

Transcript for Advanced ECHO Webinar: ECHO Reports

February 27, 2018

Okay, well good afternoon and welcome to a presentation on the Environmental Protection Agency's Enforcement and Compliance History Online website.

Before we get started let's review a few housekeeping items. Audio is available for this presentation through your computers mic and speakers or by telephone. Your call-in number as well as your access code is in the "Control Panel" box on the right-hand side of your screen. All attendees have been muted to minimize background noise. If you have a question during the presentation, please type it into the "Questions" box on the upper right-hand side of your screen. We will have a dedicated time to answer questions at the end of the presentation. If you are experiencing any technical difficulties, please contact us and we'll try to troubleshoot the issues.

Please note that a survey will appear on your screen once today's presentation concludes. Your feedback is very important so please do fill out the survey when it displays on your screen and this will be after the webinar concludes. Today's presentation will include a live demonstration of the ECHO website followed by a questions and answers session. And now I'll hand it over to EPA to begin the presentation. Thank you.

Good afternoon. My name is Rusty Wasem and I am a member of the ECHO team in the EPA office of Enforcement and Compliance.

The purpose of today's training is to demonstrate how you can view detailed environmental information about facilities, permits, and enforcement cases through various ECHO reports.

However, I would like to take a few moments to introduce everyone to ECHO so that we are all at the same starting point. The U.S. Environmental Protection Agency provides public access to its regulatory compliance and enforcement data through The Enforcement and Compliance History Online, which we call ECHO.

ECHO data include how a facility is regulated, when an inspection occurred, whether violations were found and whether any enforcement actions were taken.

ECHO contains compliance history for more than 900,000 EPA-regulated facilities. This includes three-year compliance status and five-year inspection and enforcement history, as well as data for Clean Air Act stationary sources, Clean Water Act permitted dischargers, Resource Conservation and Recovery Act hazardous waste handlers and Safe Drinking Water Act public water systems.

ECHO itself is not a data system of record. ECHO pulls data weekly from several EPA program data systems, such as the Integrated Compliance Information System, the Resource Conservation and Recovery Act Information System, the Safe Drinking Water Information System, and the Facility Registry System. It also pulls select data from EPA's Envirofacts, including the Toxics Release Inventory and Greenhouse Gas pollutant release data. The About the Data page on the ECHO website provides links to the data sources themselves, as well as specific information on when the data are refreshed.

ECHO provides a variety of features to help you access and understand environmental data, such as the Facility Search and the Enforcement Case Search. You can use these various tools to search for facilities that match certain criteria and then drill down to the reports to view detailed environmental information.

Before we begin, please answer this poll question so we can get a sense of today's audience.

Yes, okay thank you so much and we just wanted to briefly pause to get your feedback on the poll. And we'd like to get your feedback on "How Often do you use ECHO?". And so what you'll need to do is just select one of the options that currently appear on the screen.

We are about to begin the live demonstration. As a reminder, please enter questions during the demonstration into the question box and we will answer them at the end.

We'd like to know if you use ECHO several times a month or more, several times a year, once a year or less, or you've never used ECHO before and we'll pause a little bit until we get all the responses we need and then we'll review the results. Okay just a couple more seconds. Okay, alright so it looks like the majority of the audience today uses ECHO several times a year, followed by several times a month or more and then never used ECHO before and then the least once a year or less. So, thank you so much for participating in the poll. Your feedback is really valuable.

Hey Rusty I think you're on mute. Okay I am not seeing your screen. Yup sorry about that, we're experiencing a temporary technical issue with the poll still staying on the screen. Let me see if I can get that to hide. Sorry about that. Okay I just refreshed the session so hopefully that unstuck the poll result. Sorry about that.

Live Demonstration

Thank you. Let's first look at all the reports available in ECHO. What do we mean we use the term "report"? A report is a webpage with detailed information about a facility or permittee. Reports are specialized to display different environmental information. Generally, reports are specific to data from one environmental program, but some reports cover enforcement and compliance data across environmental statutes. Each report type is represented by an icon, so you may easily identify it throughout the ECHO website. In addition, most reports have unique URLs, so users may save, bookmark, or link directly to the report for their facility or permit of interest.

How do you navigate to a report? From the ECHO home page, you can use various ECHO searches, such as the Facility Search or EPA Enforcement Case Search. After running a search, the relevant report icon will display for each record returned on the search results page.

Let's use the Facility Search as an example.

Let's click on the first link, "All Data" to search for facilities across all environmental programs. You could also use the other facility search types, which provide search criteria tailored to how facilities are regulated under each environmental statute.

Now suppose we are interested in facilities with severe noncompliance and that have had formal enforcement actions issued. We can select these two criteria directly from the “Enforcement and Compliance” section of the search form.

Let’s view the results on an interactive map.

Results are initially displayed in clusters by States on the map. Summary information about each cluster is displayed in the data table below. As you zoom further in on the map, or click on a table row, the clusters will dynamically refine from states, to show counties, ZIP codes, or individual facilities. The map and table will display individual facilities when the number of records is less than 500. Let’s drill down to view facility information for one state.

About 60 facilities meet our criteria in Arkansas.

Since we have less than 500 records, each row in the table provides information for an individual facility.

The Reports column displays the available reports for each facility. All facilities have a “C” Report icon, which represents the ECHO Detailed Facility Report. Other report icons are also displayed depending on the environmental statutes or programs that apply to the facility or whether data are available.

If you don’t remember what each report icon represents, you can mouse over the icon or go to the Reports Legend for names and descriptions of the report types.

Let’s look at the Detailed Facility Report or DFR.

The public can view compliance information for facilities that they may be interested in. Regulated facilities may use this report to check their compliance data as-reported to EPA for the last three years.

How do we read the DFR?

The report has six sections – “Facility Summary”, “Facility/System Characteristics”, “Enforcement and Compliance”, “Environmental Conditions”, “Pollutants”, and “Demographic Profile”. Generally, when reading the report from top to bottom, information will flow from overall summaries to more detailed information, split out by each environmental program.

The Facility Summary section provides an overview of the enforcement and compliance history for the facility for all statutes available in ECHO. The DFR links data across regulatory program databases using the Facility Registry Services ID or FRS ID). The FRS ID is a unique EPA identification number assigned to each facility which links across all environmental programs.

You may also access Related Reports from this section. All reports available for a facility in ECHO will be shown in this section.

The next two sections, “Facility/System Characteristics” and “Enforcement and Compliance”, display detailed information broken out by environmental program. The Facility/System characteristics section displays permit or program status, location, and industry information. In the Facility Address table, we can see how the name and address of this facility is captured across separate data systems.

The most detailed compliance information is found in this next section. The enforcement and compliance section provides information about inspections or evaluations at the facility, quarterly compliance status, and enforcement actions.

The “Environmental Conditions” sections provides contextual data about the environment around the facility, including waterbody impairments, waterbody users, and air quality standard nonattainment areas.

The “Pollutants” section displays information on pollutant releases to various media, where available, mainly from EPA’s Toxics Release Inventory. If we were looking at the DFR for a public water system, Lead and Copper concentrations from drinking water samples would be shown here.

The “Demographic Profile” provides additional contextual data on the characteristics of the population near the facility’s location.

The “Help” page provides information on how to navigate the report. For a concise overview of the DFR, we suggest viewing our short video tutorials. There’s a link to the tutorials in the “Useful Links” box.

In addition to the Help page, the Data Dictionary provides descriptions of every term on the DFR.

Let us move on to the next report, the Enforcement Case Report.

The Enforcement Case Report, represented by the “I” icon on the results page, provides details about criminal or civil enforcement actions entered into EPA databases. The sources of the case information are the Integrated Compliance Information System and the Summary of Criminal Prosecutions database. In general, EPA case data for any environmental statute date back to the inception of the source databases. State cases are limited to those related to Clean Air Act (CAA) stationary sources since 2015 and Clean Water Act (CWA) dischargers since 2012.

The “I” icon will display on the Facility Results page if the facility has ever had a formal enforcement action. This same “I” icon will be displayed in the Related Reports section of the DFR if the facility has ever had a formal enforcement action in the **last five years**.

The overlay shows links to all the available Case Reports by case number for the selected facility. You can distinguish the type of case (civil or criminal) by its case number. Civil cases generally have the lead agency either EPA Region or State as the first two characters of the case number. For example, all of the cases for this facility are civil, since the case numbers begin with either Region 06 or an AR for Arkansas. Criminal case numbers are identified in ECHO by a “CR” at the beginning, which we do not see for any of the cases listed for this facility.

From the Civil Enforcement Case report, you may view details of EPA or state administrative and judicial civil enforcement actions, such as penalties and actions that a facility may take under an order. Most data is available for EPA actions.

How do we read the Civil Enforcement Case Report?

At the top of the page, notice we have a common set of tools and links, similar to the DFR. Use the Data Dictionary to learn about each term on the report.

The “Civil Enforcement Case” section provides an overview of the case, including some key information such as case category, case status, outcome, penalties assessed, and a written summary.

“Laws and Sections” and “Citations” lists the specific sections, programs, and regulations cited as violated.

The “Facilities” table lists the facilities associated with the case. You can access the DFR for each facility by clicking on the FRS Number.

The “Defendants” table lists the individuals, companies, or other entities named in the enforcement action.

The “Case Milestones” table provides information about the status of each case by listing the dates that major case events occurred, while the “Related Activities” table provides dates of other activities associated with the case, such as inspections or compliance assistance.

“Pollutants” lists pollutant emissions associated with the enforcement case.

Next, we have the Final Order section, which describes the outcome of the case. Most cases tend to have one final order; however, some cases may have more than one, particularly with judicial actions involving multiple defendants. This section of the report will repeat for each Final Order.

This enforcement case has one Final Order. It provides basic identifying information, milestone dates specific to the Final Order, and dollar amounts for civil penalties, cost recovery, and the value of complying actions and supplemental environmental projects.

The “Pollutant Reductions” table provides an estimate of the environmental impact of the settlement on specific pollutant release. This example was a Clean Air Act case that required facilities to install or upgrade air pollution controls for Nitrogen oxides. The Final Order estimates that this will result in a reduction of over 3 million pounds per year of Nitrogen oxide emissions.

ECHO also has a separate report for Criminal Cases, which can be accessed in the same way as the Civil Enforcement Case Report.

Criminal actions are usually reserved for the most serious violations, those that are willfully, or knowingly committed. The Criminal Enforcement Case Report summarizes concluded federal criminal actions resulting from environmental investigations taken by the EPA. The Criminal Enforcement Case Report displays analogous information to the Civil Enforcement Case Report; however, data are from a separate data system.

Let us now look at reports that provide pollutant release information, starting with the Air Pollutant Report.

To access the Air Pollutant Report, select the “A” icon for a facility. This icon will display for any facility that has air emissions data in EPA’s National Emissions Inventory, Clean Air Markets Data, Greenhouse Gas Reporting Program, or Toxics Release Inventory.

The Air Pollutant Report presents ten years of EPA programmatic air emissions data for a facility. It provides a single source for users looking to understand a facility’s complete air emissions profile by consolidating emissions data from four different EPA inventories

Emissions are presented as facility totals and are organized by pollutant and EPA program. Descriptions of each reporting program and data fields are available in the Data Dictionary. Please note that each reporting program has its own scope, requirements, and timeframes, so data for the same pollutant and year may differ across programs.

So, how do we read the Air Pollutant Report?

The “Facility Summary” section provides basic information from the Facility Registry Services database. The “Emission Inventories” section displays the IDs of the air programs and inventories that the facility reports do. You can select which inventories you want to see data from. These checkboxes control what information is displayed in the “Emissions” section below. By default, all programs are selected.

The “Emissions” section contains several tables summarizing air pollutant emissions from various programs. The “Total Aggregate Emissions Data” and the “Emissions” tables displays data by either a pollutant category, such as Criteria Pollutants, or individual pollutants, like Lead, for each program for the last ten years. The “Trend Line” in these tables displays the annual information in a small graphical chart so users can more easily identify patterns in emissions over time.

The “Environmental Conditions” section provides contextual data about whether the facility is located within a nonattainment area. A nonattainment area is an area with air pollution that exceeds national ambient air quality standards as defined in the Clean Air Act.

In conclusion, the Air Pollutant Report collects data from four different EPA air programs into one report and is a good place to start if you are interested in facility air emissions.

What if you are interested in water discharge data? To access pollutant data monitored and reported by facilities regulated under the Clean Water Act, select “E” from the Reports column.

The Effluent Charts page presents dynamic charts and tables of point source discharges, including effluent limits, pollutant releases, and violations over time for Clean Water Act (CWA) wastewater discharge permits issued under the National Pollutant Discharge Elimination System or NPDES. This information is reported to EPA on Discharge Monitoring Reports or DMRs. Generally, NPDES permittees submit monthly or quarterly reports measuring pollutant concentrations or quantities in their wastewater. Reporting requirements, such as what pollutants are monitored and how often data are submitted are specified in each permit.

Members of the public can view this detailed discharge information to understand what pollutant amounts facilities are discharging. It also provides a visual way for facilities or permitting authorities to review their data.

How do we read the Effluent Charts?

There are several options available to customize the data displayed. The summary grid presents outfalls (or discharge points) across the top and pollutants vertically on the left. Boxes are displayed if the pollutant has either numeric permit limit or monitoring requirements for an outfall during the selected date range. By default, data are represented by the recent Compliance status however, you may switch this to the “Overall Compliance status” for the selected date range. The color of each box indicates the

most severe compliance status. (Blue equals No known violation, Yellow equals Noncompliance, Red equals Significant Non-Compliance or SNC). You can specify a date range for the data that you are interested in, up to 5 years back. Let's change the date range to show the last three calendar years.

Now, let's look at Chlorine discharges.

A graph will load below the summary grid. The dark blue line represents a limit and each point represents a measured Chlorine concentration. This chart is dynamic - you may toggle which data series display. You may also zoom in on an area of the chart by clicking and dragging. Select "Reset Zoom" to return to the original view.

On this chart, we can see that the limit became more stringent in 2017, and that the facility has exceeded the new limit. Select "Chart Legend" to learn more about the colors and symbols used on the chart.

From here, we can see that "Purple" and "Red" indicate types of violations, while "Blue" indicates no known violation. The triangle shape represents a measurement taken as a maximum. Additionally, the circles at the top of the chart represent missing or late DMRs.

You can view the detailed data by clicking the Show/Hide Table button above the chart

Or download the data for this specific pollutant and outfall by selecting "Download Data". These options provide additional detail from what is shown in the chart.

You can also download all data for this permit at the top of the page through "Download All Data". We have a short video tutorial specifically for the Effluent Charts. A link to the tutorial is available on the help page.

The Effluent Charts present all DMR data; however, ECHO also has a report that specifically displays data on exceedances of discharge permit limits called the Effluent Limit Exceedances Report. To access this report, let's first return to the results page.

From the results page, navigate to a facility's DFR.

Under the related reports section, select the "Clean Water Act Effluent Limit Exceedances Report".

This report presents detailed information about effluent exceedances of permit limits under the Clean Water Act NPDES permit program for a single permit.

This first section of the report displays basic facility and permit information.

Adjust the date range that controls the data shown on this report. Let's change the date range to be January 2015 to the present.

Next, we have the "Total Exceedance Counts" chart. This chart visually displays the number and days of exceedances for all pollutants monitored during the selected date range. The chart can also be adjusted to display the counts of violations.

The "Exceedance Counts by Pollutant" table displays a summary of the pollutants with effluent exceedances during the date range. The days with exceedances are derived based on the duration of the

limit. For example, weekly limits are 7 days, monthly limits are the number of the days in the specific month. This is described in detail in the help documentation.

Finally, the “Exceedance Details” table contains one record for each exceedance. Here, we have more information on the Chlorine exceedances that we saw on the effluent charts. This report also calculates the percent exceedance and a load over the limit, where applicable.

The Effluent Limit Exceedances Report is part of an ECHO Tool that focuses on wastewater discharge data, called the Water Pollutant Loading Tool.

The DFR also links to another Water Pollutant Loading Tool report, the “Clean Water Act Pollutant Loading Report”. This report presents detailed information about a single NPDES permit and pollutant loadings data by year. To learn more about the Water Pollutant Loading Tool and these reports, we recommend watching the recent “Intro to the Loading Tool” webinar, which is available on the ECHO Training page.

We also have other reports available in ECHO, such as this “State Facility Documents”. This report icon will display if any state or EPA documents are available for the facility. Document links are available for a limited number of programs and agencies, which are described in the data dictionary. EPA is working with environmental agencies to make more documents available.

Before we take questions, I’d like to summarize the key takeaways. ECHO provides specialized reports for environmental programs and environmental enforcement cases. Today, we looked the most popular and comprehensive report, the Detailed Facility Report, as well as the Civil Enforcement Case Report, and reports conveying pollutant emission information, such as the Air Pollutant Report, Effluent Charts, and the Effluent Limit Exceedances Report.

EPA is continually working to develop new features and add data to ECHO. We are developing a new report this year for information collected under specific NPDES Program Areas, such as the Biosolids program.

We’d love to hear your feedback. Please use the Contact Us link to provide suggestions at any time.

Now we are happy to answer your questions. If you have not done so already, please enter your questions into the chat box and we will respond to them as we are available.

Question and Answer

Thank you Rusty. Alright we have several questions and if anybody has any more questions please enter them into the questions box.

The first question is, how do you search for a specific public water system?

ECHO has a Drinking Water Facility search which you can access from the Explore Facilities panel on the ECHO home page. This will bring you to the Drinking Water Facility search form. From there you can enter in the Public Water System ID under the System Characteristics section of the search form. You may also enter the system name if you are unsure about the ID or if you don’t have that information and after searching the results will bring up any matching public water systems.

Okay, our next question is, are there TSCA lead based facilities covered in ECHO?

Most of the ECHO facility search covers four main statutes, but there is a way to search for TSCA facilities using the all data search. So, you can search specifically for facilities that have TSCA identifier and that's down in the next section, the Facility section of the search form. At the bottom it says Restrict by Media. ECHO also allows you to search for enforcement cases that are sited under TSCA, The Toxic Substances Control Act as well.

Our next question is which facility name will be listed in ECHO? Each ECHO facility can have multiple names under different statutes so which facility name will be listed in ECHO and why?

So, the facility name when you're conducting a facility search will differ depending on the search type. If you are looking at All Data, which is the most general facility search, we display the FRS facility name, but if you are using the specific search type for a specific statute, like the Clean Water Act will show the facility name specific to the data system that collects that information. When you are on the Detail Facility Report though as we showed you can see all the different facility names and a lot of the time they're pretty consistent. But if there are any discrepancies the DFR is a good place to go look and see how the facility name and address are entered in each system. And you can also look at the health documentation for each facility search which will specify the source of the information.

Our next question is, does ECHO have RSEI data or link to it from the facility?

The RSEI model is the Risk Screening Environmental Indicators Model. Which is a model that uses toxics release inventory data to look at chemical date and transport. And ECHO doesn't currently link to that information, but you could find some more information about that either on the RSEI website which is <https://www.epa.gov/rsei> or on the TRI website.

How far back does DMR data for wastewater effluent go in ECHO?

The effluent charts show up to the last five years of DMR data and if you're interested in data earlier than that, if you go to the ECHO Data Download of all the data that was collected in the source data system and that's available from the home page on the Data Downloads panel. So the Effluent Charts are a great site to go for DMR data for one facility and then the data downloads provide data for all facilities nationwide.

Who records the information, or I guess where does ECHO gets its information from?

ECHO pulls information from several EPA data systems. These are all listed as we're showing on the screen on the "About the Data" page. The main data systems we're pulling from are ICIS-Air for Stationary Sources, for Clean Air Act Stationary Sources, ICIS-NPDES for permittees under the National Pollutant Discharge Elimination System, RCRAInfo for Resource Conservation and Recovery Act and the State Drinking Water Information System. And the information from enforcement cases are coming from ICIS FE&C and the summary of criminal prosecutions databases and we have a wealth of information here on the "About the Data" page about each of these source systems.

Can you do a general search for all significant non-compliers?

Yes, you can. On the facility search I suggest using the All Data search since that will search across statutes and you can go to the Enforcement and Compliance section and look at the compliance status and adjust the slider here for the compliance status to be significant and then run your search with any other criteria you might be interested in.

Does ECHO display state wide trends of water pollutant discharges and can ECHO show the number of SNC of effluent SNC violations by year?

ECHO has, for some information on trends by year ECHO has some separate tools that we didn't demo today on the State Dashboard. And those are available from the homepage if you click on the Analyze Trends tile. You can look at the Water State Dashboard and that provides summary counts and trends for the last five years for different enforcement and compliance metrics. You can also get some of that information through the facility search if you're looking at specific facilities. And then you can always search by individual state for all the facilities within a state though the facility searches as well.

How do I search for criminal or civil enforcement actions against a facility within five years?

To search for Enforcement actions, you can use the Enforcements Case Search. The default for the Enforcement Case Search is actually all cases within the data system, but here we have many search criteria that kind of target cases of interest including a time period range and you can specify whether you are interested in civil or criminal and other attributes of the case.

Are facility Lat/Longs included in the facility search results?

Yes, they are. If you go to customize column there are a few dozen additional column available to let you see on the screen when you initially load the results and the latitude and longitude are one of many additional columns you can add. There are some facilities that don't have this information populating the source data and those... just to be aware of those facilities may have these cells blank.

Is it possible to identify all facilities that are in compliance or have violations for the lead and copper rule? I guess regarding drinking water facilities?

I believe so. If we go to the facility search we have some search criteria related to the lead and copper rule. I believe it's at the very bottom of the search form. Yes, so here you can look for, search for violation in the past few years or facilities with some sort of exceedance or one or the other.

Is there a day on which or time frame during which ECHO is updated with the most recent DMR data?

In general data are updated weekly. Typically over the weekend, but the most recent refresh date is listed on our "About the Data" page and DMR data are refreshed weekly.

We have several questions asking about how a facility can report an error in the data. So, if you suspect that there is an error you can use the report an error feature right at the top of any specific report in which you found the error. The corrections will then be submitted and routed to the Office of Environmental Information and an error correction process which the regional or state data steward will examine and correct the data. The error processing will typically will take a few business days depending on the availability of the information. If you want more details and instructions on how to report an error, you can go to the Resources panel on the ECHO homepage.

And we have several more questions. Are Clean Water Act and Clean Air Act data for all states included in ECHO?

Typically, yes. And the way that data are entered into EPA systems can vary between states. Sometimes if there is a particular known issue for a state we will post those issues. For example, if some data wasn't

transferring or was going to be late in transferring to EPA's data system, ECHO posts alerts about that information. There are no stats intentionally excluded.

Do facilities report to ECHO? What is the difference between the DMR and CDX?

Either depending on the environmental program the facilities or the permitting agency may report or enter data into a program system and then EPA, or ECHO then pulls data from that program system once a week to refresh the ECHO website.

Can ECHO provide specific effluent data such as TSS exceedances for multiple permit holders within a state and or region?

Yes. We are working on the Water Pollutant Loading Tool which is one of the features within ECHO which will very soon have a specific search to search for effluent exceedances and that will allow you to search specifically for a particular pollutant or a particular region. This is called the Effluent Limit Exceedances search and an alpha version of the search will be available within the next few weeks.

How do states get state documents up on ECHO?

If you're interested in linking information into ECHO use the "Contact Us" link at the top of any page and we'll put you in contact with specific EPA staff that can work on making that data available through ECHO.

I think we have time for about one more question.

Can you describe the quality assurance process for DMR data?

DMR data are sometimes entered by the facility or by the permitting agency and they are checked by each permitting agency as they are entered into the program system. I think the question had to do with quarterly compliance and unofficial and official quarters. The program system looks at compliance on a quarterly status which is typically a three-month period such as October to December of 2017 and assigns a quarterly status based on the number of violations or the number or severity of a violation that may have been found at that time. The quarterly status is based on the most official quarter and typically, that's the last full quarter or depending on the time of year it can be two or three months back. The DFR will show what the last official quarter is and that's what we term quarter 12. Quarter 13 is the most recent and unofficial quarter and that spans the beginning of, the end quarter 12 to the current data and that will become official typically within two or three months after the end of the quarter, but it depends on the data system. We have more information in the ECHO Frequently Asked Questions about quarterly compliance status or if you want have information you can use the "Contact Us" link.

I think that's all the questions we have time for today.

Okay, well this concludes our presentation unless EPA you all have any additional items you want to review. But just real quick I wanted to make sure to remind the attendees that there is that post webinar survey that will pop up on your screen and we are very much interested in getting that additional feedback from you so be sure to fill that out after the webinar concludes.

Okay, thank you all so much for joining.