

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

August 13th, 2019

Hi, 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 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. A recording of the presentation will be available on the ECHO website. And 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 Melinda Miller.

Hi everyone, my name is Melinda Miller 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. 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.

This webinar will be recorded and posted to the ECHO Training page, along with the presentation slides and a verbatim transcript.

To start off, I would like to take a few moments to introduce everyone to ECHO to make sure we are all starting from the same 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 data for more than one million EPA-regulated facilities. This includes three-year compliance 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 and 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, which helps provide a more complete picture of facility activity. 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, now we'll get to the live demonstration.

During this webinar we will demonstrate how to use ECHO to answer common questions from ECHO users. We'll start on the ECHO home page.

The first example question we'll look into is 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 home page. The Quick Search lets you search by Location or Facility Name. Entering a Facility name and clicking search will take you directly to a map and table of matching results. The home page Quick Search is a fast and easy way to run an ECHO search if you know the name, ID, or location of a facility of interest.

Alternatively, you can pull up a full search form by selecting one of the Facility Search types on the Search Options tab. We'll perform a search by clicking on the "All Data Facility Search" link to bring up the full search form. The All Data Facility Search is the broadest type of Facility Search; it returns all facilities in ECHO that match your search criteria. In the "Facility Characteristics" section, enter a facility name or ID number into the appropriate search box. The full search form has additional criteria that you can use to narrow down your search, and we will explore these in later examples.

So, what happens 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:

On the search form, you can change the Active/Operating parameter 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, including those that are inactive. This is a very 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, or if the facility has multiple words in the name, try searching by just one word. You can also try searching by the previous name of the company (if there has been a recent change).

Alternatively, if you can't find a facility by name, you can also try searching by location. For example, you could search by ZIP code (or city and state) and see if the facility comes up in the results.

This brings us to our next example. In addition to searching by facility name, there are options that let you search by Geographic Location.

So, how do I search by geographic location using Latitude and Longitude?

For this we'll start on the Hazardous Waste Search. In the Geographic Location section, we can click on view more which allows us to see more search criteria options.

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 if you had GPS on your mobile phone), and it will create a radius around that.

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

So, since we ran a hazardous waste search, what is a Hazardous Waste Facility?

A Hazardous Waste facility is a facility regulated under the Resource Conservation and Recovery Act (or 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.

So, on the results page, what do the symbols on the map represent?

The flags or map pins indicate four pieces of information using the stripe color, body color, icon numbering, and icon size. You can click on the Map Legend to learn what the symbols and colors represent.

Another question that users might ask is can I modify the criteria to further focus on an area?

Yes. While you're on the search results page, the map initially displays results based on the search criteria entered, but there are additional interactive features on the results page. For example, you can use the "Zoom to" feature to easily shift to on an area of interest.

Okay, for our next example, let's look at Hazardous Waste Treatment, Storage, and Disposal Facilities. A Treatment, Storage, and Disposal Facility, or TSDF, is a specific type of hazardous waste handler.

So, an ECHO user might ask, where are the operating 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 by clicking on "Modify Search" and clear our previous search criteria by clicking the clear button.

Under the Geographic Location section, we'll select Maryland as our state and under the Facility Characteristics section, select we'll select the designation of "Operating TSDFs."

The results show TSDF facilities in the state of MD.

While we are here, I will mention that ECHO has Help pages associated with every search form, search results page, and reports. If you have questions about any of the items on these pages, we recommend selecting the Help link at the top right of the page.

Alright, for our next example, let's look at how we can use the search form to search for facilities using enforcement and compliance criteria. For example, a user might ask:

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

For this we'll switch to the All Data Facility Search form. We'll do a search on the state of VA. In the Enforcement and Compliance section, Under Time Since Last Inspection we'll choose "Within" 1 year and we'll set the Agency as the State.

On the Search Criteria Selected panel, at the right side of the page, we'll select "view results as data table." Note that selecting this option will return results only in a data table and won't display the interactive map.

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 can add 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.

To sort a column, you simply click on the column header. By sorting on "Days Since Last Inspection" we can see the facilities most recently inspected in Virginia by the state agency.

So, another question is, how do I learn more information about a facility that appears in the facility search results?

On the Facility Search Results page, you can click on the table row associated with the facility. The "Facility Summary" panel on the right side of the screen will expand.

You can click on the "More Facility Details" link in the facility summary or on the hyperlinked Facility Name or on the red "C" report icon in the table row to open the Detailed Facility Report or (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.

So, what do the icons under the "Reports" column of the Facility Search Results mean?

These icons represent the reports available for a facility. To see the name of a report you can simply hover your mouse over the icon or click on the "Reports Legend" button on the top right to see descriptions for the different 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 previous webinar entitled, "Advanced ECHO Webinar: Reports." You can find a recording of it on the ECHO Training page. There is a link to the Training page in today's presentation slides.

Alright, let's start from the homepage for our next example, we'll go to the Search Options tab, and click on the Water Facility Search. The Water Facility Search looks for facilities that have a Clean Water Act NPDES permit. Any point source that discharges pollutants to a water of the US is required to have a pollutant discharge permit.

The example question we'll look at this time is, how can I search on a partial NPDES permit number?

The Water Facility Search allows entry of partial ID numbers with at least two characters. You can type a partial ID to return facilities with ID numbers that begin with that search term.

This can be particularly helpful to search for facilities covered under a NPDES general permit, because the permit numbers often have a standard naming convention.

For example, if we search on "DCR12" we can see all facilities covered under a general permit for construction-related discharges in Washington, DC in EPA's 2017 Construction General Permit.

So, how can I search for wastewater treatment plants, also known as publicly owned treatment works or (POTWs)?

For this one we'll stay on the Water Facility Search form and we'll clear our search criteria.

We often receive questions about how to search for wastewater treatment plants and we 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 example, Standard Industrial Classification or SIC Code 4952 represents sewerage systems or (establishments primarily engaged in the collection and disposal of wastes through a sewer system). Let's do a search for facilities in Maryland with this SIC code.

Here, we can use the Customize columns feature again. We'll add SIC Code, Facility Type, and Permit Components from the Customize Columns menu. The Facility Type field 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, campgrounds, etc.

Just as a note, Permit Component is the third field that can identify POTWs. Furthermore, we get a lot of questions about flow information. We do offer two flow fields in Customize Columns. These are Facility Design Flow and Actual Average Facility Flow. These are flows that were included on the facility's original NPDES permit application.

Okay, since we just did a couple of examples for Water, we'll do the next one on Drinking Water.

An ECHO user might ask, how do I search for drinking water systems with specific types of violations?

For this example, we'll use the Drinking Water System Search. Let's search for larger drinking water systems with reporting violations. Note that we can approximate the size of the system using the number of people served. We can Select "Monitoring and Reporting Violations" from the Enforcement and Compliance criteria.

The results page shows 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.

You can select the Facility Name to view the Detailed Facility Report. The Detailed Facility Report or 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 of the DFR, the “SDWA Violations and Enforcement Actions (5 Years)” table may have more detailed information.

If you have questions about the data fields on the DFR, we recommend reviewing the DFR Data Dictionary, which you can access by clicking the Book icon next to each section. The Data Dictionary provides definitions for the data and descriptions of the report sections. A link to the Data Dictionary will also be included in today’s presentation slides.

While we are looking at the DFR, we also 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 on the DFR, whether it’s an incorrect date, wrong facility address or something else, you can use this button to submit a report to EPA where it will be reviewed and corrected if necessary.

After clicking this button, you can scroll down to the line of the report that contains the suspected data error and click on the yellow triangle at the right side of the row. If the row doesn’t have a triangle, you can scroll back up to the top of the report and click Report a General Error.

After making one of these selections, you will be asked to submit your contact information and an explanation about the error. Please include as much specific information as you can to help the responsible official review and correct the data as appropriate.

I will note that ECHO pulls all of its compliance and enforcement data from source databases, and the ECHO team does not make any corrections directly. Whenever a user reports a data error, the report goes to someone who can make the correction in the applicable source database. After an error report is submitted, it can take some time for the report to be researched and the correction to be made in the source database. A correction will then be visible on ECHO after its next data refresh.

Similarly, since ECHO pulls data from many different databases, ECHO helpdesk staff are unable to answer questions about the inspections, compliance issues, or enforcement actions for specific facilities. If you have a question about the compliance and enforcement activities shown on a DFR, we recommend contacting the permitting agency for the facility, which is usually a State agency or EPA Region.

If you would like to learn more about ECHO data sources, refreshes, and corrections, we recommend viewing the “Behind the Scenes” webinar that we recorded in December, which is available on the ECHO Training page. Correction, the “Behind the Scenes” webinar was recorded in April, it is available on the ECHO Training page. You can also view the About the Data page, which contains a list of source databases and refresh schedules. Finally, more detailed information about reporting a data error is

available on the Report a Data Error page and in the Detailed Facility Report video tutorial. Links to each of these pages are also available in today's presentation slides.

We can start our facility search using the map to explore the data by clicking on "Map Any Facilities with Enforcement and Compliance Data" link on the homepage. This link brings you directly to a nationwide map of ECHO facilities. We can specify criteria directly on this page to refine these results.

Our next example question is how do I find facilities with recently identified violations near my community using the map?

On the Current Search panel, you can check "Facilities with Significant Violations" Data are clustered by state on the map. Sometimes when you run a few searches it takes a while to load. So we can check the button for "Facilities with Significant Violations" and the data will be clustered by state on the map. For this example, we'll look at Arkansas.

Now we see individual 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 available in filter facilities panel. We'll look only for facilities with Air IDs which means they're 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.

Alright, we'll pause the demonstration here and check if we have any questions submitted by users. If we have time later, we'll cover additional search examples.

Okay, great. Thank you, Melinda, and this is Rebecca Kane. I work at EPA and I help manage the ECHO website and on behalf of EPA thank you all for attending this training session and keep entering your questions please in the questions panel and I'll turn it back over to Melinda.

Okay so our first question is, how do I get information on violations, inspections and enforcement actions going back further than five years?

So, ECHO in the Detailed Facility Report presents compliance information for the previous three years and enforcement information for the previous five years, but you can find data older than that that by going back to the inception of each program on the data downloads page which is available on the Data Services link, on the Data Services tab of the home page and you can click on the National Data Sets link. This page has links to data sets for each program.

Okay, so our next question is, when completing an environmental site assessment, we also look for any legacy issues that may have happened at the site. Would we be able to look these sites up as well or do we need to rely on EDR radius maps for these types of reports?

For a specific site, we recommend using the Quick Search or the Facilities Search similarly to the examples we have to identify that site and then look at the Detailed Facility Report for as much information as there is available. If by legacy, you mean something further back than five years you can also look at the national data set and pair it down just for your facility of interest. So, we recommend

first starting with looking at the wealth of data that is on the Detailed Facility Report and if you can't find a particular item, piece of information, you can certainly contact us for assistance with that.

Okay, our next question is, for the air portion is there a way to view the actual stack test report in ECHO?

There is not at this point, but we will keep your suggestion in mind for future enhancements.

Our next question is, is the ECHO database available to the public?

Yes, it is. Again, if, the easiest way to look at data is through the facility searches which we've been demoing, but if you'd like to download a national dataset, we'd point you to the national data downloads here. There are kind of two type of files. There is the ECHO exporter, which is a zip file, where it's one line, It's an excel, it's one very large table which one row of information per facility, so if someone is looking for something like nationwide, something similar to the facility search results, for everything download the ECHO exporter and if you're more interested in a particular statute, say you're interested in air data or water data then you can download the national dataset for each applicable statute.

It looks like all the questions that we have for now so back over to Melinda.

Okay thank you for those questions and if you have any more please submit them and we can continue answering them with the time we have remaining. So, we did some examples and now we're going to move on to some that are more focused on pollutant releases.

So, the first example question we'll look into, is how do I search for facilities releasing a specific pollutant?

In our previous examples, we've looked at searches using geographic locations and compliance status. These examples will show you how to search based on specific pollutants released by a facility. For this first one, we'll do the example using the Water Facility search. We can use this search to find facilities in Alabama that report wastewater discharges with Chlorine.

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

As a note, you can also search for specific pollutants or contaminants on the Air facility Search and the Drinking Water System Search. For this example, let's select the "Data Table" results view and click Search.

The results show facilities matching our criteria searching for Chlorine discharging in Alabama. To learn more about the specific pollutant discharge data, you can select the Effluent Charts Report or ("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 the Effluent Charts page, you can select "Chlorine, total residual" from the summary grid. This will automatically generate a chart for the corresponding outfall and pollutant.

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.

Okay, so that was an example of using permit compliance data to track pollutant releases. For our next example, let's start on the All Data Facility Search Form.

So, a user might ask, how do I find facilities that report to the Toxics Release Inventory or TRI?

The Toxics Release Inventory, or 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, many facilities are required to track and report these releases, but these data are not a measure of compliance. Including this information on ECHO is intended to provide context about the facility.

We can scroll to the "Pollutant" section of the Facility Search form, which has options to search for facilities reporting to TRI and by amount of chemical releases.

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

If you are interested in a particular type of environmental release such as air, water, or land, we recommend using one of the corresponding search types.

For this example, we'll search for Water Facilities that reported "direct" discharges or discharges to surface waters, such as rivers and lakes greater than 10,000 pounds. For this search we'll also use the data table view.

On the results page, after it's loaded, we'll use the customize columns button again. We can use Customize Columns to select TRI Surface Water Releases. We can use this to view the pounds of chemicals released to surface waters in the most recent reporting year, which is 2018.

Note that not all facilities report to the TRI Program. We recommend referring to the Results Guide for more detail about TRI and any of the information presented on this page.

So, for our next one we'll shift from water to air. An example user question might be, how do I search for releases of air pollutants?

On the Air Facility Search, we can select Utah as our state, and then go to the Pollutant section.

Under National Emissions Inventory or (NEI), select "Has EIS ID". We'll put the year at 2014, and NEI Emission Category as Particulate Matter.

So, 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. The ECHO Facility Search includes data from stationary point sources, such as industrial or commercial facilities.

So, 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, we can hide the data table. Then we'll zoom in a couple of times to center in on the state of Utah.

Under the Layers panel, we can add a layer to the map. Under Air Maps, we'll check "Nonattainment Areas by Pollutant". Next to each layer is a corresponding legend.

Using this layer, we can see several areas of nonattainment for PM (2.5 or 10 μm). These are the dark blue and dark green areas on the map.

So, 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 attainment on EPA's website.

Okay, that's the end of that example. I pointed out a couple of help pages during this webinar, but I'll mention them again. If you want more information, ECHO has extensive help documentation for each page. On the Facility Search form, clicking the Help link will take you to a Search Criteria Help page with descriptions and guidance for each of the search options. Similarly, on the results page, clicking on the Help link will take you to a page with guidance on how to use the page and links to pages with definitions for each of the results columns. Furthermore, if you have a question that is not answered by the help pages, you can always use the Contact Us link, which is available at the top right of every ECHO page.

We have included links to these help pages and to various other guidance pages in today's webinar slides. And that is the end of the examples we have for you today. I'll just remind you that a recording of this webinar as well as the presentation slides and a verbatim transcript will be posted on the ECHO Training page.

If we have time for a few more questions? Yes.

Okay, so the next question is how is whole effluent toxicity or wet data searched for and presented in the ECHO database?

So, facilities that have waste water discharges and are subject to the NPDES permitting program, some of these facilities monitor for whole effluent toxicity and so we can search for that data through the water facilities search using the pollutant section similarly to how we searched for Chlorine we can search here. In the facility search results directly there is no pollutant release data so direct you to the effluent chart so you can look at the specific data that was reported by the facility and then you can also use the Water Pollutant Loading Tool to also search for DMR data or other data that are reported by waste water discharges.

That looks like all the questions for now. If you have any remaining questions, please feel free to type them into the box.

We just received another question. Does ECHO track medically related waste violations?

I am not sure specifically what type of violations it's referring to.

I think it means medically related violation.

Yeah thank you. I am not sure if you can, if there's specific violation tests for medical waste. Rebecca would you know more?

Only, so the kind of waste that's regulated as hazardous would be, facilities that manage the kind of waste would be acquitted in the search and we do have a search for violation type. It's not really about the type of waste, it's about the type of facility often. So, the short answer is facilities that manage hazardous medical waste will come up in the search, but I don't think you can search specifically for that. Although you could probably search for, by using NAICS, like industry codes to get to the type of facilities you're interested in, yeah in the Facilities Characteristics section.

That looks like all the questions for now. Alright, as a reminder there will be a survey at the end of this webinar. Please fill it out and let us know if you have any suggestions for future webinars. Thank you all very much for listening to this Intro to ECHO webinar. Have a great day.