

Transcript for Environmental and Compliance History Online (ECHO) Intro to ECHO Webinar - How do I Search For...?

February 9th, 2021, 1:30 – 2:30 PM EST

Good afternoon and welcome to today's presentation. Before we get started, let's review a few housekeeping items.

Audio is available for this presentation through your computer's 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 are interested in following along with the script for this webinar, please go to the "Handouts" tab on your toolbar. You will then be able to download and read the script.

A recording of the webinar will be available on the ECHO website in the next week. EPA will also post the presentation slides and a transcript.

If you have a question during the presentation, please type it in to the questions box on the upper right-hand side of your screen. We will have dedicated time to answer questions during the presentation. If you're experiencing any technical difficulties, please contact us and we'll try to troubleshoot the issues.

Lastly, a survey will appear on your web browser at the end of the webinar, so please make sure to provide your comments and feedback to us. And with that, I'll pass it on to our first speaker Amanda Speciale.

Hi everyone, my name is Amanda Speciale and I work for Eastern Research Group, supporting the ECHO website. I'd like to welcome you to the Introduction to ECHO series of webinars, which provide basic demonstrations of searching and navigating the ECHO website. Today we're going to demonstrate a collection of examples of the ECHO Facility Search, which address common questions from new and experienced users. Please feel free to submit any additional questions into the question box and we will leave some time to answer them at the end of the webinar.

First, I would like to introduce everyone to ECHO to make sure we are all beginning from the same starting point. The U.S. Environmental Protection Agency (EPA) provides public access to its regulatory compliance and enforcement data through the Enforcement and Compliance History Online website, which we call ECHO.

Data included in ECHO indicate how a facility is regulated, when an inspection occurred, whether violations were found and whether any enforcement actions were taken.

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

Data are reported by EPA and state and local environmental agencies. ECHO also includes EPA enforcement action data under other statutes.

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 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 data are refreshed.

ECHO provides a number of features to help you access and understand environmental data, such as the Facility Search and Enforcement Case Search. You can use these tools to search for facilities that match specific characteristics of interest and then choose specific reports to view detailed environmental information.

We would like to remind you to enter any questions you have into the question box. We will have a question and answer session at the end of the presentation.

Okay, let's begin the live demonstration...

We will demonstrate how to use ECHO to answer common user questions. Let's start on the homepage...

How do I search for a specific facility?

The first way to search for information about a facility is by using the "Quick Search" on the ECHO homepage. This takes you directly to a map and table of matching results. The homepage Quick Search is a fast and easy way to run an ECHO search if you know the name or ID of a facility of interest.

Alternatively, you can perform a search by clicking on the "All Data" link to bring up the full search form.

What if I cannot find a facility by name?

Facilities sometimes are known by different names, so it is helpful to try some search variations. There are some things you can try:

You can change the Active/Operating option from "Yes" to "Any"; The full search form automatically defaults to search only for facilities that are designated as Active, so removing this criterion will search all facilities in the ECHO system. This is a common reason why facilities do not show up in search results, so we always recommend trying this first.

Facilities may also go by different names or may be spelled differently than you expect. You can try to truncate the name to the first five or six letters.

If the facility has multiple words in the name, try searching by just one word.

You might also try searching by location only, for example, by ZIP code (or city and state) and see if the facility comes up in the results; or,

Type in the previous name of the company (if there has been a recent change).

How do I search by geographic location using Latitude and Longitude?

Start on Hazardous Waste Search, in the Geographic Location section, select “View More”. This allows us to see additional search criteria options.

So, for this example, let’s search for Hazardous Waste facilities near Atlanta, GA using latitude and longitude.

As a note, you can also allow the site to use your location (for example by using the GPS on your mobile phone), and it will create a radius around that location.

The search results show a list of facilities and their locations on the map.

What is a Hazardous Waste Facility?

It is a facility regulated under the Resource Conservation and Recovery Act (RCRA) Subtitle C Hazardous Waste Program. It is a facility which handles solid waste materials known to be hazardous (meaning that it is dangerous or capable of having a harmful effect on human health or the environment). The facility may generate, transport, treat, recycle, store, or dispose of hazardous materials.

What do the symbols on the map represent?

Click on the Map Legend to learn what the symbols and colors represent.

The flags or map pins indicate four pieces of information using the stripe color, body color, icon numbering and icon size.

Can I modify the criteria to further focus on an area?

Yes. The map initially displays results based on the search criteria entered. You can use the “Zoom to” feature to zoom in further on an area of interest, for example, North Decatur, Georgia.

When the “Sync Map and Table” button is selected, as you adjust the zoom on the map the table will automatically update to display only the facilities currently visible on the map.

For our next example, let’s search for a specific type of hazardous waste facility.

So, where are the Hazardous Waste Treatment, Storage, and Disposal Facilities or TSDFs in my state?

To answer this question, we need to specify the state and designation of the facilities we are interested in. Let’s go back to the Hazardous Waste Search form and clear our previous search criteria.

Under the Geographic Location section, select the State as Maryland and under Facility Characteristics section, select the Universe of Operating TSDFs.

The results show TSDF facilities in the state of Maryland.

Alright, let’s return to the homepage for our next example.

How do I find facilities with recently identified violations near my community using the map?

We can start our facility search using the map by clicking on “Map Any Facilities with Enforcement and Compliance Data.” This is a nationwide map of all the ECHO facilities. We can specify criteria directly on

this page to refine these results. So, our question is, how do I find facilities with recently identified violations?

On the Current Search panel, check “Facilities with Significant Violations”

Data are clustered by state on the map, let’s look at Arkansas.

Now we see pins for each facility. As indicated by the top stripe color on each pin, facilities may be regulated under one or more statutes. Let’s use some of the features in the filter facilities panel on the right side. Let’s look only at facilities with Air IDs (regulated under a CAA program).

When we use the Filter Facilities panel, the map and table dynamically update. You can choose whether to show only those facilities matching your criteria. If we uncheck “only show matches”, we also see those facilities that do not meet these criteria. They are “grayed out” or dimmed in the results table and map.

Our next question is...

How would I use ECHO to determine the facilities in my state that have been inspected recently by the state environmental agency?

Go to the All Data Facility Search.

In Geographic Location section, choose the State as Virginia.

Scroll to the Enforcement and Compliance section. Under Time Since Last Inspection choose “Within” 1 year and the Agency as State.

On the right panel, select “view results as data table.” Note that selecting this option will return results only in a table and not display the map.

Now, let’s run the search.

On the results page, we see the number of facilities with any inspection in the last year conducted by the state. Under customize columns, we have two additional columns of interest – “Days Since Last Inspection” or “Date of Last Inspection.” We can check these to add them to the results table.

Let’s sort on “Days Since Last Inspection” by simply clicking on the column header. We can see the facilities most recently inspected in Virginia by the state environmental agency.

How do I learn more information about a facility that appears in the facility search results?

Once on this page, click on the table row associated with the facility. The “Facility Summary” panel on the right side of the screen will expand.

Click on the Facility Name or “C” report icon to open the Detailed Facility Report (DFR). This is the first report you should look at for more information about a facility. We’ll look at this report in a later example.

What do the icons under the “Reports” column mean?

These icons represent the reports available for a particular facility. To see the name of a report, you can hover your mouse over the icon or click on the “Reports Legend” button on the top right of the table to see an explanation for all types of ECHO reports.

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.

To learn more about the information in specific reports, we recommend viewing the recording of a webinar we gave earlier entitled, “Advanced ECHO Webinar: Reports.” You can find it on the ECHO Training page.

Alright, let’s start from the homepage for our next example, and click on the Water Facility Search.

How can I search for wastewater treatment plants or POTWs?

The Water Facility Search looks for facilities that have a NPDES permit. Any point source that discharges pollutants to a water of the US is required to have a pollutant discharge permit.

We often receive questions about how to search for wastewater treatment plants and wanted to share a few strategies, since users may define this universe of facilities differently.

One way to search for different types of facilities is to use industry classification codes. For the Water Facility Search, we recommend using SIC codes to search for particular industries. For example, SIC Code 4952 represents sewerage systems (establishments primarily engaged in the collection and disposal of wastes through a sewer system). Let’s do a search for facilities in Maryland with SIC code 4952.

We can use Customize Columns again to add some related fields - SIC Code, Facility Type, and Permit Components.

Facility Type gives you additional information about the sewerage system. It indicates the ownership type in EPA’s source database. Facilities could be classified as publicly owned treatment works (POTWs), non-POTW, federal, or state. POTWs are sewerage systems owned by state, tribal, or municipal governments. Non-POTWs that have SIC code 4952 are typically smaller, privately-owned systems, serving schools or campgrounds.

As a note, Permit Component is the third field that can identify POTWs.

Additionally, we offer two flow fields in Customize Columns.

Facility Design Flow and Actual Average Facility Flow. These are flows that were included on the facility’s NPDES permit application.

Our next example is...

How do I search for drinking water systems with specific types of violations?

For this example, we’ll use the Drinking Water Search Type. Let’s search for larger drinking water systems with reporting violations. We can approximate the size of the system using the number of people served. Let’s select “100,001 – 1,000,000” and “More than 1,000,000”.

In the Enforcement and Compliance criteria, select “Monitoring and Reporting Violations”.

The results show a list of systems that either failed to conduct regular water quality monitoring or did not submit monitoring results in a timely fashion to the drinking water environmental agency.

Select the Facility Name to view the DFR.

The DFR presents detailed enforcement and compliance information for a facility. It is organized into six sections, with the Facility Summary providing summary information for the main statutes available in ECHO.

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.

In the Enforcement and Compliance section, the “SDWA Violations and Enforcement Actions (5 Years)” table may have more detailed information on the monitoring and reporting violations we searched for.

While we are looking at the DFR, we want to point out the ability to report a data error using the button at the top of the report. If you suspect that there is an error in the data shown, such as an incorrect date or facility address, you can use this button to submit a report to EPA. EPA or a state environmental agency will review and correct data, as appropriate.

Let’s answer another common user question, which is...

How do I find visual depictions of data that track both facility and regulatory agency performance?

Let’s look at Drinking Water data in another way. In addition to the Facility Searches, ECHO offers several dashboards that visually depict enforcement and compliance data over time.

The Dashboards can be accessed from the ECHO homepage by selecting “Analyze Trends” from the navigation menu. The Dashboards are arranged by program and include Air, Drinking Water, Hazardous Waste, Pesticides, and Water. Let’s take a closer look at the Drinking Water Dashboard.

The Drinking Water dashboard presents interactive charts describing Public Water Systems, Site Visits, Violations, Serious Violators, Enforcement Actions, and Return to Compliance. The charts allow metrics to be monitored and displayed at a summary level, while offering supporting data at a more granular level.

This dashboard has two different views. The Activity Dashboard presents statistics on inspections, violations, and enforcement actions. The Performance Dashboard presents rates of activity, state-level statistics, and comparisons to national averages.

For this example, we’ll review the Violations chart on the Activity Dashboard. Let’s also select the state of Alabama as our search criterion. We are interested in the Public Water Systems with Health-based Violations.

This chart tells us the number of systems over the past ten years with violations related to health criteria. Clicking on an individual bar displays underlying data.

By clicking on the bar for federal fiscal year 2020, we can drill down to review the list of facilities with health-based violations in this year.

To further refine searches on the Drinking Water Dashboard, you can access additional criteria by changing “View Search Criteria” to “Advanced”. This provides the option to filter the charts on four additional criteria: EPA Region, Public Water Supply size, Water Source, and Public Water Supply type.

Now, let’s take a look at the State Air Dashboard. EPA recently redesigned this dashboard, as well as the Hazardous Waste dashboard.

The Air Dashboard allows users to track both facility and environmental agency performance over time related to administration of and compliance with environmental standards established by the Clean Air Act. Data are refreshed on a weekly basis.

We can see that this dashboard is organized in a similar structure as the Drinking Water Dashboard but tailored to air compliance and enforcement data. The Air Dashboard includes interactive charts describing Facilities, Compliance Monitoring Activities, Violations, Enforcement Actions, and Penalties over the last ten federal fiscal years.

You may filter your search by geographic, agency, and facility characteristics.

One useful feature that the redesigned dashboards have is called “Tour this Dashboard”. The tour shows, step-by-step, the location of and how to use the dynamic components within the page. You can go through the tour at your own pace to learn more about how to interact with the dashboard. For example, this step explains how to select and apply values from a filter dropdown menu.

If you have any questions about the dashboards, you may click on the “Help” button to view more detailed documentation. The help page goes into more detail (than we have) about data sources, using the dashboards, and chart types.

Let’s go to the Water Facility search for our next example.

How do I search for facilities releasing a specific pollutant?

We can use the water facility search to find facilities in Alabama that report wastewater discharges with Chlorine.

In the Pollutant section, type “chlorine” into the pollutant search box. The dropdown will automatically show matching values as you type.

Note: You can also search for specific pollutants or contaminants on the Air facility search and Drinking Water Facility search.

Let’s select “Data Table” results view and click Search.

The results show facilities matching our criteria. To learn more about the specific pollutant discharge data, select the Effluent Charts Report (“E” report icon).

The Effluent Charts page presents dynamic charts and tables of permitted limits, reported releases and violations over time for Clean Water Act (CWA) wastewater dischargers.

On this page, select “Chlorine, total residual” from the summary grid.

On the chart, we can see the Chlorine concentrations reported over the last three years. The lines represent the numeric limits for chlorine in this facility’s permit. The points represent discrete measurements of chlorine over time.

Let’s go back to the All Data Facility Search for our next example.

How do I find facilities that report to the Toxics Release Inventory?

TRI tracks the management of certain toxic chemicals that may pose a threat to human health and the environment. U.S. facilities in different industry sectors annually report how much of each chemical is released to the environment (air, water, or land disposal).

To be clear, chemical releases are not a measure of compliance. Including this information on ECHO provides context about the facility.

The “Pollutant” section of the Facility Search form has options to search for facilities reporting to TRI and by the amount of chemical released.

If you are interested in *any* facility that reported to TRI, use the All Data search.

If you are interested in a particular environmental release (air, water, land/hazardous waste), select one of these search types.

For example, let’s search for Water Facilities that reported “direct” discharges, which are discharges to surface waters, such as rivers and lakes, over 10,000 pounds. Let’s use the data table view.

On the results page, go to customize columns and select TRI Surface Water Releases column to view the pounds of chemicals released to surface waters in the most recent reporting year, 2019.

Note that not all facilities report to the TRI Program. You can refer to the **Results Guide** for more detail about TRI and any of the information presented on this page.

Our next question is...

How do I search for releases of air pollutants?

Go to **Air** Facility Search, set the State as Utah.

In the Pollutant section, let’s select “Has EIS ID”, the Year as 2014, and the NEI Emission Category as Particulate Matter (PM).

What is the NEI?

The National Emissions Inventory is a comprehensive and detailed estimate of air emissions of criteria pollutants, criteria precursors, and hazardous air pollutants from several sources. ECHO Facility Search includes data from stationary point sources, such as industrial or commercial facilities.

What is PM?

Particulate Matter is a mixture of small particles and liquid droplets in the air. PM can cause reduced visibility or haze in some parts of the country. Since they are small enough to inhale, exposure to PMs can lead to respiratory health issues.

On the results page, let's hide the table to see a larger map.

Let's add a layer to our map. Select Nonattainment Areas by Pollutant.

We can see an area of nonattainment for PM (10 μm), which is blue.

What is nonattainment?

An area in the U.S. that does not meet one or more of the National Ambient Air Quality Standards for six commonly found air pollutants, designated in the Clean Air Act. You can learn more about nonattainment areas on EPA's website.

This concludes our demonstration.

I pointed out a couple of help pages during this webinar, and I'll mention them again. ECHO has extensive help documentation. Look out for the help links here on the homepage and on each application page.

Furthermore, if you have a question that is not answered by the help pages, you can reach us using the Contact Us link, which is available at the top right of every ECHO page.

A recording of this webinar, as well as the presentation slides and transcript, will be posted to the ECHO Training page.

In addition, we recommend viewing our short video tutorials.

We have included links to these help pages and to various other guidance pages in today's webinar slides.

Now let's take your questions.

Q&A Session

Thank you so much, Amanda, really appreciate it. We have several audience questions, so we will try our best to answer as many as we can in the time that we have. The first audience question—someone asked, "Does this system identify brownfield sites?"

Thanks, Colby. The ECHO website does not have information about brownfields at this time. But you can find more information about brownfields on a separate EPA tool called "Cleanups in My Community."

Great, thank you. Another person asked, "How can I find out what a permit was for?"

Sure, so it depends on which environmental media you are looking for. But let us say you are looking for a NPDES permit, which permits wastewater discharges. You can look at some of the reports that we looked at such as effluent charts, the effluent, and the detailed facility report and some related information to see what permit requirements are in place. And then the effluent charts provide the information about discharges that were set by those permit requirements. Another report that we did not go over in detail today is that we have an air facility report, and that provides information about

facility emissions for different programs. I would refer you to some of our other past trainings. We have some advanced trainings specifically on reports, or air and water, that you can look at to get a deeper dive into some of the emissions information available through ECHO.

Great, thank you. Another audience question here—someone said, “Federal facilities, specifically military installations, are sometimes difficult to find in ECHO. Are there any specific tips to aid with that issue?”

Yes, could we go to the “All Data” search form? OK, and then “View More Criteria” and scroll to “Facility Characteristics.” So, this is a good question; we have two search criteria: federal agency and federal facility in FRS. These two search criteria search across different data systems. One is the facility identified as federal FRS, and the other one is a federal agency within some of the other data systems. For military facilities, you can scroll down to the codes that start with D, and there are different codes for Department of Defense that you can search on in this list, and you can choose one or more federal agencies. So, this would be one way to search for facilities within a particular agency. And if you want to do the widest possible search on federal facilities, you can select both federal agencies, and then that “Or” button and also check federal facility in FRS. So, this will look across the data systems to see if there is a federal facility in both FRS and other data systems. I suggest starting there or also using the tips we showed you for facility name as well. Thanks.

Great, thank you, Eva. Another audience question—someone asked, “How do you get a detailed list of permit violations for a specific facility over a period of time such as one to three years?”

I would direct you to one of the detailed facility reports. For any permit, I would look at the enforcement and compliance section. That will list any noncompliance over the last three years. And there will also be links to some more detailed information where it is available.

Thanks. Another audience question—someone asked, “How quickly is the database updated to reflect current reporting data?”

That is a good question. Data are typically updated weekly, typically over the weekends, with the exception of drinking water, which is updated quarterly. And you can go to ECHO’s “About the Data” page, under the “Help” section, and you can see the date that the data were last refreshed.

Great, thank you. Another audience question—someone asked, “Can someone search by facility owner?”

We do not have a specific criterion to search for an individual owner at this time, but you could try using the name of the individual. You could also try using the facility name in case part of the name is included in the facility’s name itself.

Thank you. Another audience question—someone asked, “How do we search for facilities with violations that are in low-income or environmental justice communities?”

That is a great question. Let’s go back to the “All Data” search. If you collapse all sections and let us go down to “Demographic Profile” and expand that. Here we have several criteria that you can use to narrow down your list of facilities. You can search for facilities located within an area by the percent minority or population density. Or you can use what we have called environmental justice indexes, which come from EPA’s EJ Screen Tool, which identifies areas with different environmental indicators—

some for air, some for water, some for land—that might identify areas which are census block groups and identifies areas that might warrant further analysis for environmental justice concerns. On the search itself, there are 11 different indexes. You can search here to find facilities in areas that might have one or more indexes above the national 80th percentile. On the search form, you can see the percentile value associated with the area the facility is located in. I would encourage you to look at our help documentation to better understand what the indexes can tell us and the considerations in using this information or also to check out EPA’s EJ Screen Tool directly.

Great, thank you, Eva. Another audience question—someone asked, “Can you please show what capabilities ECHO has to show past waste generation types for EPA ID-numbered facilities, especially those that have generated waste for decades past?”

On the hazardous [waste search] form, we have the universe criteria in “Facility Characteristics,” which gives a little information about the type of facility and the size, large quantity generator, small quantity generator as an example. And in terms of emissions or waste generation, we also have search criteria for TRI releases associated with that facility. And you can search for a particular year when a release was reported. On ECHO, we provide the last 10 years of TRI data. But EPA’s TRI website has information going back about 30 years—so more historical information from the TRI website.

Great thank you Eva. Another audience question—someone asked, “How do you search for municipal POTWs?”

We want to look at the water search, and in “Facility Characteristics,” we can search by permit component. There is a specific value for POTW. The other way to search, if you scroll down a bit more, is we have the facility type dropdown. There, we can specify POTW versus non-POTW. Our help documentation gives more information about how to use these criteria. And a third way to search for municipal POTWs would be to search on SIC code, the four-digit SIC code, which for sewer systems is 4952.

Great, thank you, Eva. Another audience question: “In the facility report, the drinking water system example, there was a latitude and longitude point from the source FRS. Is this data available for all water systems, and what criteria determines if a water system’s locational data is available through FRS?”

You picked up on an exception. Typically, latitude and longitude information are not available for drinking water systems. However, FRS, which links different EPA program datasets together, if a drinking water system is linked to another facility that might have location information, that information may show up on the detailed facility report.

Great, thank you, Eva. Another audience question—someone asked, “How can I look for a pesticide manufacturing facility?”

I guess a few indirect ways to look for pesticide manufacturing—but first, if you are interested in a particular media type, you can search by industry category. For water, I suggest looking up a SIC code. For other media, you can search by NAICS code. And the other thing we have loosely related to pesticides is there is a dashboard that has information about FIFRA-regulated facilities and some worker protection standard information.

Great, thank you, Eva. And with that, I am going to turn things over to Madeline LaPatra for closing remarks.

This is Madeline LaPatra and I conduct training and outreach for ECHO at the EPA. On behalf of all of us involved with this training, we thank you for participating in this webinar. If you think of any additional questions about using ECHO, please feel free to contact us using the contact us link in the top right of any ECHO page. I also wanted to remind you that a brief survey will open up as soon as this webinar ends. We would really appreciate your feedback. Thank you again and I hope you have a great week.