

Module 12 - USEPA NPDES WET Compliance and Enforcement



Notes:

Welcome to this presentation of the United States Environmental Protection Agency's, hereafter USEPA, National Pollutant Discharge Elimination System, or NPDES, Whole Effluent Toxicity Compliance and Enforcement. This presentation is part of a web-based training series on Whole Effluent Toxicity, or WET, sponsored by the USEPA Office of Wastewater Management's Water Permits Division. You can review this stand-alone presentation, or, if you have not already done so, you might also be interested in viewing the other presentations in this series, which cover the use of Whole Effluent Toxicity under the NPDES permit program. Before we get started with this presentation, I have one important housekeeping item.

Presenters

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Notes:

First, the introductions.

Your speakers for this presentation are, me, Laura Phillips, USEPA's NPDES WET Coordinator with the Water Permits Division within the Office of Wastewater Management at the USEPA Headquarters in Washington, D.C, and Kathryn Greenwald from the USEPA Office of Enforcement and Compliance Assurance's, or OECA, Office of Civil Enforcement in the Water Enforcement Division. Second, now for that housekeeping item.

You should be aware that all the materials used in this presentation have been reviewed by USEPA staff for technical and programmatic accuracy; however, the views of the speakers are their own and do not necessarily reflect those of the USEPA. The NPDES permit program, which includes the use of WET testing, is governed by existing requirements of the Clean Water Act and USEPA's NPDES permit implementation regulations. OECA's NPDES compliance and enforcement program is also governed by existing requirements of the Clean Water Act and USEPA policy and guidance. These statutory and regulatory provisions contain legally binding requirements. However, the information in this presentation is not binding. Furthermore, it supplements, and does not modify, existing USEPA policy and guidance on WET in the NPDES permits and enforcement programs and USEPA OECA's policies. USEPA may revise and/or update the contents of this presentation in the future.

This module was developed based on the live USEPA Headquarters' NPDES WET course that the Water Permits Division of the Office of Wastewater Management

has been teaching to USEPA regions and states for several years and with input provided by OECA. This course, where possible, has been developed with both the non-scientist and scientist in mind. Also, while not necessary, basic knowledge of biological principles and WET will be helpful to the viewer. Prior to viewing this course, a review of OECA's enforcement policies and guidance, and USEPA's NPDES Permit Writer's online course is recommended. These resources are available at USEPA's OECA and NPDES websites, respectively.

Now, Kathryn will review USEPA's approach to NPDES WET compliance and enforcement program, policies, and procedures.

Overview of USEPA National Policy and Guidance

- 1989: “Whole Effluent Toxicity Basic Permitting Principles and Enforcement Strategy”
- 1989: NPDES “Enforcement Management System”
- August 14, 1995: USEPA National Policy Memorandum

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Notes:

Thanks, Laura. This module is an overview of the USEPA’s Office of Enforcement and Compliance Assurance policies and procedures with respect to Whole Effluent Toxicity under the NPDES program. We will review three USEPA national policy and guidance enforcement documents, including the 1989 Whole Effluent Toxicity Basic Permitting Principles and Enforcement Strategy, the 1989 NPDES Enforcement Management System, and the 1995 USEPA National Policy Memorandum. Each of these documents will be discussed in more detail later in this module.

1989: "Whole Effluent Toxicity Basic Permitting Principles and Enforcement Strategy"

Key Points

- NPDES permits must be protective of State WET water quality standards and be written to ensure permit enforceability
- Any violation of a NPDES WET permit limit should be addressed promptly, and it may or may not result in a formal enforcement action
- A toxicity reduction evaluation (TRE) can be required through permit conditions or an enforcement action

Document URL:
<https://www.epa.gov/enforcement/whole-effluent-toxicity-basic-permitting-principles-and-enforcement-strategy>

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Notes:

The 1989 USEPA Whole Effluent Toxicity Basic Permitting Principles and Enforcement Strategy document discusses in detail key USEPA permitting and WET enforcement principles. The strategy was developed by a USEPA (Headquarters and regions) and state workgroup with the goal of promoting national consistency in the development of NPDES WET permit requirements and in the enforcement of those requirements.

Two of the key permitting principles included in this 1989 strategy document are that: 1) NPDES permits must be protective of state water quality standards; and 2) permits must be written to ensure enforceability. Therefore, all NPDES majors and minors of concern should have WET limits and requirements included in their permits where necessary to protect state WET water quality standards.

Some of the key enforcement principles outlined in this 1989 strategy are that: 1) the permittee is responsible for attaining, monitoring, and maintaining compliance with their NPDES permit and, ultimately, with the Clean Water Act; 2) USEPA or the NPDES-authorized state evaluates the permittee's compliance status by reviewing all available information, such as self-monitoring results reported on Discharge Monitoring Reports, or DMRs, inspection results, citizen complaints, and other information; and 3) USEPA or states identify violations of NPDES WET permit requirements, such as effluent limit exceedances, failure to monitor or report, and (if applicable) establishes compliance schedules and determines an appropriate response.

Requiring a Toxicity Reduction Evaluation may be an appropriate response to WET

violations if it is included in an enforcement action that includes implementation of controls to eliminate WET and also includes a final compliance date.

1989: NPDES "Enforcement Management System"

Key Points

- Any violation of a NPDES permit is a violation of the CWA, for which EPA encourages some type of enforcement response
- An escalating response to continued violations is recommended
- Enforcement response guidelines include:
 - Infrequent violation causing no known harm may result in a Letter or Notice of Violation (LOV or NOV)
 - Known harm or continuing violations may result in an Administrative Order (AO), Administrative Penalty Order (APO) or Civil Referral

Document URL:
<https://www.epa.gov/enforcement/enforcement-management-system-national-pollutant-discharge-elimination-system-clean>

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Notes:

The 1989 USEPA NPDES Enforcement Management System, or EMS, is USEPA's national comprehensive NPDES compliance and enforcement guidance that describes key principles of USEPA's compliance and enforcement program and includes enforcement response recommendations for different types of violations. The EMS was last updated by USEPA in 1989, and that included the addition of WET violations to the enforcement response guidelines. USEPA treats WET like any other pollutant parameter by considering all case-specific facts related to a non-compliance event, including the magnitude, frequency, and duration of a violation, associated environmental harm, and the compliance history of the facility. USEPA uses enforcement discretion in determining an appropriate enforcement response to violations. The response should reflect the nature and severity of the violations. USEPA recommends an escalating response to continuing violations. For example, a single or infrequent violation of a NPDES WET limit causing no known harm may be appropriately addressed by an informal action, such as a Letter or Notice of Violation, also known as a LOV or NOV, or by a formal action that does not include a penalty, such as an Administrative Order (AO). A stronger response, such as an AO along with an Administrative Penalty Order, also known as an APO, or a civil judicial action with a penalty may be appropriate for continuing violations or for violations causing harm, such as a fish kill.

Document URL:
<https://www3.epa.gov/npdes/pubs/owm602.pdf>

August 14, 1995: USEPA National Policy Memorandum

- Purpose**
 - To clarify existing OWM and OECA policies regarding single exceedances and inconclusive TREs
- CWA, Section 309**
 - Any violation of a permit limit or condition is subject to enforcement; EPA's guidance recommends an escalating response to continuing violations
- CWA, Section 505**
 - Allows citizens to sue anyone alleged "to be in violation" – case law
- Single WET Exceedance**
 - EPA's guidance does not recommend that the initial response to a single exceedance of a NPDES WET limit, causing no known harm, to be a formal enforcement action with a civil penalty

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Notes:

USEPA's Office of Wastewater Management and Office of Enforcement and Compliance Assurance issued a joint memorandum in 1995 in response to questions from the regulated community about USEPA's position with regard to enforcement of a single WET exceedance. This memorandum reiterated USEPA's existing guidance, including: 1) USEPA considers case-specific circumstances of violations and uses enforcement discretion to determine an appropriate response; 2) USEPA recommends an escalating response to continuing violations; and 3) USEPA guidance does NOT typically recommend that the initial response to a single exceedance of a NPDES WET limit causing no known harm be a formal enforcement action with a civil penalty. The memorandum also re-affirmed the Office of Wastewater Management's commitment to provide technical support to permitted facilities with inconclusive Toxicity Reduction Evaluations, or TREs.

A presentation slide titled "Compliance Monitoring" with a green header bar. Below the title, it lists "NPDES Compliance Inspection Manual" and "Chapter 8 – Toxicity" with a URL. It then states "Objectives of compliance monitoring (e.g., inspections, audits, records review, etc.) for WET may include:" followed by five yellow circles containing the following text: "Assessing compliance with NPDES permit conditions", "Assessing laboratory WET test performance", "Evaluating quality of self-monitoring data", "Assessing adequacy of self-monitoring procedures", and "Documenting presence or absence of measured effluent toxicity". The footer includes the USEPA logo, "USEPA HQ – NPDES WET Online Training Curriculum", and the number "7".

Compliance Monitoring

- NPDES Compliance Inspection Manual
 - Chapter 8 – Toxicity
 - <https://www.epa.gov/sites/production/files/2017-01/documents/npdesinspect.pdf>

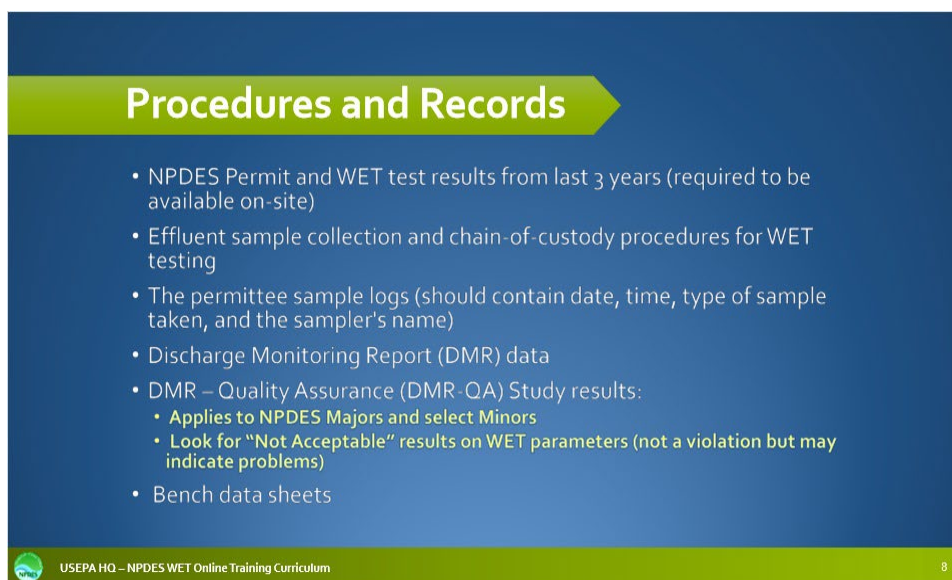
Objectives of compliance monitoring (e.g., inspections, audits, records review, etc.) for WET may include:

- Assessing compliance with NPDES permit conditions
- Assessing laboratory WET test performance
- Evaluating quality of self-monitoring data
- Assessing adequacy of self-monitoring procedures
- Documenting presence or absence of measured effluent toxicity

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Notes:

The USEPA Office of Compliance’s NPDES Compliance Inspection Manual includes a full chapter, Chapter 8, on Whole Effluent Toxicity. The chapter describes the objectives for compliance monitoring activities, such as inspections, audits, and records review for Whole Effluent Toxicity. These objectives may include assessing compliance with the conditions and limits in the NPDES permit; assessing laboratory WET test performance, including reference toxicant testing and other WET Quality Assurance/Quality Control or QA/QC requirements; evaluating the quality of self-monitoring data; assessing the adequacy of self-monitoring procedures; and documenting the presence or absence of effluent toxicity based on valid WET data. In addition to these objectives, inspectors may also identify the need, and recommend to enforcement personnel and/or the NPDES permit writer, to have the permittee perform TREs, or Toxicity Identification Evaluations, also called TIEs. The inspector may also identify NPDES permit terms and conditions that may not be adequate to ensure state WET water quality standards are met.



Procedures and Records

- NPDES Permit and WET test results from last 3 years (required to be available on-site)
- Effluent sample collection and chain-of-custody procedures for WET testing
- The permittee sample logs (should contain date, time, type of sample taken, and the sampler's name)
- Discharge Monitoring Report (DMR) data
- DMR – Quality Assurance (DMR-QA) Study results:
 - Applies to NPDES Majors and select Minors
 - Look for “Not Acceptable” results on WET parameters (not a violation but may indicate problems)
- Bench data sheets

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Notes:

Based on the USEPA's NPDES Compliance Inspection Manual, some examples of procedures and records that may be reviewed during an inspection include: the NPDES permit, WET test results from the last 3 years, effluent sample collection and chain-of-custody procedures for WET testing, and permittee sampling logs that should include the date, time, type of sample taken and the sampler's name. NPDES majors and selected minors must also participate in the Discharge Monitoring Report - Quality Assurance study annually, also called the DMR-QA. If available, DMR-QA results are useful to review because it is a laboratory proficiency program that assigns a grade of *Acceptable* or *Not Acceptable* to the lab's performance of USEPA WET tests.

Compliance inspectors should also review the following: WET test data interpretations, calculations, WET test concentration-response curves based on multiple concentration WET tests, whether the WET tests meet all of USEPA's mandatory Test Acceptability Criteria, or TAC, that are specific for each WET test method, and the Percent Minimum Significant Difference (PMSD) evaluation of WET test variability.

Questionable WET test data that may be recorded in acute tests include: higher mortalities in lower effluent concentrations than in higher effluent concentrations; complete mortality in all effluent test concentrations; and greater percent mortality in the control treatment than in the lower effluent test concentrations.

In chronic WET tests, questionable WET data that may need to be recorded include: greater growth or reproduction at higher effluent test concentrations than at lower

effluent test concentrations; no growth or reproduction in all effluent test concentrations; and less growth or reproduction in control treatments than in lower effluent test concentrations. When any of these irregularities occur, outside of experimental error, the WET data and test conditions should be carefully reviewed by the USEPA or state biologist and/or toxicologist. If WET test results do not meet the USEPA's WET test methods' TAC, the WET test should not be considered a valid WET test, and a new WET test with a newly collected effluent sample should be conducted.

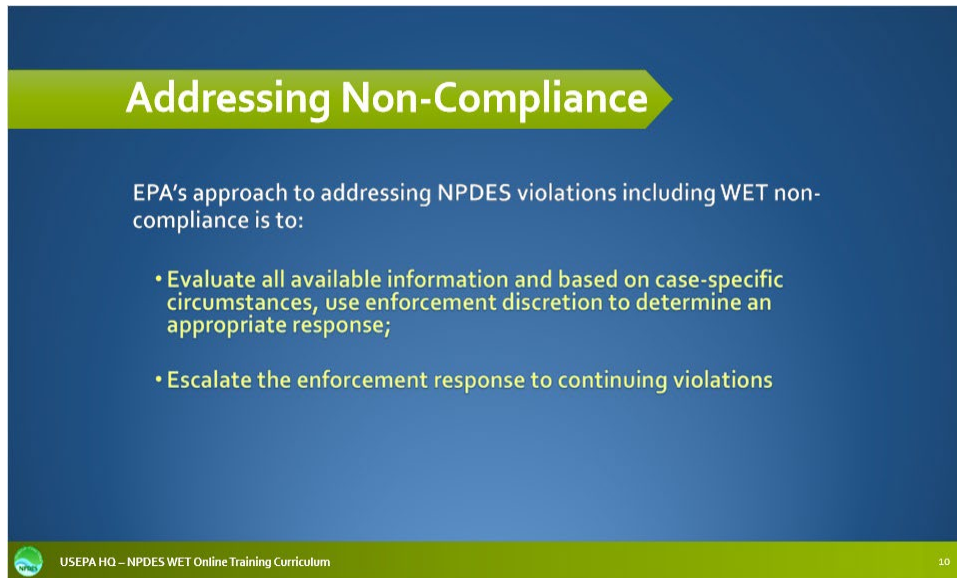
Examples of Non-Compliance

- NPDES WET effluent limits are exceeded
- Samples are not representative of the effluent
- WET tests are not performed as required by the permit
- WET test data from lab were reported incorrectly to the permittee and on the DMR
- WET test was not initiated within 36 hours of the first effluent sample collected
- Deviations from recommended EPA WET test conditions are not documented



Notes:

Some examples of non-compliance that may be identified as a result of the compliance inspection include: NPDES WET permit limits being exceeded; WET tests not performed as required by the permit; samples that are not representative of the effluent; WET test data from the lab was incorrectly reported to the permittee and on the DMR; WET tests not initiated within 36 hours of the first effluent sample collected, and any observed deviations from either the USEPA WET test methods, NPDES permit requirements, or recommended WET test conditions not documented by the laboratory.



Addressing Non-Compliance

EPA's approach to addressing NPDES violations including WET non-compliance is to:

- Evaluate all available information and based on case-specific circumstances, use enforcement discretion to determine an appropriate response;
- Escalate the enforcement response to continuing violations




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Notes:

USEPA's enforcement response to any Clean Water Act violation is case-specific, based on consideration of a number of factors including type, frequency, and magnitude of the violation, potential environmental or human health impacts, and compliance history of the facility. WET violations are not automatically flagged by USEPA's Significant Non-Compliance, or SNC, criteria in its national NPDES data system, the Integrated Compliance Information System, or ICIS, as a priority for formal enforcement action. So good communication between USEPA regional compliance officers, USEPA regional NPDES WET coordinators, and state permit staff is important in helping to identify and prioritize NPDES WET violations for appropriate enforcement response.

Extended Non-Compliance

- Enforcement Response
 - Extended period of evaluation
 - TRE/TIE
- Incentives to solve unresolved toxicity violation problem(s) may include a reasonable schedule to implement corrective measures
- EPA Region or NPDES State retains authority to assess penalties in cases of low activity compliance responses


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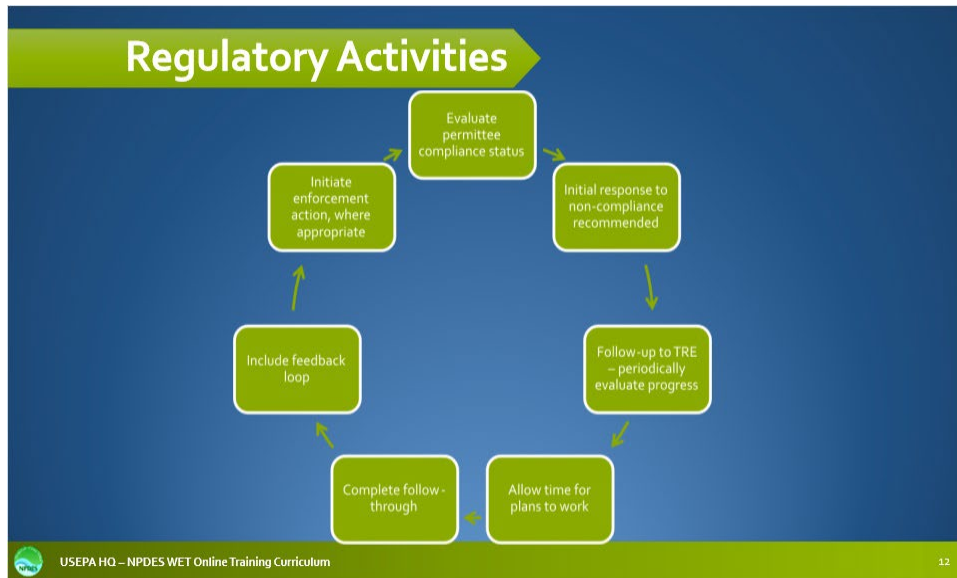
Notes:

In some instances, there may be extended non-compliance periods that may need an enforcement response, as well as incentives, to resolve the non-compliance. For example, intermittent violations of NPDES WET limits, with potential or known impacts, should be addressed by the permittee, and should be reviewed by USEPA or the NPDES-authorized state to determine an appropriate response.

Repeated, intermittent non-compliance may require an extended period of evaluation and problem solving by the permittee through the implementation of a TRE and perhaps a TIE. The NPDES permit regulatory process should acknowledge and accommodate attempts to resolve toxicity violations, when appropriate.

Incentives for the permittee to resolve non-compliance may include a mutually agreed upon, reasonable schedule, with an end date for the permittee to implement corrective measures to resolve the toxicity and return to compliance.

The NPDES regulatory authority retains its authority to assess penalties for a permittee's failure to move decisively to correct violations.



Notes:

Some of the activities the NPDES regulatory authority can do to encourage compliance with NPDES WET permit requirements include, if not already a permit requirement, suggesting that the permittee increase its WET test monitoring frequency to help the permittee determine the source of toxicity and, ultimately, to select and implement a remedy to achieve compliance. If the permittee is not responsive, USEPA or the NPDES-authorized state can require the permittee to conduct additional WET tests and a TRE, if needed, through an information collection request issued under Clean Water Act Section 308 or as a provision in an enforcement action. USEPA or the NPDES state should provide feedback, if requested, to the permittee on the proposed steps to implement a TRE, approve a reasonable timeframe for activities to occur, and verify that the permittee has completed the follow-up actions he or she selected to eliminate WET and achieve compliance.

Take Home Points

- Compliance is the responsibility of the permittee
- EPA's approach to NPDES enforcement involves an evaluation of all facts and information, use of enforcement discretion to determine a case-specific appropriate response to violations, and escalation of response to continuing violations
- Logical, step-wise approach to toxicity reduction that includes periodic feedback, follow-through and verification of completion should be used



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Notes:

In summary, compliance with all NPDES permit requirements, and ultimately with the Clean Water Act, is the responsibility of the permittee. USEPA's enforcement response to any NPDES violation, including WET, is determined after considering all the information available and the specific circumstances of the violation. During implementation of a TRE, communication between the USEPA or NPDES state, the permittee, and the permittee's consultant, if appropriate, should be frequent and open. It is important for USEPA or the NPDES state to follow through and verify the permittee's completion of the TRE and elimination of WET violations.


More Information


Water Enforcement Guidance, Policy, and Publications:

- <https://www.epa.gov/enforcement/water-enforcement-policyguidance-and-publications#National>

OECA WET Contact:

- Ivy Koberlein (koberlein.ivy@epa.gov)





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Notes:


All of the documents mentioned in this module and other enforcement and compliance information can be found on the USEPA's Office of Enforcement and Compliance Assurance web page at the link on this slide.

Feedback and Other Presentations

Questions or comments?
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Join us for other online presentations on
Whole Effluent Toxicity

<https://www.epa.gov/npdes/npdes-training>

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Notes:

Thank you for joining us for this USEPA's NPDES Whole Effluent Toxicity training presentation. We hope that you have enjoyed it!

If you have any questions or comments on this or any part of the USEPA's NPDES WET online training curriculum, click on the email address given on this slide to send a message to Laura Phillips or Jackie Clark, USEPA HQ NPDES WET Coordinators.

Remember, you will find all of the USEPA's NPDES WET online training presentations, under the USEPA's NPDES training section found on the Office of Wastewater Management's NPDES website.

See you next time!