

# Transcript for Clean Water Act Data Flows Tutorial with Accessible Instructions

This tutorial narration is spoken over a video recording capturing movement on-screen. Actions are described within brackets.

## Introduction

ECHO data focuses on compliance and enforcement-related information for EPA-regulated facilities.

ECHO collects compliance and enforcement information from EPA as well as state, local, and tribal environmental agencies for environmental statutes - such as the Clean Air Act, Clean Water Act, Resource Conservation and Recovery Act, and Safe Drinking Water Act - that are reported into EPA national databases. ECHO also incorporates other EPA environmental data sets to provide additional context for analyses and compiles them into a single database known as the ECHO Datamart.

This tutorial focuses on Clean Water Act data. It explains how data are reported to EPA and how ECHO derives compliance history for National Pollutant Discharge Elimination System or NPDES permits for display on the Detailed Facility Report [*The Detailed Facility Report page is displayed*].

## Reporting to EPA

For facilities regulated by the Clean Water Act, EPA's NPDES e-reporting rule requires that facilities regularly submit Discharge Monitoring Reports, or DMRs, into an EPA-owned national database known as the Integrated Compliance Information System for NPDES.

Data can be transferred in several ways:

Facilities and states may submit DMRs through NetDMR via the EPA-state data exchange system called the Central Data Exchange, which transfers the information directly into the EPA database, or facilities may submit DMRs to the State who then sends the data to EPA through the Exchange Network and Central Data Exchange.

States also report information about inspections, violations, and enforcement actions electronically to EPA through the Exchange Network Node and Central Data Exchange or manually enter data through an online EPA form.

## EPA Processing

EPA's Integrated Compliance Information System for NPDES processes the data on a routine basis and generates violations as one of the following categories: Effluent violation; DMR non-receipt violation; Schedule violation; or Single Event Violation, which includes agency determined and self-reported violations.

Within each category the SNC, or significant noncompliance designation, indicates a violation that EPA or regulatory agency has defined as a severe violation.

Effluent violations are categorized as SNC by not meeting monthly or non-monthly average limits. This is based on the magnitude and frequency of the permit limit exceedance.

Some measured parameters, such as pH or bacteria counts, never automatically receive SNC status by the national data system.

DMR non-receipt violations trigger SNC if the facility fails to submit an entire DMR. These violations can be designated with the status “Failure to Report DMR – Not Received”.

Schedule violations are instances where a facility fails to comply with a required compliance schedule or permit schedule. These violations are designated as either “Compliance/Permit Schedule - Reporting” or “Compliance/Permit Schedule – Violations”.

Single Event Violations are agency determined violations which may be manually assigned an SNC status. Facilities may also be flagged for failure to submit reports other than DMRs, such as annual reporting for NPDES programs.

In addition to SNC, violations may be categorized as Reportable Noncompliance, or RNC. RNC may be triggered for certain circumstances, such as DMRs that are missing an entire parameter series, but not the entire DMR, or failure to submit a schedule event report within 30 days of the due date.

Any violation that is not classified as either SNC or RNC, is classified as “Other Violations”.

The EPA database assigns a facility level compliance status for each quarter [*The facility level compliance statuses are displayed on the screen in a table titled, “QNCR Quarterly Non-Compliance Status”. The statuses are Compliance/Permit Schedule – Violations, Effluent – Monthly Average Limit, Effluent – Non-monthly Average Limit, Compliance/Permit Schedule-Reporting, Failure to Report DMR – Not Received, Reportable Noncompliance, Other Violations, Blank – No Violation Identified, Resolved, Resolved Pending, Unknown/Undetermined, and Inactive*].

EPA runs this noncompliance process on a routine basis. State agencies can review and make manual corrections to the official facility compliance statuses.

### **ECHO Using the Data**

Now let’s look at how the ECHO Datamart maps NPDES compliance data to create the Three-Year Compliance History by Quarter table and the Enforcement and Compliance Summary table on the Detailed Facility Report.

ECHO groups violations into one of four compliance status categories based on the Quarterly Noncompliance Report, or QNCR, status. Note that implementation of the NPDES e-Reporting Rule will lead to a transition from the QNCR to the NPDES Noncompliance Report or NNCR, which may result in changes to how violations are categorized. ECHO then displays the compliance status on the DFR in the Three-Year Compliance History by Quarter or Month table in the Facility-Level Status row.

These statuses [*Compliance/Permit Schedule – Violations, Effluent – Monthly Average Limit, Effluent – Non-monthly Average Limit, Compliance/Permit Schedule-Reporting, and Failure to Report DMR – Not Received*] are grouped as SNC and colored red. The facility-level status row reads “Significant/Category I Noncompliance” [*A screen capture of the Three-Year Compliance History by Quarter Table is displayed. Quarters 1 and 3 are shaded red and read “Significant/Category I Noncompliance”*].

These statuses [*Reportable Noncompliance and Other Violations*] are designated “Violation Identified” and colored yellow [*A screen capture of the Three-Year Compliance History by Quarter Table is displayed. Quarters 11-13 are shaded yellow and read “Violation Identified”*].

These statuses [*Blank – No Violation Identified, Resolved, and Resolved Pending*] are designated “No Violation Identified” and colored blue [*A screen capture of the Three-Year Compliance History by Quarter Table is displayed. Quarters 2 and 4 through 10 are shaded blue and read “No Violation Identified”*].

An “Unknown” status [*Unknown/Undetermined*] is colored gray. An unknown status can result when compliance tracking is turned off at the time of the QNCR run.

For situations where a facility is not active - for example if its permit is terminated or pending – the appropriate status [*Inactive*] is displayed [*A screen capture of the Three-Year Compliance History by Quarter Table is displayed. Quarter 5 is shaded white and reads “Terminated Permit”*].

Quarter 13 is the most recent quarter. Violation data are available, but the official status has not been assigned. Therefore, ECHO applies specific logic to determine the facility-level status for Quarter 13 [*On the Three-Year Compliance History by Quarter Table, quarter 13 is shaded gray and reads “Undetermined”*].

If there are Effluent, Compliance Schedule, Permit Schedule, or Single Event Violations active during the 13th quarter, Quarter 13 will display “Violation Identified” and is colored yellow [*The QNCR Compliance Status Table is displayed and the red and yellow statuses are highlighted and labeled “Violation Identified”. A screen capture of the Three-Year Compliance History by Quarter Table is displayed. Quarter 13 is shaded yellow and reads “Violation Identified”*].

“Undetermined” is displayed in a gray box if there have been no violations identified [*A screen capture of the Three-Year Compliance History by Quarter Table is displayed. Quarter 13 is shaded gray and reads “Undetermined”*].

Next, we will look at how the Three-Year Compliance History table displays the NPDES Violation Data.

Effluent violations are displayed if the violation occurred within the 3-year timeframe shown on the table. They are indicated by displaying the highest percentage by which the permit limit was exceeded during the quarter.

ECHO provides a drilldown to allow users to see exceedances for the quarter by month. Bold, red print indicates that the violation is SNC [*On the Three-Year Compliance History by Quarter Table, in the quarter 12 drilldown, 300% is displayed in bold, red text with a gray background*].

For unresolved SNC violations the table cell is shaded gray. In the monthly view when DMR values are unavailable or there was no effluent exceedance, ECHO displays a blank cell [*On the Three-Year Compliance History by Quarter Table, in the quarter 12 drilldown, the cell displays “Oct:” with no percentage value*].

Compliance Schedule Violations or Single Event Violations are shown as a start date, followed by arrows in each quarter until the violation end date. For the violation to appear in this table, it needs to be “unresolved” during the three-year time period. This means that the violation was not resolved prior to the 1st quarter start date and occurred either on or before the 13th quarter end date [*On the Three-Year Compliance History by Quarter Table, in the row corresponding to a compliance schedule violation, quarter 8 contains a (violation start) date of 10/31/2017. Quarters 9 through 11 display arrows. Quarter 12 contains a (violation end) date of 10/26/2018*].

To provide more details about the compliance history, ECHO offers a monthly view of table on a rolling 12-month timeframe [*The top of the Detailed Facility Report page is displayed. In the Customize Report*

section, select “Monthly” option under “Compliance History Timeframe”. Using arrow keys, scroll down to the Three-Year Compliance History by Month Table. Use the “Select Timeframe” bar to scroll horizontally to view additional months within the timeframe].

Additionally, an option is available to download the compliance history data as a “csv” file for further analysis [Select the “Download Data” button on the top right of the Three-Year Compliance History by Month Table. A CSV file is displayed].

ECHO uses quarters 12 and 13 to determine the compliance status displayed in the Facility Summary [The Three-Year Compliance History by Month Table and the Enforcement and Compliance Summary Table is displayed]. If quarter 12 status is significant noncompliance, then ECHO shows “Significant/Category I Noncompliance” [In the Three-Year Compliance History by Month Table quarter 12 and 13 are circled. Quarter 12 is shaded red and reads “Significant/Category I Noncompliance” and quarter 13 is shaded yellow and reads “Violation Identified”. On the Enforcement and Compliance Summary Table, the Compliance Status is shaded red and reads “Significant/Category I Noncompliance”].

Otherwise ECHO displays either “Violation Identified” or “No Violation Identified” based on the quarter 13 status [In the Three-Year Compliance History by Month Table quarter 13 is circled. Quarter 13 is shaded yellow and reads “Violation Identified”. On the Enforcement and Compliance Summary Table, the Compliance Status is shaded yellow and reads “Violation Identified”].

On the DFR ECHO also provides information about benchmark limit exceedances, which indicate instances when pollutant concentrations exceed levels that could adversely affect receiving water quality. These exceedances are not violations, but rather indications of potential problems at the site. [A screen capture of the Three-Year Compliance History by Quarter Table is displayed. Under “Quarterly Noncompliance Report History”, “Benchmark Limit Exceedances (No Violation): Pollutant” is circled].

## **Conclusion**

This tutorial explained the flow of Clean Water Act data from initial reporting to display in ECHO. The techniques ECHO uses, including tables, colors and dates, to display the data are meant to help users quickly and easily digest a large amount of information to gain a complete picture of facilities’ compliance over time.

For more information see the help documentation on the ECHO website and the ECHO tutorials page [Select the Help button located on most pages within ECHO and press Enter].

Additional tutorials will explain the data flow for the Clean Air Act and the Resource Conservation and Recovery Act [Additional tutorials are available from <https://echo.epa.gov/help/tutorials>].