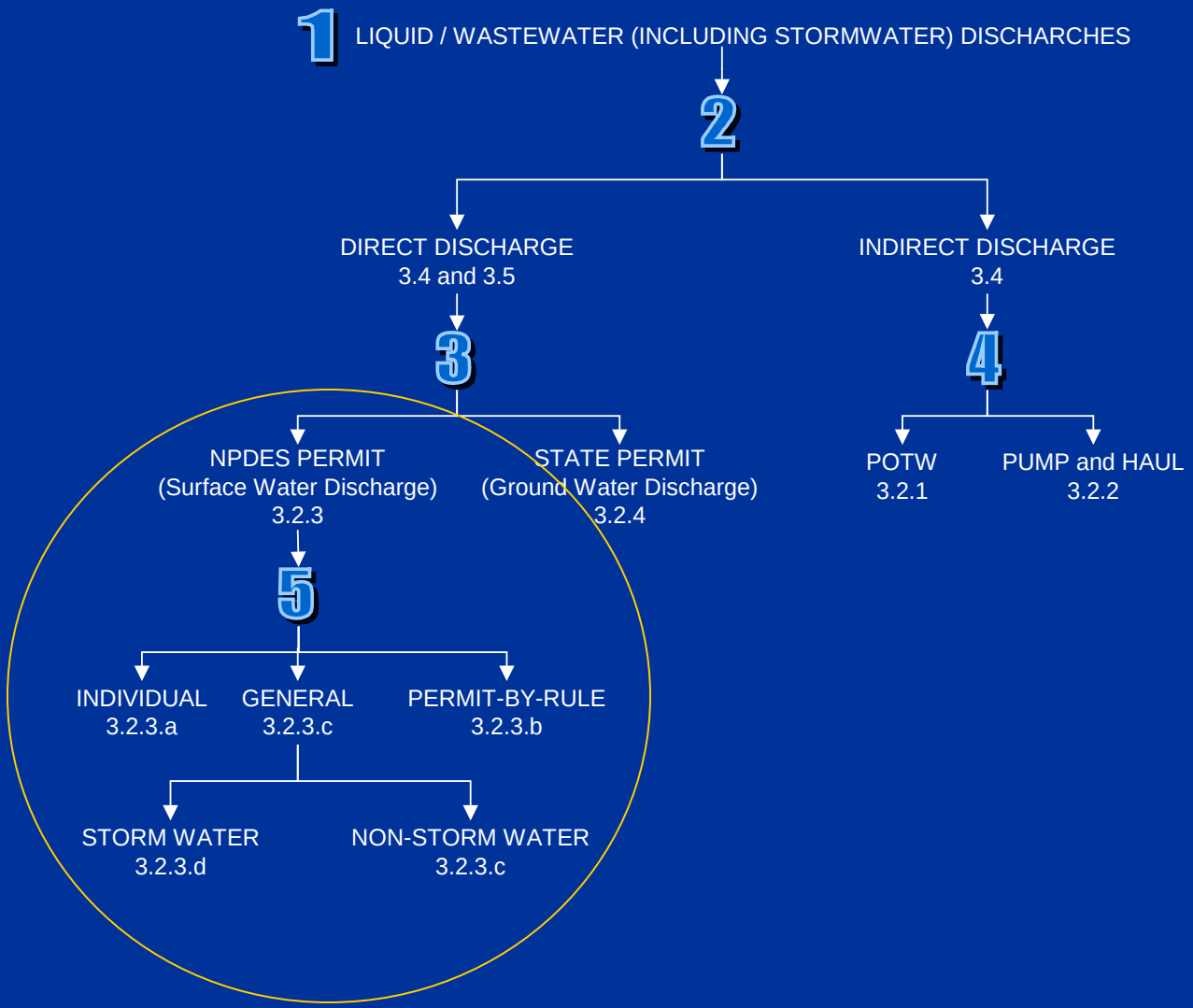
Rouge River - 1987

Red Cedar River

1966

2000

Regulatory Programs
Wastewater Destinations (3.1)



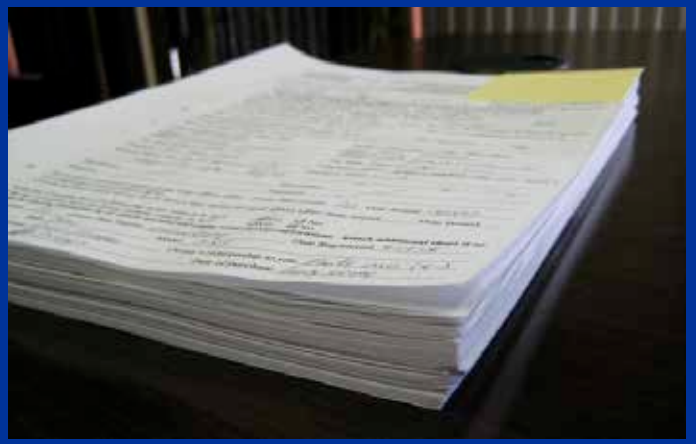
Who Needs A NPDES Permit?

- Any entity that discharges wastewater to surface waters of the state
- Any entity that discharges storm water when associated with certain industrial, municipal and construction activities
- Concentrated animal feeding operations

Three Types of NPDES Permits

1. Individual Permits

- Facility specific
- Tailored to facility-specific discharges
- Specific to the receiving water they discharge to



See Section 3.2.3.a

Three Types of NPDES Permits

2. Permit-By-Rule

- Requirements stated in a formally promulgated administrative rule
- Facility must abide by the provisions written in the rule

Ø Storm water from construction sites of one acre or more are covered by a Permit-By-Rule

See Section 3.2.3.b

Three Types of NPDES Permits

3. General Permits

- Designed to authorize similar type discharges
- Must be complemented by a Certificate of Coverage

EXAMPLES

Storm Water

Wastewater Lagoons

Noncontact Cooling Water

Hydrostatic Pressure Test Water

Petroleum Contaminated Groundwater

See Section 3.2.3.c

WHAT DO YOU KNOW ABOUT YOUR NPDES PERMIT?

Key Elements of a NPDES Permit

- **The authorization statement**:

"During the period beginning on the effective date of this permit and lasting until the expiration date of this permit, the permittee is authorized to discharge a maximum of nine hundred and seventy thousand (970,000) gallons per day of process wastewater, noncontact cooling water, and an unspecified amount of well water and storm water from Monitoring Point 001A through Outfall 001."

Key Elements of a NPDES Permit

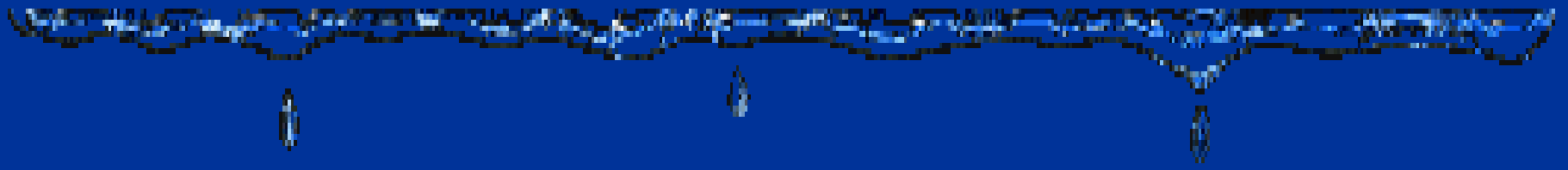
- **Effluent limitations and monitoring requirements – parameters, sample type and location, quantification levels, and the narrative standard**

"The receiving water shall contain no unnatural turbidity, color, oil films, floating solids, foams, settleable solids, suspended solids, or deposits as a result of this discharge in quantities which are or may become injurious to any designated use."

Key Elements of a NPDES Permit

- **Additional Studies** - mercury study, waste characterization study, whole effluent toxicity, thermal plume study

- **Specific Programs** – industrial pretreatment program, pollutant minimization program and storm water



Key Elements of a NPDES Permit

- **Definitions** - of terms used in the permit
- **Monitoring Procedures**
  - Test Procedures
  - Instrumentation
  - Record Results
  - Records Retention
  - Electronic reporting (how data must be saved and stored)

Key Elements of a NPDES Permit

- **Reporting Requirements**
  - Additional Monitoring Requirements
  - Self-monitoring Requirements
    - DMRs
    - Retained Self-monitoring
- **Change in Operations/Discharge**
- **Noncompliance Notification**
  - 24- Hour Reporting (Verbal)
  - Other Reporting

Key Elements of a NPDES Permit

- Noncompliance Notification

"a. 24-hour reporting - Any noncompliance which may endanger health or the environment (including maximum and/or minimum daily concentration discharge limitation exceedances) shall be reported, verbally, within 24 hours from the time the permittee becomes aware of the noncompliance. A written submission shall also be provided within five (5) days.

Key Elements of a NPDES Permit

Ø Noncompliance Notification

b. <u>other reporting</u> - The permittee shall report, in writing, all other instances of noncompliance not described in a. above at the time monitoring reports are submitted; or, in the case of retained self-monitoring, within five (5) days from the time the permittee becomes aware of the noncompliance.

Key Elements of a NPDES Permit

- Noncompliance Notification

  Written reporting shall include:

  1) a description of the discharge and cause of noncompliance; and

  2) the period of noncompliance, including exact dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and the steps taken to reduce, eliminate and prevent recurrence of the noncomplying discharge."

Key Elements of a NPDES Permit

- **Management Responsibilities** – operator certification, facility operation, treatment system closure

- **Activities Not Authorized** - discharges to groundwater, property rights

Why Do You Need to Know This?

These are some of the elements that we will evaluate when we conduct an inspection

Why Do We Inspect?

- The NPDES program is a self-monitoring program
- EPA Commitments
- DEQ Mission
- Complaints

Do You Feel Like A Target?

- These commitments ensure that our inspection schedules are unbiased
- All NPDES permitted facilities can expect regular inspections (announced and unannounced)
- More complex facilities and/or those not in compliance with their permit may be inspected more often
- Not all inspections will include the same level of review

How Do We Decide Who Will Get Inspected?

- We look at when the facility was last inspected and the type of inspection that was conducted
- The type of facility, complexity of the treatment system and nature of the wastewater discharge
- When the facility's permit will be reissued
- The compliance status of the facility
- Random selection

Types of Inspections

- ***Compliance Sampling Inspection***

  An unannounced high-level inspection with wastewater sampling

Types of Inspections

- ***Compliance Evaluation Inspection***

  Similar to the CSI, but it does not include sampling of the facility's wastewater

- ***Reconnaissance Inspection (recon)***

  A low-level inspection may include a review of any number of topics

How Do We Prepare For An Inspection?

- We review the file to evaluate the overall compliance status
  - Compliance with effluent limitations
  - Has the facility reported and submitted information as required by the permit (Was it complete? Timely?)
  - Is the facility using the appropriate test methods? Quantification levels?

How Do We Prepare For An Inspection?

- Who is the certified operator?
  - Do they have the proper certification?
  - Has there been a change?
- Has the facility reported any spills?
  - Has the public complained?
- Did the facility notify us of noncompliance as required?
  - 24-hour or “other” reporting

How Do We Prepare For An Inspection?

- Trends in operational problems?
- Is the facility proactive or reactive with issues regarding operation and maintenance problems?

What Happens Next?

- We have an opening conference with the operator and/or manager of the facility to discuss the purpose of the inspection and what areas we would like to cover

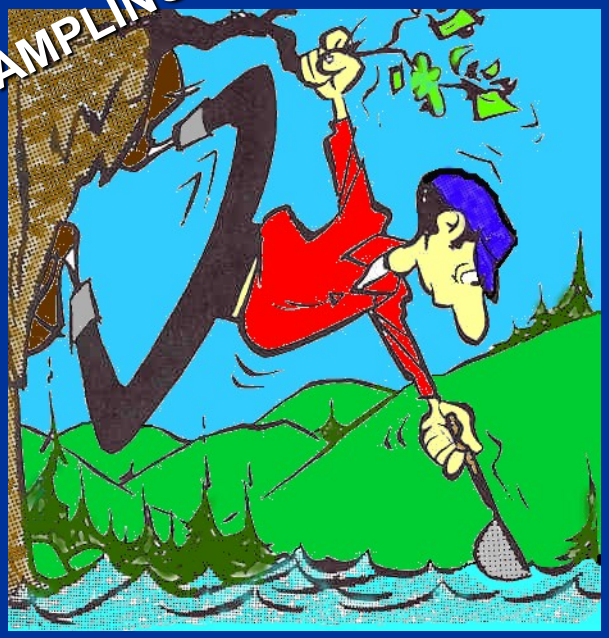
- We review the facility records

- We follow the water flow:

Water into the facility → where it leaves the facility → and every point in between

What Happens Next?

We may also review other areas such as sampling techniques, lab, and operations and maintenance



Consistently

Representative

Proper Procedures

What Happens Next?

- We tour the facility and the waste treatment facilities. We'll evaluate:
  - Pavement staining, pooled liquids, pipes/hoses located in interesting places

What Happens Next?

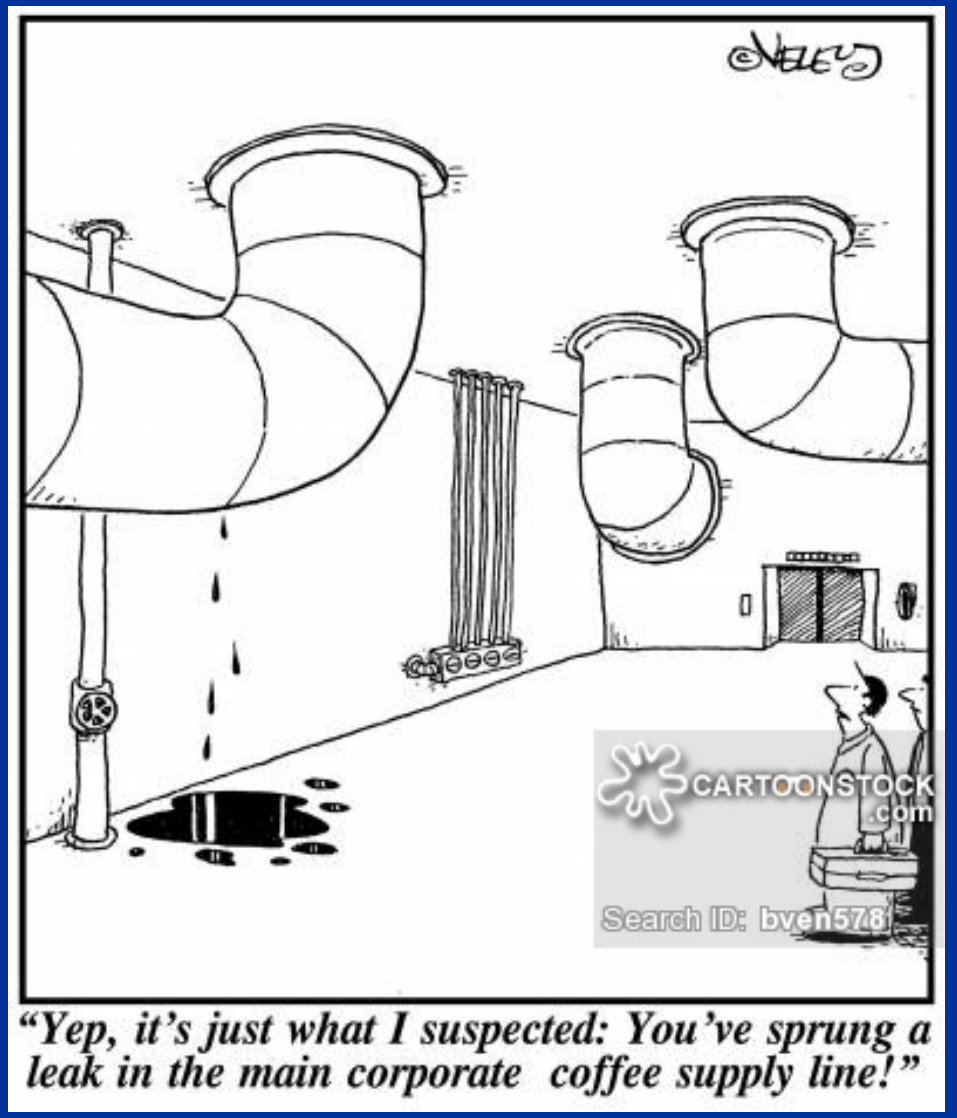
Plugged weirs

- Operation and Maintenance problems

What Happens Next?

- Operation and Maintenance problems

What Happens Next?



"Yep, it's just what I suspected: You've sprung a leak in the main corporate coffee supply line!"

- Operation and Maintenance problems

What Happens Next?

§ Housekeeping issues

What Happens Next?

- The visual quality of the wastewater being discharged

What Happens Next?

- We have a closing conference. This conference will summarize:
  - Those areas of noncompliance that were identified
  - Those areas that need improvement
  - What additional information we may need
  - What information we will be providing to the facility
  - What our next steps are likely to be (a letter, violation letter, another inspection)

Common Violations

- Violations of the narrative standard
- The facility failed to report their noncompliance as required

Common Violations

- The facility is not monitoring at the specified frequency
- Improper test methods and quantification levels
- No Standard Operating Procedures, QA/QC program, or they are out-of-date
- Transcription problems with reported data

Common Violations

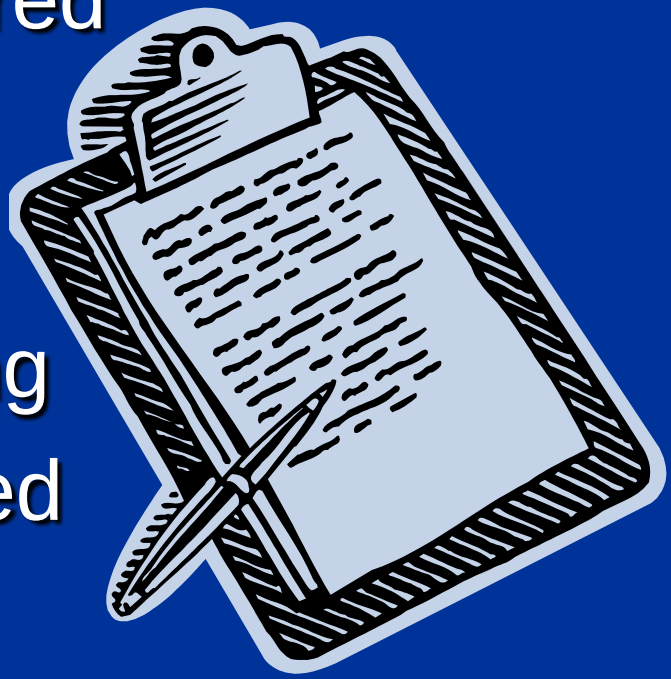
- Improper calculations (e.g. geometric mean, 7-day averages)

- The facility did not have a properly certified operator

If you aren't sure if your operator is properly certified, please call your district office

Common Violations

- The facility failed to send us something that was required or it was not sent timely



- The facility is not collecting or retaining all the required monitoring data

You may have done the monitoring, but you must record it to prove it!

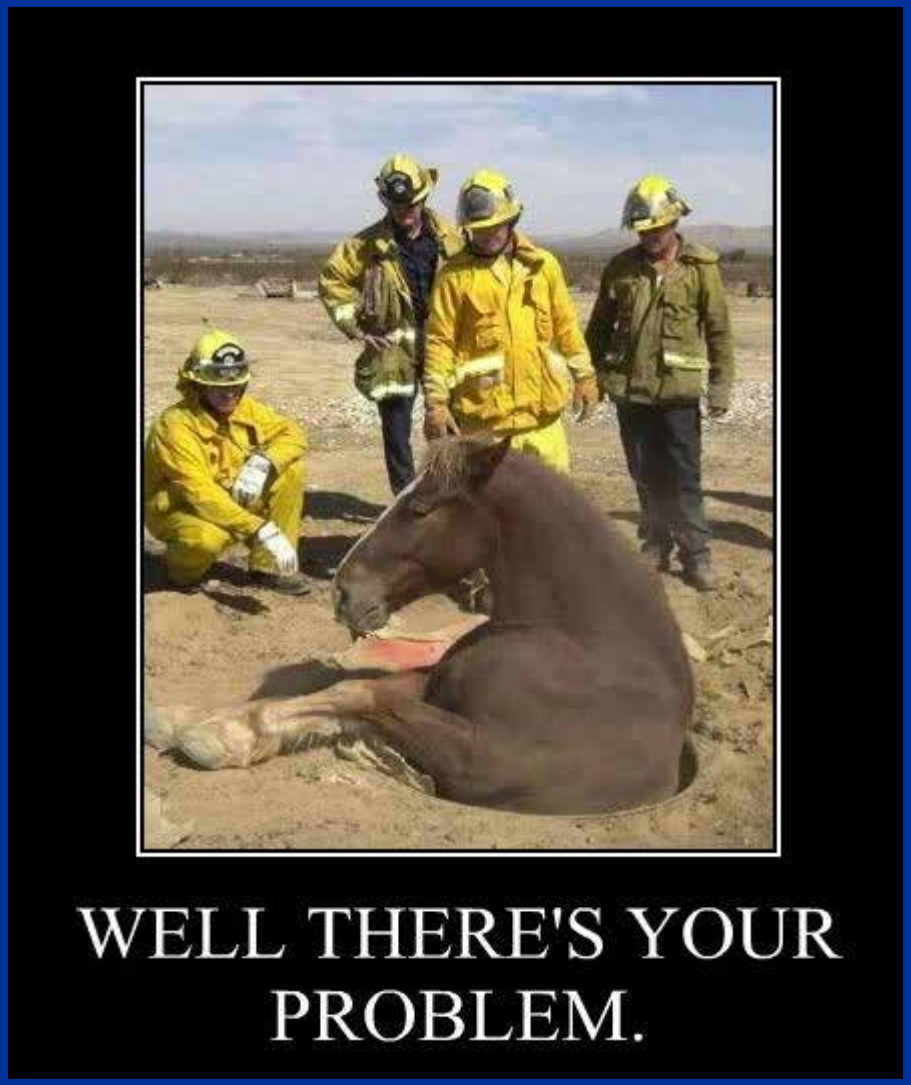
Common Violations

- Storm water issues (such as exposure, track-out, or secondary containment issues)
- Overall housekeeping of the facility

Common Violations

ø Unpermitted discharges

So How Can You Stay in Compliance With Your Permit?



- Learn to look in the right places
- Don’t overlook the obvious

So How Can You Stay in Compliance With Your Permit?

- Read and understand your permit
- Write down important dates
- Check all your forms to ensure that you are collecting all the required information
- Double check your monitoring data for accuracy before you submit it to us

So How Can You Stay in Compliance With Your Permit?

- Educate your employees so they don't unknowingly create a problem
- If you aren't sure we need to be called for a problem, call anyway
- Get to know your compliance person so you can work together when problems arise
- READ YOUR PERMIT 

What's New?

- New additional analytic testing requirements have been identified for some toxic pollutants

Selected Organic Toxic Pollutants	
1,2-Diphenylhydrazine (as Azobenzene)	3.0 µg/l
2,4,6-Trichlorophenol	5.0 µg/l
2,4-Dinitrophenol	19 µg/l
3,3'-Dichlorobenzidine	1.5 µg/l, EPA Method 605
Acrylonitrile	1.0 µg/l
Benzidine	0.1 µg/l
Bis (2-Chloroethyl) Ether	1.0 µg/l
Di-N-Butyl Phthalate	9.0 µg/l
Fluoranthene	1.0 µg/l
Hexachlorobenzene	0.01 µg/l, EPA Method 612
Hexachlorobutadiene	0.01 µg/l, EPA Method 612
Hexachlorocyclopentadiene	0.01 µg/l, EPA Method 612
Hexachloroethane	5.0 µg/l
Phenanthrene	1.0 µg/l
Pentachlorophenol	1.8 µg/l
Vinyl Chloride	0.25 µg/l

- Be sure to review the Application and Appendix requirements prior to renewal to ensure you are providing the required information

What's New?

316(b) of the Clean Water Act

- All new or existing facilities utilizing a surface water intake structure is subject to this newly promulgated Rule

- The purpose of the 316(b) Rule is to minimize the mortality of aquatic organisms from cooling water intake structures

Application Requirements For All Facilities With Cooling Water Intake Structures

Section	Study Name	Study Contents
(r)(2)	Source water physical data	Water body description, hydrology, chemistry, area of influence of the intake structure
(r)(3)	Cooling water intake structure data	Configuration of intake, flows, water balance diagram, typical operations
(r)(4)	Source water baseline biological characterization data	Species present, susceptibility to impingement and entrainment, spawning periods, seasonal patterns; Threatened and Endangered species documentation
(r)(5)	Cooling water system data	Configuration of cooling water system, water reuse
(r)(6)	Intended method of compliance with impingement mortality standard	Select impingement mortality compliance path, option-specific info (e.g., monitoring plan for BTA, documentation of velocity); Performance Optimization Study
(r)(7)	Existing entrainment performance studies	Previous studies on technology efficacy, studies from other facilities, other entrainment studies
(r)(8)	Operational status	Age, utilization, past upgrades

MiWaters

There will be two MiWaters presentation during the conference

- June 21 – In the Basic Training track at 2:50 PM
  “MiWaters 101 – What it Does, What it is, and How to Get Started”

- June 22 – In the Water Quality track at 9:00 AM
  “MiWaters for the Experienced User”

Compliance Assistance Tools

- 316 (b)Cooling Water Intake Structure Guidance
- How to Apply for a NPDES Permit
- DMR Reporting User Guide
- Lagoon FAQ
- Monthly Operating Report Forms
- Report of Discharge Form
- QC Guidance for Mercury – 1631E
- Water Treatment Additive Instructions
- Applicable Rules & Regulations

We Share The Same Goals

- Maintain compliance with the permit

- Protect public health and the environment

Questions?

(Anybody here want to be them?)