Hi everyone, good afternoon and welcome to today’s presentation. Before we get started, we’ll 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 into the questions box on the upper right-hand corner of your screen. We will have a dedicated time to answer questions at the end of the presentation. If you’re experiencing any technical difficulties, please contact us and we will try to troubleshoot the issue. A recording of this presentation will be available on the ECHO website, and lastly a survey will appear on your browser when the webinar ends, so please make sure to fill that out so you can provide your feedback. And with that, I’ll pass it on to our speaker, Melinda Miller.

Alright. 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 Advanced ECHO series of webinars. The purpose of today’s training is to demonstrate tools available in ECHO to access and interpret EPA data about air emissions and facility compliance with the Clean Air Act.

First, I would like to take a few moments to introduce everyone to ECHO to make sure we are all beginning from the same 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 include 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 RCRA hazardous waste handler data, Clean Water Act permitted dischargers, Safe Drinking Water Act public water systems, and Clean Air Act stationary source data. 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 Service 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.

The focus of today’s webinar is demonstrating the tools available in ECHO to access air compliance and emissions data related to the Clean Air Act. The intent of the Clean Air Act is to protect human health and the environment from the effects of air pollution.

ECHO integrates data from several EPA datasets, including Clean Air Act compliance data and quantities of air pollutants emitted. Note that ECHO includes data only for stationary sources, such as power plants and manufacturing facilities, and does not include mobile sources like vehicles. ECHO also includes data on ambient air quality and whether specific geographic locations are attaining Clean Air Act standards.

ECHO provides facility data pulled from the EPA program data system, ICIS-Air, and also provides data from four emissions inventories: these are the National Emissions Inventory, the Greenhouse Gas Reporting Program, the Toxics Release Inventory, and the Clean Air Markets Division. The data from ICIS-Air include information on facility designations, compliance with federal and state regulations, and corrective actions. These emissions inventories do not indicate compliance status but rather are included to give context about the facility.

Clean Air Act data in ECHO can be queried from the Air Facility Search. EPA designed the Air Facility Search to be versatile for many user groups, including representatives of regulated facilities, environmental inspectors, researchers, and public users looking for information about air emissions in their community.

The ECHO Air Facility Search and Air Pollutant Report can help you identify what facilities have air emissions, how much is emitted, and where the facilities are located. Today we’ll demonstrate some applications of the Air Facility Search through five case studies.

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.

Alright so the question that we’ll answer for our first case study is,

**How can I find Clean Air Act compliance information for facilities in my community or near a specific location?**

For this example, we will show you how to run a search using geographic search criteria, and we will demonstrate how to customize the search results table and download the data.

To access this search, select Search Options from the ECHO home page. There are two choices for Air. The Air Facility Search link will bring us to a search form where we can specify the criteria we are interested in. Or, we can bypass the search form and go directly to a map view of all air facilities, by selecting the Map Air Facilities link. This loads a map of all the facilities in the 48 continental states that have ICIS-Air data.
When more than 500 facilities appear in the results, the map automatically groups the results into clusters by state, county, or zip code. In this example, they are grouped by state. You can narrow down your results by clicking on a green cluster or by clicking on a row in the table.

For now, let’s go back to the full search form and specify criteria there. We can go back to the homepage and click on the Air Facility Search link.

I’ll note that this webinar focuses on the Air Facility Search, but if a user were interested in another medium such as Water, Drinking Water, or Hazardous Waste, they could change the form directly on this page by selecting another search type from the dropdown. The All Data Facility Search is the most general search type in ECHO, so if you are not interested in a particular medium, we recommend using this search type to get the broadest set of results.

The search form varies between each search type. The Air Facility Search form contains certain criteria that are specific to air program data. These criteria are organized into six sections, which we can see by selecting “Collapse All.”

Users can search by geographic, facility, enforcement and compliance, environmental conditions, pollutant, and demographic characteristics. For this example, we’ll start with the Enforcement and Compliance criteria.

Information about how to use the Facility Search form, as well as definitions of all the search criteria, can be accessed by selecting the Help icon above the search criteria selection box, or by clicking on one of the question mark icons in each section.

In this search, we’ll look at air facilities that have had a Full Compliance Evaluation within the last year.

A Full Compliance Evaluation is a comprehensive air inspection to assess the compliance of a facility. By contrast, a partial compliance evaluation may be conducted to evaluate a specific aspect of a facility, such as a subset of unit processes or regulated pollutants.

Notice that as you select criteria, the Search Criteria Selected box automatically updates to show your selections.

Now we’ll click Search.

By default, the Search brings you to a results page with an interactive map and a table of the search results. Because we have more 500 facilities, the results have been grouped by state. For this example, we’ll look specifically at facilities in Missouri.

Notice that the Search Criteria Selected panel updated to show that we selected Missouri. Now, the results table is populated with individual facility names in each row and the map updated to display the individual facilities in the selected state.

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

The map 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 the Facility Summary in the right panel.
At the top of the map table, there is a Map Legend button that describes the symbology for the map pins.

In the data table on the results page, certain columns are provided by default. One of the most useful features on this results page is the ability to customize the columns that are included in this results table.

You can choose columns from various categories, such as Facility Information, Compliance Evaluations, Enforcement Actions, and Pollutants. For this example, let’s select Date of Last Full Compliance Evaluation from the Compliance Evaluations section. Clicking Update Columns will add this selection to the results table.

Let’s see which facilities were most recently evaluated by EPA by sorting on this field.

The search results table can be downloaded, using one of the two download buttons next to 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, select Download Data.

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

To find definitions for the data fields on the results page, we recommend reviewing the Results Guide, which you can access through the Results Guide link above the table.

Alright, let’s move on to our next example.

For our second case study, we’ll ask the question,

**How can I keep track of compliance information about facilities in my organization?**

For this case study, we’ll explore ways to search for specific facilities using the ECHO Air Facility Search.

There are different approaches you can use to search for facilities within an organization or company. Let’s say that we work for a company that needs to monitor air compliance information for facilities across the United States. A simple way to keep track of all facilities is with their Clean Air Act ID. The Clean Air Act ID is a unique identifier assigned for each facility within ICIS-Air and is generally not expected to change over time. However, we may not know the Clean Air Act ID, so we will start by searching for facilities by name.

The default logic, Contains Each Term, will return facilities with names that include the words “American” “Crystal” and “Sugar” in any order.

Note that you could choose another logic option from the dropdown, such as “matches exactly” or “begins with.”

Before we search, I’ll also note that “All Active Facilities” is selected by default. Often, if users are unable to find a specific regulated facility in ECHO, we recommend removing this criterion, because sometimes facilities are designated as Inactive in the program data system.

As you can see, the search returns 7 facilities and includes results that contain all of the search terms.
The Clean Air Act IDs are listed in the results table and you can download this data using the Quick CSV download.

The Clean Air Act IDs also appear in the spreadsheet and can be copied and pasted into the search form to search for these facilities in the future, which we will demonstrate shortly.

I’ll note that ECHO does not contain corporate linkage data, so to track facilities that may not have a common name, we recommend building a list of facility IDs by using an iterative search process.

Ok, so case study three asks the question,

**Is there a more direct way to search for facilities that produce air emissions?**

Some facility data, such as names or addresses, may change over time. If you need to monitor compliance data for a specific set of facilities over time, we recommend searching by Air IDs, because these are a unique identifier in ECHO. Users can enter these IDs directly into an ECHO search form to quickly return these facilities.

For this example, let’s look at how a facility manager or regulatory inspector might use ECHO to access compliance data.

Using the examples from our previous search, we will copy the 7 Clean Air Act IDs (from the SourceID column) and return to the main Air Facility Search page. From here, we can paste these IDs directly into the Facility ID number box and click search.

In the search results table, we can see the same 7 facilities.

Note that one of the default columns is a “Reports” column. This column contains icons that link to specific ECHO reports with more detailed data. The “C” icon stands for Compliance Report, also known as the Detailed Facility Report, or DFR. Every facility will have a link to a Detailed Facility Report, and other report icons will display depending on the environmental programs or data associated with the facility.

If you open the Reports Legend, you can see a full list of the ECHO reports that may be available for a specific facility.

Now let’s explore a Detailed Facility Report, or DFR. We will click on the report icon for the first row in the table, American Crystal Sugar Company.

At the top of the report, there are options to customize by Environmental Media and the timeframe for compliance.

The DFR is organized into six sections: Facility Summary, Facility and System Characteristics, Enforcement and Compliance, Environmental Conditions, Pollutants, and Demographics. You can jump to each of these sections by using the navigation bar at the top of the page.

So, how do we read the DFR?

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 first section, Facility Summary, gives the full address and identifying information for the facility. It also includes an Enforcement and Compliance summary and regulatory information.

Under the Other Regulatory Reports heading, you will see IDs associated with other data sets. The first three are associated with air emissions data, and the fourth links to information from an EPA reporting portal known as the Compliance and Emissions Data Reporting Interface or (CEDRI), if applicable. This link provides access to certain reports submitted to EPA, such as Performance Test Reports.

The Air Emissions Inventory database includes data from the National Emissions Inventory or (NEI). The NEI is a comprehensive estimate of air emissions of criteria pollutants, criteria precursors, and hazardous air pollutants from emissions sources. The NEI is released every three years based primarily upon data provided by State, Local, and Tribal air agencies and supplemented by data developed by EPA.

The Greenhouse Gas Reporting Program requires reporting of greenhouse gas data and other information from large greenhouse gas emission sources, fuel and gas suppliers, and CO2 injection sites in the United States. These data can be used to track and compare facilities’ greenhouse gas emissions.

The Toxics Release Inventory or (TRI) contains chemical release and pollution prevention data. TRI tracks the management of certain toxic chemicals that may pose a threat to human health or the environment. U.S. facilities in certain industry sectors must report annually how much of each chemical is released to the environment and/or managed through recycling, energy recovery, and treatment.

We’ll look more at these data programs in later examples.

The next section in the DFR is Facility/Systems Characteristics. In the first table, we would like to point out the three columns that provide contextual air program information. For the record that corresponds to air compliance, which is ICIS-Air, we can see that the facility is classified as Operating.

The ‘Areas’ column displays the Clean Air Act stationary source program codes that apply to the facility.

In the Universe column, this facility is classified as Major Emissions, which is the highest emission level classification across active Air programs and pollutants regulated.

If you have any questions about the data you find in the DFR, you can open up the Data Dictionary by clicking on the book icon. The Data Dictionary provides definitions for the data fields in the DFR.

Next, we will look at the Enforcement and Compliance information.

The Compliance Monitoring History table lists recent state or federal inspections. Here we can see the date and type of any official Clean Air Act evaluation for this facility.

The Compliance Summary Data table lists the applicable permit or program IDs and date that the data were last refreshed in ECHO.

The Three-Year Compliance History by Quarter table presents compliance history, broken down into quarterly periods for each Clean Air Act ID. Compliance history data can be useful for a facility manager or an inspector to audit and track facility compliance over time.

This table shows information such as violation type, the reporting agency, and the start and end dates of violation status changes.
This section also includes tables that present data on any formal and informal enforcement actions for the facility in the last five years, if applicable.

Remember that ECHO pulls the data from other data sources, so for more detail about specific violations or enforcement actions, we recommend reaching out to the EPA Region, state or local environmental agency that issued the permit or is listed as the lead agency in these tables.

Next, there is a section that describes environmental conditions, including air quality. We will go into more detail about air quality data in our last example.

There also is a section that summarizes TRI release data, if applicable. Within this table, there is a column for Total Air Emissions. This lists the total emissions which is an annual sum of all individual air pollutants. We will explore individual air pollutant data in a later example.

If you are interested in additional TRI information, EPA provides this through another EPA website, Envirofacts. We encourage you to view the TRI Pollution Prevention Report in Envirofacts by clicking on the hyperlinked TRI ID.

Okay, now we’ll move on to the next case study.

The next question asks,

**How do we identify facilities with TRI air releases for specific pollutants?**

Under the Emergency Planning and Community Right-to-Know Act (or EPCRA), the TRI program collects data on toxic chemical releases to air, land, and water and collects data about pollution prevention activities reported by industrial and federal facilities and provides this information to the public. Community members can view this information to see releases in their area, and make informed decisions related to health and safety.

One thing to note is that not all facilities report to TRI. Facilities required to 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 an activity threshold for manufacturing or otherwise use 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 website to learn more about the TRI program. This link will be included in the presentation slides.

TRI chemical release and transfer data are available in ECHO, and we can search on these. As a note, TRI data are included in ECHO to provide a more comprehensive picture about a facility’s activities, and don’t necessarily reflect a facility’s compliance status.

Using the pollutant section of the search form, let’s search for facilities that have a TRI ID and that have reported to TRI in the latest reporting year, which is 2018. We’ll specifically look at chlorine by using the TRI Pollutant dropdown. Before we search, let’s switch to a Data Table results view. In general, we recommend using the data table results view if the search is expected to produce more than 500 facilities, otherwise the data will be aggregated into clusters.

The results include facilities that had reported releases of Chlorine to TRI in 2018.
We can explore TRI data by using Customize Columns. We’ll de-select our current columns and add TRI columns.

In this search, the facilities in the table are those that reported any amount of chlorine emissions. However, I do want to point out that the search results columns are for total TRI releases for all air pollutants, and do not tell us specifically about the amount of chlorine released. To see more detailed air emissions data, we need to look at the Air Pollutant Report, which is indicated by the “A” icon.

The Air Pollutant Report presents ten years of EPA air emissions data from the National Emissions Inventory, the Greenhouse Gas Reporting Program, the Toxics Release Inventory, and the Clean Air Markets Program. By consolidating emissions data from four different inventories, the Air Pollutant Report provides a single source for us to understand a facility’s suite of pollutants.

Note that the same pollutant may have different amounts displayed, depending on the reporting program. There is some overlap in pollutants covered by the different programs. It is important to note that emissions values reported under multiple programs are not exclusive and should not be added together.

We described the NEI, TRI, and Greenhouse Gas Reporting programs in other examples. The fourth emissions inventory on this report is the Clean Air Markets Division or (CAMD), which runs programs that reduce air pollution from power plants. CAMD programs include the Acid Rain Program and the Cross-State Air Pollution Rule.

In the Air Pollutant Report, the first section displayed in this report is the Facility Summary. Unique identifiers are displayed for each applicable air inventory and these can be used to customize the tables below. All four inventories are selected by default. For this example, let’s uncheck all the boxes except for Toxics Release Inventory.

Now, if we scroll to the Emissions Data table, we can see the pounds of air emissions for TRI pollutants for each year from 2009-2018. The trend lines show the pattern of emissions over time.

If we look at chlorine, we can see that it has remained generally stable over the entire timeframe for this facility.

Now, we’ll move on to our last case study.

**For the last case study, we’ll focus on environmental conditions, by searching for and describing Nonattainment Areas and the National Emissions Inventory.**

We’ll start by choosing a state, let’s say Ohio.

In the Environmental Conditions section, we’ll specify that we are looking for facilities located in a Nonattainment Area for Any Pollutant.

Under the Clean Air Act, EPA sets national standards for ambient air quality for certain pollutants. A nonattainment area refers to an area in the U.S. that does not meet one or more of the National Ambient Air Quality Standards or (NAAQS) for six common air pollutants. These are Ozone, Lead, Carbon Monoxide, Particulate Matter, Nitrogen Dioxide, and Sulfur Dioxide. You can learn more about ambient air quality standards on EPA’s website.
In the Pollutants section, we are going to search for facilities reporting Sulfur Dioxide emissions, which we can find by searching within the National Emissions Inventory. Note that the scope of these four air emissions datasets differs, so we suggest reviewing the ECHO help documentation and air program websites to learn more about them to hone your searches.

Let’s choose “Has EIS ID” and set our Category to Sulfur Dioxide.

Sulfur dioxide in the atmosphere results from burning materials containing sulfur, such as combustion of fossil fuels by power plants and other industrial facilities.

Let’s also specify that we are interested in emissions greater than 50 tons. Note that we have not selected a specific year, so our search will return facilities that had emissions of 50 tons or more during any NEI year.

The search returns around 160 facilities. We can collapse or hide different elements on the results page to get a better look at the map.

On this page, let’s add a map layer to visualize the nonattainment areas.

In the Layers panel on the right side of the screen, we can select Air Maps and choose Nonattainment Areas by Pollutant. This shades the map areas according to the type of nonattainment area. Clicking on the ‘i’ icon will show the map legend for pollutant types. In this example, we’re looking for sulfur dioxide nonattainment areas, which are shaded purple.

We want to note that we cannot not imply direct causal relationship between facility emissions and any nonattainment area. What we are looking at now are stationary sources, such as factories and industrial facilities that release air pollutants from a fixed location. These are one of many sources of air pollution, which contribute to air quality.

Wind, mobile sources, and chemical reactions in the atmosphere strongly impact how air pollutants affect air quality.

This graphic from the 2014 National Emissions Inventory Report illustrates these air pollutant sources and their impacts. We will include a link to this graphic in today’s slides.

Other types of air pollution sources include

- Mobile sources, such as from vehicles and aircraft,
- non-point sources such as from agricultural areas, cities, and wood burning fireplaces, and
- natural sources like wind-blown dust, wildfires, and volcanoes.

Let’s open an example Air Pollutant Report to explore the data.

Note that the Air Pollutant Report presents both an Aggregate Emissions table and an Emissions Data table. The Aggregate Emissions table presents summed pollutants in each pollutant category, such as hazardous air pollutants or ozone precursors, while the Emissions Data table presents individual pollutant data.

We’ll look at the Emissions Data table to view pollutant emission amounts over time. Let’s sort the Pollutant column in descending alphabetical order.
Data on Sulfur dioxide appear in two rows in the table, under the NEI and CAMD programs. We can see that the trendlines for sulfur dioxide show a general decrease in emissions over time, although we do not have information about the cause of the decrease. Many power plants have implemented technologies that reduce emissions, and others have switched to burning fuels with lower sulfur content. Changes in production or market demand, and implementation of regulations may also account for changes in emissions.

Let’s look at the third section of the Air Pollutant Report, which is Environmental Conditions.

This section lists the nonattainment area information. As a reminder, nonattainment applies to the geographic location that the facility resides in and is not a characteristic of the facility itself. You can use this attainment data as an alternative to viewing the map layers on the results page.

At the top of the report there is a help button. Clicking this icon will take you to the Air Pollutant Report help page with more detailed information about how to interpret the data displayed in this report.

Okay, that’s the end of our examples.

In this webinar, we showed several examples of using the Air Facility Search, Detailed Facility Report, and Air Pollutant Report.

If you would like data that are older than what is displayed on the ECHO website, or if you would like to analyze data for a large number of facilities at a time, we recommend visiting the Data Downloads page.

You can access data sets from the ECHO home page by clicking on the Data Services tab, and then clicking on the National Data Sets link.

For example, the ICIS-Air Dataset includes historical compliance data for Clean Air Act regulated facilities. The Air Emissions data set includes combined air emissions data from all four emissions inventories that are displayed on the Air Pollutant report. We recommend using this dataset if you want data for more than one facility at a time.

Today, we demonstrated real-world examples of how to use the Air Facility Search and results, and how to interpret air emissions and compliance data on the Detailed Facility Report and Air Pollutant Report.

This slide presents a list of links to ECHO resources. 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.

This slide includes links to the other EPA websites mentioned during this demonstration. We will post these slides on the ECHO Training page.

Alright, now we’ll move on to the question and answer session.

So, the first question that we have is,

*How do I report an error in the data?*

Ok, so let’s go to a detailed facility report to show this feature. So, sometimes users will find errors in the data presented on the DFR and on other reports in ECHO. If you find a potential data error and you would like to submit a correction, you can do so using the Report Data Error button at the top of the
page. Selecting this button will open up a dialog window that explains how to report a potential data error. And then if we close this and scroll down, particularly on the DFR, you’ll see in certain tables yellow icons that have appeared in sections so that you can report an error on a particular row in that table. Clicking one of these icons will take you to an error report form where you can start the error correction process and provide specific information about the nature of the potential error. The links in today’s presentation slides provide additional guidance on how to go about reporting potential errors. We’ll go back to the home page.

Ok, we have another question that asks,

*I would like to see a way to narrow down high priority violation cases for a state, so I can tell if as a state that we have turned in all the things we need to, to EPA.*

Ok, let’s go to the Air Facility Search form. View More Search Criteria. Under Recent Violations, we have selections to choose specifically High Priority Violations, Addressed or Unaddressed for facilities in a state jurisdiction, and the same for a local jurisdiction or EPA lead, so you can search that way. And then also for informal and formal enforcement actions, you can tailor your criteria to search specifically for actions administered by state and local agencies as well.

I would just like to remind everyone that if you have any questions, you can still submit them to the questions box.

We have one question that asks,

*How can we find out if a facility is under administrative order?*

Ok. Good question. There’s a few ways. If you go to a detailed facility report and look at the formal enforcement actions, this table here at the very end of the enforcement and compliance section will list any enforcement actions within the last 5 years. So that’s if you already know the facility and have access to the facility report. Another option if you want to search for facilities, if we go back to the home page, you can use the facility case search, which you can get to by going to ‘Find EPA Cases.’ And then go click on more search options so you get the full search form. And you have a number of criteria here so you can search for enforcement cases and look at it kind of from the case view instead of from the facility view.

Ok, we have one user who said that they’re having trouble with the facility search download.

Ok, so if you’re on the facility search results and some of these features may not be working for you, we do suggest using google chrome as a browser, and then if you continue to have trouble and are not able to get the downloads, please contact us by using the links at the top right of every page, and we’ll help troubleshoot the issue.

We have another user that’s asking, why don’t the numbers for the CAP and CAMD match?

This must be in reference to the air pollutant report. Let me go back to our last example. So, we showed that there were reported emissions of sulfur dioxide in two programs, the NEI and CAMD. The values in the reporting years that overlap are similar, but they’re not exactly the same. The reason for this could be probably due to the reporting requirements for the particular program. We have four different
emissions programs and they all have different reporting requirements on what is measured, how it’s measured, and how it’s reported. We would encourage you to review the help documentation on the top of the page. And then we also have links at the very bottom of the page to information on the four emissions inventories so you can learn more about the scope and purpose of these emission inventories. Because they have a different purpose, the way that they’re measuring or asking facilities to report information may be slightly different, so we don’t expect them to be exactly the same because of the different purposes. But this is a really good way to look across that and kind of compare and look for differences. It could be one way to look for potential data errors after you understand the data program. Do we have any other questions?

We don’t have any other questions at the moment.

*Ok great thank you Melinda. Hi everybody, this is Rebecca Kane, ECHO project manager at EPA, and on behalf of all of us involved with ECHO training, thank you for participating in this webinar. If you think of additional questions about using ECHO, any questions at all, please feel free to contact us using that contact us link in the top right of any ECHO page. And also, I just want to remind you that a brief survey will open up as soon as this webinar ends and we would appreciate your feedback. Thanks again and I hope you have a great week.*