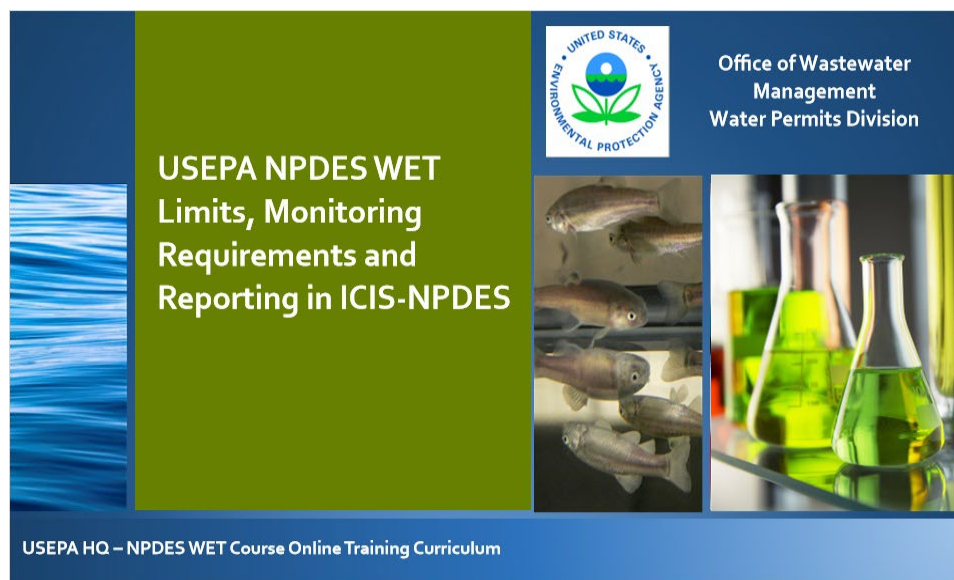


Module 11 - USEPA NPDES WET Limits, Monitoring Requirements and Reporting in ICIS-NPDES



Notes:

Welcome to this presentation on the United States Environmental Protection Agency's, hereafter EPA, National Pollutant Discharge Elimination System, or NPDES, Whole Effluent Toxicity, or WET, Limits, Monitoring Requirements, and Reporting in the Integrated Compliance Information System NPDES, or more commonly referred to as ICIS-NPDES. This presentation is part of a web-based training series on WET sponsored by EPA's 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 the series, which cover the use of WET in the NPDES permit program.

Before we get started with this presentation, I will make some introductions and then I have two important housekeeping items.

Presenters

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Notes:

First, the introductions.

Your speakers for this presentation are, me, Laura Phillips, and I am the EPA's NPDES WET Coordinator, and Jackie Clark, EPA's NPDES WET Coordinator with the Water Permits Division within the Office of Wastewater Management at the EPA Headquarters in Washington, D.C. Second, now for those housekeeping items. You should be aware that all the materials used in this presentation have been reviewed by EPA staff for technical and programmatic accuracy; however, the views of the speakers are their own and do not necessarily reflect those of EPA. The NPDES permit program, which includes the use of toxicity testing, is governed by the existing requirements of the Clean Water Act and EPA's NPDES permit implementation regulations. 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 EPA policy and guidance on WET in the NPDES permit program. EPA may revise and/or update the contents of this presentation in the future.

Throughout this module, the term "state" means a state, the District of Columbia, the territories including the Commonwealth of Puerto Rico, the United States Virgin Islands, Guam, American Samoa, the Commonwealth of the Northern Mariana Islands, and the Trust Territory of the Pacific Islands and Tribes (40 CFR Part 122.2). The term "authorized Tribe" means those federally recognized Indian Tribes with authority to administer Clean Water Act water quality standards, WQS, program. In some instance we may use the term "permitting authority" to include EPA, states,

territories, and Tribes that have been authorized to administer the NPDES permit program.

This module was developed based on the live EPA Headquarters' NPDES WET course that the Water Permits Division of the Office of Wastewater Management has been teaching to EPA regions, states, territories, and authorized Tribes. This course, where possible, has been developed with both the non-scientist and scientist in mind. Also, while not necessary, a basic knowledge of biological principles and WET will be helpful to the viewer. Prior to this course, a review of the EPA's NPDES Permit Writers' online course, which is available at EPA's NPDES website, is recommended. See the "Resources" tab for a link to the NPDES training website.

Now that you know who we are and we have covered the housekeeping items, let me turn this over to Jackie to go over EPA's NPDES WET Limits, Monitoring Requirements and Reporting in ICIS-NPDES.

The Integrated Compliance Information System (ICIS)

- ✓ ICIS (<https://icis.epa.gov>) is an information management system managed by EPA's Office of Enforcement and Compliance Assurance (OECA).
- ✓ ICIS-NPDES tracks permit and compliance data for facilities regulated under the NPDES program.
 - States and EPA can obtain access to enter, edit, and extract data.
 - Some states batch information while others enter it directly.
 - Required data were laid out in the NPDES Electronic Reporting Rule and subsequent updates, and can be found in Appendix A to 40 CFR Part 127.
- ✓ EPA has formed an ICIS Modernization Board aimed at defining new system requirements for future development.

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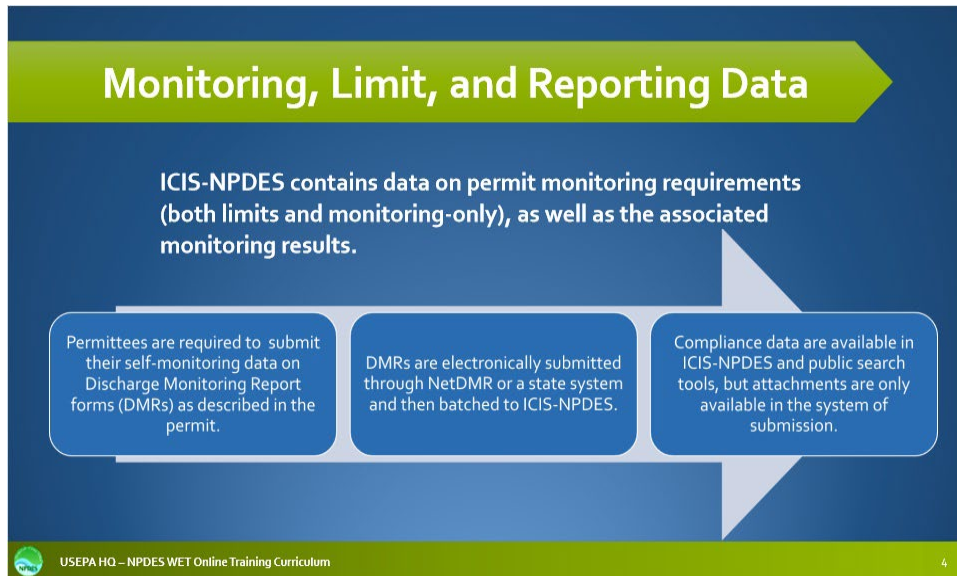
Thanks, Laura. EPA's Integrated Compliance Information System, or ICIS, is an information management system maintained by EPA's Office of Enforcement and Compliance Assurance, or OECA.

ICIS contains data for multiple EPA programs. ICIS-NPDES is the portion of the system that tracks permit and compliance data for facilities regulated under the NPDES program. This includes basic facility and permittee information, permit requirements such as effluent limits and required monitoring, discharge monitoring report data, and other compliance and enforcement-related information.

Both EPA and states can obtain access to ICIS-NPDES to enter, edit, and extract data. Some states maintain their own databases and periodically batch data from their system to ICIS-NPDES, while others use ICIS-NPDES directly.

Certain data are required by regulation to be entered into ICIS-NPDES. These data elements were specified in EPA's 2015 NPDES Electronic Reporting Rule and subsequent updates. The required data elements can be found in the code of Federal Regulations, in Appendix A to 40 CFR Part 127.

I also want to note that EPA has formed an ICIS Modernization Board with the goal of designing and developing an updated data management and sharing solution, but for now, I will speak about ICIS-NPDES in its current state.

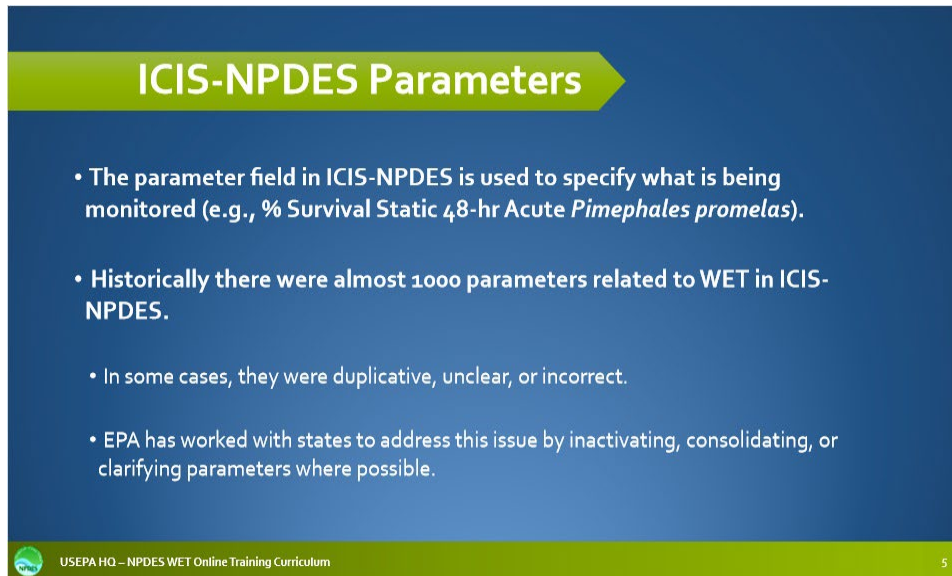


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Now let's talk about monitoring, limit, and reporting data in ICIS-NPDES. Permit monitoring requirements, effluent limitations, and discharge data are required to be entered in ICIS-NPDES. The NPDES permit will describe what monitoring permittees are required to conduct, what effluent limits apply to the facility, and how to report results on Discharge Monitoring Reports, or DMRs.

DMRs are required to be submitted electronically, either through EPA's NetDMR system, which feeds ICIS-NPDES directly, or through a similar state system that then batches to ICIS-NPDES. Compliance data are then available in ICIS-NPDES, as well as public search tools that display ICIS data.

DMRs themselves only contain the data required to be reported in the permit, which is generally summary-level data, for instance monthly averages or daily maximums for a certain period of time. The DMR would generally not contain details that you may want to review as part of the WET program, such as concentration response curves or test acceptability criteria. In many cases, the permit writer also requires the permittee to submit lab reports as an attachment to the DMR so that they can review this information. Currently, attachments to the DMR are only available in the system of submission and not in ICIS-NPDES itself or EPA's public search tools.



ICIS-NPDES Parameters

- The parameter field in ICIS-NPDES is used to specify what is being monitored (e.g., % Survival Static 48-hr Acute *Pimephales promelas*).
- Historically there were almost 1000 parameters related to WET in ICIS-NPDES.
- In some cases, they were duplicative, unclear, or incorrect.
- EPA has worked with states to address this issue by inactivating, consolidating, or clarifying parameters where possible.

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Notes:

The parameter field in ICIS-NPDES is used to specify what is being monitored and reported, for example: Nitrogen, Total as N; Biological Oxygen Demand (BOD), five-day, percent removal, or in the case of toxicity, something like percent survival, static, 48-hour, Acute *Pimephales promelas*.

In the past there were almost 1000 parameters related to toxicity available in ICIS-NPDES. Some of these parameters were duplicative with minor differences in things like the abbreviations used or appeared to be exactly the same but had different available unit codes. In some cases, NPDES WET parameters were unclear or not specific enough, making it difficult to know which WET parameter to select when entering permit requirements into the system, as well as hard to interpret and compare data nationally. We'll look at some examples of those parameters in the next slide.

EPA worked with states to address this issue and make toxicity reporting and data interpretation using ICIS-NPDES as simple and clear as possible. ICIS-NPDES has been updated to reduce and clarify toxicity parameters. EPA worked with states to ensure that the remaining parameters provide enough flexibility to meet the varying needs of permit writers across the nation.

Another important step to make toxicity reporting easier and clearer is to ensure that any new WET parameters being added to the system are not duplicative of existing parameters and include enough detail to be clearly interpreted. For instance, a parameter that simply says "Whole Effluent Toxicity" is not very clear. If possible, based on permit requirements, it is helpful to know certain details about

the toxicity requirement, such as whether the parameter is used for acute or short-term chronic testing, what test species is being used, and what test endpoint is required to be reported. Requests for new parameters of any type, including toxicity, now go through a quick check at EPA Headquarters before being added to ICIS to ensure that there are no duplicative parameters.

The key takeaway here is that it's important for permit writers to keep parameters in mind when writing a permit. Of course, you always want permit requirements to be clear, but it's also good to keep in mind how these requirements should appear in the database and to coordinate with your data entry team to ensure clarity and consistency.

Examples of Unclear or Duplicative Parameters Addressed

Parameter Code	Parameter Description	Changes Made
00187	Toxicity	Inactivate
03598	Toxicity	Inactivate
61423	Toxicity [chronic], Ceriodaphnia dubia	Edit to Toxicity [chronic], Ceriodaphnia dubia - Percent
61426	Toxicity [chronic], Ceriodaphnia dubia	Keep as is
TME3B	Ceriodaphnia	Inactivate
TAN6H	LC50 Statre 96Hr Acucyprinella Leedsi	Edit to LC50 Static Renewal 96Hr Acute Cyprinella leedsii
TBB6E	Noel Static 96Hr Acute Lepomis Macrochirus	Inactivate
TDN6E	Noael Statre 96Hr Acute Lepomis Macrochi	Edit to NOAEL Static Renewal 96Hr Acute Lepomis macrochirus

- A total of 493 parameters were inactivated and 262 were edited for clarity.
- As the need arises for new parameters, it's important to avoid the issues shown on this slide.

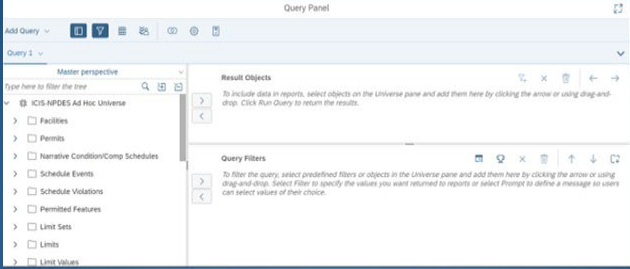


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On this slide, you can see some examples of toxicity parameters that were duplicative or unclear that we have addressed. In some instances, there were two parameters that appeared to be the same and it is not immediately clear why they were added to ICIS as separate parameters. Also, you can see that some of these WET parameters are not very descriptive. A couple simply say "Toxicity." It would be more informative if more details were available, such as whether this is for an acute or short-term chronic test, what test species is used, and what test endpoint is reported. A total of 493 parameters were inactivated and 262 parameters were edited for clarity. As the need arises for new WET parameters, it's important to avoid the issues shown on this slide.

Accessing ICIS-NPDES Toxicity Data

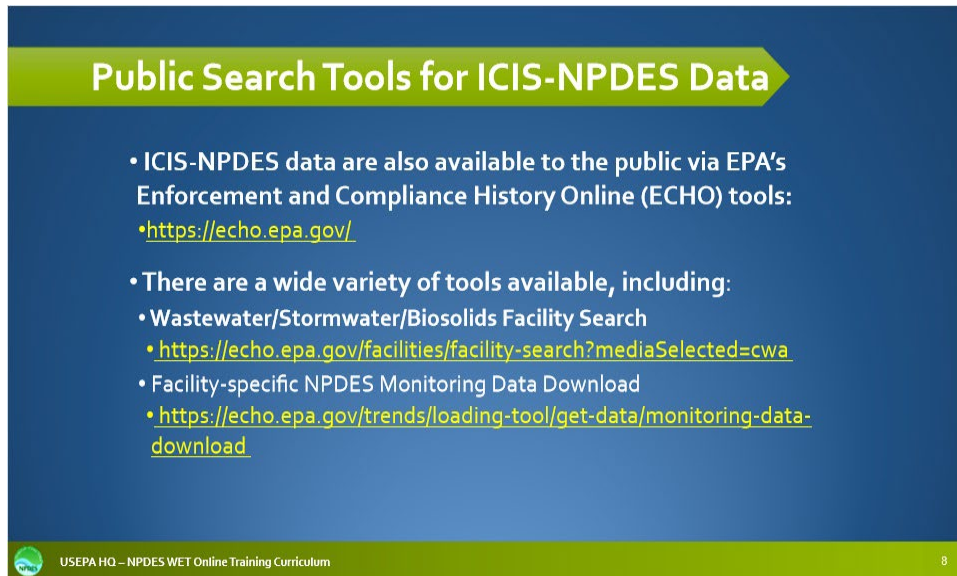
Currently, NPDES data can be extracted from ICIS-NPDES using Business Objects queries by anyone with ICIS-NPDES access.



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Notes:

Now that we've discussed what toxicity data are in ICIS-NPDES, let's talk about how you can access ICIS-NPDES toxicity data. In addition to searching ICIS-NPDES itself and accessing specific permit records, if you have access to ICIS-NPDES, you can extract data in customizable reports using Business Objects queries. These are accessed in the *Reports* section you see after logging in. By selecting to create a report using the *ICIS-NPDES Ad Hoc Universe*, you are taken to a screen like the one on this slide. You can drag and drop data fields from the list on the left into the *Results Objects*, which is the list of fields you want to appear in your report. You can also drag and drop fields into the *Query Filters* to limit your search based on the desired fields. After running the query, you can then download the resulting data into an Excel or PDF format to use as needed.



Public Search Tools for ICIS-NPDES Data

- ICIS-NPDES data are also available to the public via EPA's Enforcement and Compliance History Online (ECHO) tools:
 - <https://echo.epa.gov/>
- There are a wide variety of tools available, including:
 - Wastewater/Stormwater/Biosolids Facility Search
 - <https://echo.epa.gov/facilities/facility-search?mediaSelected=cwa>
 - Facility-specific NPDES Monitoring Data Download
 - <https://echo.epa.gov/trends/loading-tool/get-data/monitoring-data-download>

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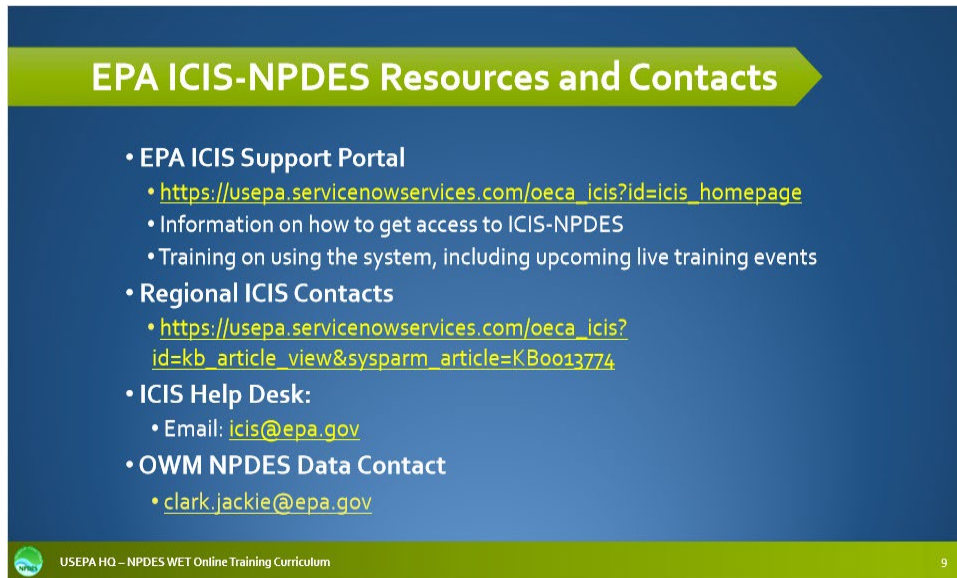
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If you do not have access to ICIS-NPDES, or you do not want to use the query features in that system, you can also access much of the ICIS-NPDES data through EPA's Enforcement and Compliance History Online, or ECHO, tools, which are available to the public.

There are many different features of ECHO, but I will highlight just a couple here. The *Wastewater/Stormwater/Biosolids Facility Search* allows you to search NPDES data by geographic location, community features, facility characteristics, enforcement and compliance status, environmental conditions, and pollutants. You can view search results on a map with summary data or in a facility-specific list. On the results page, you can add data to the results table, download the results, or dig down into more facility-specific information, such as limits, monitoring requirements, and reported discharge data, on a facility-by-facility basis.

Another tool, that permit writers often find very useful, is the *NPDES Monitoring Data Download*. This tool allows users to enter an NPDES ID for a single facility and a date range, going back as far as January 2007, and return an easy-to-read, downloadable Excel or comma-separated value, CSV, file showing permit limit and monitoring requirements and the associated discharge data reported on DMRs by outfall. Some permit writers use these as an attachment to a permit factsheet or as part of the permit record.

I encourage you to explore these features as well as the many others available in ECHO. These are a great resource for getting a perspective of the NPDES program on a national scale, as well as for detailed facility-level information.



EPA ICIS-NPDES Resources and Contacts

- EPA ICIS Support Portal
 - https://usepa.servicenowservices.com/oeca_icis?id=icis_homepage
 - Information on how to get access to ICIS-NPDES
 - Training on using the system, including upcoming live training events
- Regional ICIS Contacts
 - https://usepa.servicenowservices.com/oeca_icis?id=kb_article_view&sysparm_article=KB0013774
- ICIS Help Desk:
 - Email: icis@epa.gov
- OWM NPDES Data Contact
 - clark.jackie@epa.gov

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Notes:

As we wrap up, I want to share with you some helpful resources. If you have questions about ICIS-NPDES, you can check out the ICIS, NetDMR, NeT and ECHO Support Portal, linked on this slide. There you will find information on how to get access to ICIS-NPDES, helpful documents on using the system, recorded trainings, and information on upcoming live training events.

You can also reach out to your EPA regional ICIS contact. The list of regional contacts is available at the link on this slide. If needed, you can reach out to the ICIS help desk by emailing icis@epa.gov.

Also, please always feel free to reach out to me, Jackie Clark, at clark.jackie@epa.gov, with any questions about NPDES data.


Feedback and Other Presentations

Questions or comments?

Phillips.Laura@epa.gov
Clark.Jackie@epa.gov

Join us for other online presentations on
Whole Effluent Toxicity:

<https://www.epa.gov/npdes/npdes-training-whole-effluent-toxicity-training-and-videos>

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Notes:

Thank you for joining us for this EPA'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 EPA'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, EPA Headquarters NPDES WET Coordinators.

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

See you next time!