Transcript for Environmental and Compliance History Online (ECHO) Advanced Webinar – Hazardous Waste

September 18, 2018

Thank you all for joining today's presentation, The Advanced ECHO Webinar - Hazardous Waste.

Before we get started, let's review a few housekeeping items. Audio is available for this presentation through your computer's mike and speakers or by telephone. The call-in number as well as the 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, and if you have a question during the presentation please type into the question box on the upper right-hand side of your screen. We will have a designated time to answer those questions at the end of the presentation. This webinar will also be recorded and posted on the ECHO training web page. Lastly, if you are experiencing any technical difficulties please contact us through the chat box and we will try to troubleshoot the issue. We would like to reiterate that you can submit your questions on the questions box on your control panel. Just please make sure that the context of your question is clear as we will be answering questions that cover a range of topics; so, you can reference live examples or slide numbers. In order to make this webinar useful for everyone we won't be addressing site specific questions, but you can go to ECHO's Contact Us page for help with those and we would be happy to respond. Thank you again for joining us today and now I will hand over the presentation to our presenters.

Good afternoon. The purpose of today's training is to demonstrate tools available in ECHO to access hazardous waste handler data. Hazardous waste is regulated under the Resource Conservation and Recovery Act, or RCRA. The intent of RCRA is to establish a national system for ensuring safe solid waste management. The term solid waste includes both hazardous and non-hazardous waste, but also encompasses discarded semi-solids, liquids, and contained gases. Solid wastes are considered hazardous when they are known to be harmful to human health or the environment when not managed properly.

Data are available in ECHO for facilities that manage hazardous waste and are therefore subject to the Subtitle C requirements of RCRA. RCRA hazardous waste regulations are described in 40 CFR parts 260 to 282.

Now, I would like to take a few moments to introduce everyone to ECHO to make sure we are all beginning from the same starting point. The U.S. Environmental Protection Agency or 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, and Safe Drinking Water Act public water

systems in addition to the RCRA hazardous waste handler data that is the focus of today's webinar. Data are reported by EPA and state and local agencies.

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 or ICIS, the Resource Conservation and Recovery Act Information System or RCRA Info, the Safe Drinking Water Information System or SDWIS, and the Facility Registry System or FRS. It 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 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.

Let's now focus on the topic of today's webinar: demonstrating the tools available in ECHO to access hazardous waste handler data. As I mentioned at the beginning, ECHO includes data about facilities that manage hazardous waste that pull from the RCRAInfo EPA data system. Data available for hazardous waste handlers include information on facility designations, compliance with federal and state regulations, and corrective actions or cleanup activities. Note that ECHO focuses on compliance and enforcement-related data and does not include all data from RCRAInfo. You can access additional information through the RCRAInfo web access page, the link is highlighted on the slide.

RCRA data in ECHO can be queried from the Hazardous Waste Facility Search. EPA designed the Hazardous Waste Facility Search to be versatile for many user groups, including public users looking for information about hazardous waste in their community, regulated facilities, environmental compliance inspectors, and researchers evaluating data on hazardous waste compliance. Today we'll demonstrate several features by exploring four research questions.

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.

So, the first question we are going to explore is, "how can I find hazardous waste compliance information for facilities in my community or near a specific location?"

The Hazardous Waste Facility Search is a subset of the ECHO Facility Search tool. It is useful for anyone interested in facility compliance information in their community or at a specific location. For this example, we will show you how to run a search using basic search criteria, and we will demonstrate how to customize the search results table and download the results data. To access this search, select Search Options from the ECHO home page and look for the Hazardous Waste Facility Search link.

If you prefer, you could start with a nationwide map of these facilities by using the Map Hazardous Waste Facilities link, but we will start with the search form for today's case studies.

The search criteria on this page are similar to those that are available in the All Data Facility Search, but additional criteria are included that are specific to the hazardous waste program. Once on the Facility Search page, you can always change your search type using this dropdown.

Collapsing the sections on the page shows that search criteria are organized into six main sections.

You can search by various geographic, facility, enforcement and compliance, pollutant, and demographic characteristics. In the hazardous waste search, some of these options are specific to RCRA. For example, under Facility Characteristics, you can select a specific RCRA designation such as Small Quantity Generator or Large Quantity Generator.

Help information for the Facility Search can be accessed by clicking the Help icon above the search criteria selection box, or by clicking one of the question mark icons in the search criteria sections.

Now, let's run an example hazardous waste search. Under Enforcement and Compliance let's specify the Number of Current Violations as four or more. Searching for facilities with violations will return facilities with RCRA violations reported in the most recent quarter. A quarter in ECHO is defined as any three-month period from January to March, April to June, July to September, or October to December. Notice that as you select criteria, the Search Criteria Selected box automatically updates to show your selections.

Before running our search, a note about violation data. ECHO arrays these data based on information entered into RCRAInfo. In many cases, this reflects determinations made by EPA or states after conducting inspections or reviewing facility reports. This designation assists government agencies in tracking resolution of violations and does not necessarily represent the actual duration of a problem.

Now let's click Search.

By default, the Search brings you to a results page with an interactive map and a table of the search results. When there are too many search results to display individually, the results table automatically groups them by state, county, or zip code. In this case, the results are grouped by state. For this example, let's look at facilities in Missouri. Now, the results table is populated with individual facility names in each row and the map updates to display the facilities in the selected state.

One of the most useful features on the results page is the ability to customize the columns included in the results table.

You can choose columns from various categories, such as Facility Information, Inspections, Pollutants, and Enforcement Actions. For this example, let's select Date of Last Record Review and Days Since Last On-Site Inspection from the Inspections section. Clicking Update Columns will add these to the results table.

Let's see which facilities were most recently inspected by sorting the Days Since Last On-Site Inspection column.

The search results table can also be downloaded. To do this, use one of the two download buttons to the right of the Customize Columns button. Clicking on Download Data gives you the option for whether you want the data in a CSV, Excel, or GEOJSON format. When you have selected the desired format, click Download Data.

Clicking on the Quick CSV Download button will immediately generate a CSV file of the current search results.

Note that some of the column headings in the downloads may slightly differ from the results table. The Results Guide provides descriptions of all the data fields in the search results and lists the corresponding download file field names. You can access the Results Guide by clicking the Results Guide link above the table.

Let's move on to another example.

For this case, let's ask the question, "how can I keep track of compliance information about facilities in my company?"

So now, let's identify potential ways that users who are interested in information for particular facilities can use the ECHO Hazardous Waste Search.

There are different approaches you can use to search for facilities using the Hazardous Waste Facility Search. We will demonstrate how to search using the facility name and EPA identifier to reach the same result. We will also explain the logic behind the ECHO search criteria.

Now let's say that we work for a company with many facilities across the United States that needs to monitor environmental compliance. First, we can search for facilities operated by this company by searching for the facility name.

The default logic, Contains Each Term, will return facilities with names that include both the words Advanced and Technologies in any order. We would like to be more specific, so will change the name search logic to Matches Exact Phrase. Matches Exact Phrase indicates ECHO will search for facility names that contain the words Advanced Technologies in this exact order, without any characters between them.

As you can see, there are about 20 results produced. Most have Advanced Technologies in the facility names shown in the data table, but two are listed that do not seem to match our search criteria. This occurs because ECHO does not restrict facility name searches to only the facility name associated with this hazardous waste program source data system RCRAInfo. It looks for names across other EPA systems to find the greatest number of potential matches. In other words, if a facility has a matching name listed under another environmental program, that facility will appear in the search results. The facility names associated with each program are available on the Detailed Facility Report or DFR, which we will show you shortly.

Let's answer another common question, "Is there a more direct way to search for hazardous waste handlers?"

Yes, the best way to track particular handlers in ECHO is by using the EPA RCRA ID. The RCRA ID is the unique identifier for hazardous waste handlers in RCRAInfo and ECHO. Users may already know the RCRA ID they are interested in, or they may find it by using the ECHO search results. Here is the column in the search results table that lists the RCRA ID.

So, let's copy the RCRA IDs for the facilities we are interested in so that we can paste them into the search form.

Clicking on Modify Search will bring you back to the search page and keep your criteria selections.

If you want to clear any of these selections from the initial search, simply click the corresponding x button. The x button at the top of the Search Criteria box can be used to clear all selections. Let's clear our selections and use only the RCRA IDs.

We can run a search by entering RCRA IDs directly into the Facility ID Number field. Note that the Facility ID Number allows you to enter multiple IDs, either separated by commas or copied and pasted from a spreadsheet column.

This time, the search results display exactly the three facilities we were looking for.

Let's look at how we can access more information from the Detailed Facility Report or DFR. To view a DFR, click the hyperlinked facility name or the C icon in the results table. Regulated facilities can use this report to check their compliance data as reported to EPA for the last three years.

So, how do we read the DFR?

The report is organized into 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. In this example, we will focus on the Facility Characteristics section, and the case studies following will highlight other sections of the DFR.

First, let's jump to the Facility Characteristics section.

We can see information associated with each program or permits listed in each row, with RCRA or other program systems listed in the "System" column in each table.

The Facility Address table shows the Facility Names in each program, which are values we searched for using the Facility Name criteria. We can see some variation in the names and addresses, which may be due to differences in reporting requirements or the time at which the information was reported.

However, what if we notice an error with the street address associated with the RCRA permit? ECHO has a feature to allow users to report suspected errors directly to EPA.

At the top of the DFR, click Report Data Error to enable the error reporting feature. Now, there will be a yellow sign icons on the page next to specific data for which you can report an error. Let's scroll down to the facility address table and see the Report Error link that now appears next to that row of data.

If there is not an error reporting symbol next to the table or row with the suspected error, we could submit a general error report by clicking Report a General Error back at the top.

When reporting an error, please include a clear description of where you identified the error and what you believe to be the correct value.

Next to the error reporting button is a link to the Data Dictionary. The Data Dictionary provides descriptions of every term on the DFR. You can also use the Print button to print or save a PDF copy of the DFR.

Furthermore, the DFR has a unique URL, so users may bookmark, or link directly to the report for their facility or permit of interest to periodically check facility and compliance information.

The third question we will explore is, "how can I identify facilities with TRI land releases or waste transfers in my state?"

In this example, let's look at chemical release and transfer data reported through EPA's Toxics Release Inventory or TRI. This information isn't used for compliance but can provide a more comprehensive picture about the waste managed at a facility. This example may be useful for researchers, communities, or anyone interested in chemical waste management, recycling, and disposal.

Under the Emergency Planning and Community Right-to-Know Act (EPCRA), the TRI program collects data on toxic chemical releases and pollution prevention activities reported by industrial and federal facilities and provides this information to the public. ECHO provides some information about facilities that report to TRI on the Hazardous Waste Search Results.

Let's say we are interested in learning about waste management volumes for an industry that has facilities in my state, for example, Illinois.

Let's search for Chemical Manufacturing using a North American Industry Classification, or NAICS code. If you do not know the specific NAICS code, use the keyword search to identify an industry classification code.

Let's also look for facilities that reported to the TRI in the current reporting year. Now let's search.

We can look at the TRI data by using Customize Columns. Let's add TRI IDs, TRI On-Site Land Releases, and TRI Off-Site Chemical Transfers. Let's also remove the columns associated with Compliance Status or Inspections.

One thing to note is that not all Hazardous Waste Handlers may report to TRI, so you may find facilities that do not have TRI IDs when running other searches. Facilities that report to TRI must meet specific criteria: The facility must be in a TRI-covered industrial sector, employ 10 or more fulltime employees, and must exceed any one activity threshold for manufacturing including importing, processing, or otherwise using a TRI-listed chemical in a given year. Lack of data does not indicate the facility is noncompliant or has made a reporting error. We encourage you to visit the TRI program website www.epa.gov/tri to learn more about TRI.

The On-Site Land Releases and Off-Site Chemical Transfers provide information about the total pounds of TRI chemicals released or managed in 2017, the most current reporting year available. On-site land releases may include disposal of chemicals in landfills or surface impoundments, underground injection, or other disposal methods. Off-site transfers represent chemicals that were transferred to another location for recycling, treatment, or disposal. Most of the chemical manufacturing facilities in these results reported transferring chemicals off-site. We can get more information from the DFR.

TRI Release data are included in the Pollutants section of the DFR.

The pollutants section provides a summary of the last nine years of TRI data. The first table shows a history of chemicals reported as released or transferred by several means by year. This table includes other management methods besides those for solid waste, such as chemical releases to air and water.

The second table lists the pounds of each chemical released and otherwise managed by year. We can sort this table to see the chemicals with the greatest volume managed by year.

Note that if you are interested in more detailed TRI information, such as the waste management practices for each chemical, EPA provides this through another EPA website, Envirofacts. We encourage you to view the TRI Pollution Prevention Report in Envirofacts to further explore this data set.

The last question we'll explore today is, "how can I use ECHO to prepare for a hazardous waste facility inspection?"

Let's look at how an inspector can use ECHO as part of the planning process for a multimedia inspection. First, we can click the View More Search Options toggle to view all the available search criteria.

We will focus on search criteria in the Facility Characteristics and Enforcement and Compliance sections for this example to identify facilities for potential inspections. Search criteria available in these sections can help prioritize facilities of interest.

First, let's select the Large Quantity Generator criterion, under Designation.

Large Quantity Generators are sites that produce 1,000 kilograms or more of hazardous waste per month or one kilogram or more of acute hazardous waste per month.

Since we are planning for a multimedia inspection, we would like to search for hazardous waste facilities that also have a Clean Water Act permit.

We can narrow our search to look for facilities without recent inspections. Under the Enforcement and Compliance section, set the Time Since Last Inspection to none within 2 years. Note that while we selected years using the slider, you could also designate a specific date range.

As a reminder, more information about these criteria is available in Facility Search Help, which can be accessed by clicking the question mark icon in each section.

Let's view the results using the interactive map.

As you can see, about 4,000 facilities meet the criteria we selected.

You can also apply criteria without having to go back to the search form by using the Explore Enforcement and Compliance checkboxes on the right. The counts tell us how many of the 4,000 facilities meet these criteria. We will select Facilities with Current Violations.

Now, our results have been reduced to about 250. We demonstrated earlier how to narrow down the search results using the data table. This time let's use the interactive map to zoom in on areas of interest.

We can see that there are several facilities near Chicago that have serious noncompliance status. Let's zoom in on this group of facilities.

We can view summary information about each of these facilities by clicking on the map pin.

The pop-up provides the name, location, and a brief compliance history for the facility. Clicking on the map pin also highlights the facility in the data table below the map and expands a Facility Summary panel on the right.

In the data table, we can see that this facility has had one On-Site Inspection in the past 5 years. Now that we have a rough sense of this facility's compliance status, let's open the Detailed Facility Report to view more information.

As we saw earlier, the Detailed Facility Report aggregates detailed data for a single facility. For this example, we'll focus on the enforcement and compliance details available on the report.

We can go directly to the Enforcement and Compliance information by clicking the page jump at the top navigation bar.

This section presents relevant compliance or enforcement information.

The Compliance Monitoring History table lists recent state or federal inspections. Here we can see the exact date and type of the official RCRA inspection that was indicated in the search results.

The Compliance Summary Data table lists information similar to the facility summaries seen on the map pop-up but also lists the applicable permit or program IDs and date that data were last refreshed in ECHO.

The Three-Year Compliance History by Quarter table presents violation details, broken down into quarterly periods for each program. Past violation information can be useful for an upcoming inspection, as it may indicate where to focus efforts when at the facility.

We can identify the violation type, the reporting agency, EPA or State, and the start and end of violation status changes.

In this example, we can see 10 separate RCRA violations listed. These violations are unresolved, as represented by the arrows in the table. Resolving these violations will likely require a facility report review or an on-site inspection.

RCRA violation codes seen in ECHO originate from the RCRAInfo database. Short descriptions are available in a document in the DFR Data Dictionary titled, Nationally Defined Values for Violation Type. For more detail about the violations, you may need to reach out to the EPA Region or state environmental agency. ECHO maintains a webpage listing contact information for state agency websites, which can be found through the DFR Data Dictionary.

The Enforcement Actions tables may also contain details on informal or formal actions taken against a facility. In this example, we see that actions have been taken by both EPA and the state environmental agency. For additional information on state enforcement actions, reach out directly to the state environmental agency.

This concludes our fourth example. Before we take questions, we'd like to summarize the key takeaways. The ECHO Hazardous Waste Facility Search provides many options to search for facilities that are regulated under the RCRA Subtitle C Hazardous Waste Program. Today, we demonstrated real-world

examples of using the Hazardous Waste Facility Search and interpreting hazardous waste compliance data on the Detailed Facility Report.

Now we'll jump back to the slide deck.

This slide presents a list of links to ECHO resources, as well as websites mentioned during this demonstration. If you want to learn more about other features available on our website, we recommend beginning with the quick start guide and viewing the short video tutorials.

EPA is continually working to develop new features and add data to ECHO. In response to user feedback, we recently updated the ECHO Home page to enable easier access to ECHO features and we updated the style and appearance of the Facility Search and Detailed Facility Report.

We are always seeking to improve the website and would love to hear your feedback. We especially would like recommendations on which data fields in RCRAInfo to add to the DFR or as search criteria. Please use the Contact Us link to provide suggestions at any time.

Now, we'll move on to the questions and answers phase.

So, the first question we have is, "Can ECHO provide a list of a query of industries included on the RCRA and TRI websites by zip codes?"

The Hazardous Waste Facilities Search includes that information both for classified industries by the SIC and NAICS code and then we also provide the zip code for each facility on the search results page. Typically, if there are less than 500 facilities in the results we'll see how the individual facility is listed out. But that grouping occurs when we have more than 500 facilities and it depends on the number of search results whether your results will actually be grouped by state or county or zip. So, to get this kind of list we would suggest running the search and then downloading the information with both the NAICS code and the zip code and grouping the facilities off line like in Excel or a database program. If someone is interested in a nationwide data set, we also have data downloads available. You can find these back on the home page under Data Services and then National Data Sets. These are fairly large data sets that you can download and work with off line for further analysis.

The next question is, "How often are the data uploaded to ECHO from State or EPA databases?"

Most data in ECHO are refreshed once per week. And you can find that information, the specific dates on our About the Data page. The main exception is that drinking water data are updated quarterly. Specific data flows between the State and the EPA programs system might occur at different times. And we can't speak to the specific data flows but some of them most likely the occur daily or weekly, it would depend on the State and the data system.

So, the next question we have is, "Is RCRA financial assurance information envisioned to be evident to ECHO?"

We don't currently have that information in ECHO, but we will take that into consideration.

Looks like that is all the questions that were submitted during this webinar. We want to thank you all again for joining us today. We really appreciate your time and hope you have a good rest of the day.