

## **ECHO Biosolids Facility Searches and Report Training**

### **Verbatim Transcript**

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#### **Weller, Leslie**

ECHO biosolids facility searches and report training.

Our goals for today are to learn about the biosolids data that is currently available in ECHO, learn about how to navigate the tools for biosolids, and understand the differences between the tools and each tool's key functionality.

So, for today's agenda will be to briefly go over the biosolids program, then jump to 3 tools and provide demonstrations, and then end with reviewing some of your questions from the Q&A.

An overview of the biosolids program. Biosolids are a product of wastewater, of the wastewater treatment process it is created when liquids are separated from the solids during treatment. And that results in a semi-solid, nutrient rich product. The term biosolids and sewage sludge are often used interchangeably by the public, we at EPA try to use the term biosolids to mean treated sewage sludge that meets the requirements in 40 CFR part 503 and is intended to be land applied as a soil amendment or fertilizer. While sewage sludge to mean an umbrella term that could be the product that is also disposed of, in a landfill, or incinerated. 40 CFR part 503 requires large POTWs, which stands for the publicly owned treatment works, to submit annual biosolids reports each year that do any of the 3 management practices that are specified in the rule. Those practices are number 1 land apply, number 2 they incinerate or, 3 they dispose of their sewage sludge via a practice called service disposal.

And who submits these reports. Those are the POTWs that serve 10,000 people or more, they are major POTWs, which means that they have a design flow rate greater or equal to 1 million gallons per day, POTWs that are class 1 sludge management facilities. And a class 1 facility has 2 definitions, it is either a treatment works with an approved pretreatment program or a facility that has been classified as such by the permitting authority, which is EPA or a state agency. Or they are required by a permitting authority because they have had an enforcement or compliance action. And now I will pass it over to Seth Draper to talk about the BCOE.

#### **Draper, Seth**

Yeah, hello, I'm Seth, the Biosolids Center of Excellence Coordinator. I manage the EPA's Biosolids program across the United States. We here are we are located in EPA region 7 located in Kansas City. We cover 41 states across the United States that don't have a direct state program. So, our function is to perform the compliance reviews for submitted annual reports. We also perform the functions of a compliance assistance role for both annual reporting process, the annual reporting process if you have questions about how to submit annual reports, questions in the form, implementation of biosolids, facilities may reach out to us to ask about those kinds of things and help them enter those data appropriately. In our compliance reviews we also will look at anything from instances of noncompliance and respond appropriately to those. We will look at instances of reporting and looking at the accuracy of those reports. That and so in instance of noncompliance we will sometimes reach out and do a responsive action such as, notice of noncompliance, an informal notice to to the facility via email, or in instances of a more severe noncompliance we will sometimes issue what we call an

expedited settlement agreement which is a penalty action or if it's anywhere near, any more severe, then we might enter in what's called an initiative order for compliance. And then in other instances when there's been reporting inaccuracies will reach out to those facilities to try to get them to revise the report so the data they submitted is most accurate to the both the biosolids program, the regulations, and the facilities actual disposal practices for their for their biosolids. Thanks.

## **Weller, Leslie**

Thanks, Seth. Okay, more on the biosolids program. In 2015 EPA promulgated the NPDES electronic reporting rule, which we often refer to as the eRule, this was a significant change from paper reporting to electronic reporting for both EPA and states and was implemented in 2 phases. Prior to the eRule the biosolids program annual reports were submitted on paper, which limited the availability of the data, the limited the availability of the utility of the data on a national scale, and the data was not standardized. So it was pretty difficult to analyze. The biosolids annual reports were the 1st reports to be electronically submitted in 2016 in the 41 states where EPA implements the federal biosolids program. The states Arizona, South Dakota, Texas, and Utah are states that are delegated to manage the biosolids program and have opted to use into using EPA's electronic tool. On the chart on the right, you can see the number of reports reported per year, so in the 1st year in 2016 EPA received around 1,900 reports, and then in 2017 through 2019 EPA received on average about 2,300 reports and then a big jump in 21 when the POTWs in Texas began reporting.

On the NPDES eRule phase 2 extension rule required the phase 2 biosolids annual reports to be submitted electronically by December 2025 in the 9 states with authorized biosolids programs, 4 of those 9 states, which include Arizona, South Dakota, Texas, and Utah have opted to use EPA's biosolids electronic reporting application. While the remaining 5 states which include Idaho, Michigan, Ohio, Oklahoma, and Wisconsin have approved phase 2 compliance deadlines.

And so how can ECHO help? ECHO stands for enforcement and compliance history online which provides integrated compliance and enforcement data for over a million facilities. ECHO has 2 biosolid search tools and a biosolids facility report that is available to the public, to centralize the biosolids program information.

So the tools that we will demo today are the, the biosolids annual report search, the biosolids facility search, and the biosolids facility report. The biosolids annual report search is primarily for POTWs but also other types of facilities that meet the class 1 designation. The biosolids the facility search is a broader search for biosolids is compliance and enforcement data, that includes some smaller facilities that may not be required to submit annual reports. The biosolids facility report integrates data from the annual report search in the facility search into a singular view by a NPDES ID.

So this is a screenshot of the biosolids annual report search. And the universe of the biosolids annual report is facilities on that are, the facilities that are included in the search have submitted the biosolids report electronically between the years 2016 to 2025. Each July we add an additional year of data to that search form, so this July 2026, we will add the 2026 reports. These searches are unique when compared to other applications in ECHO, because the data you see in ECHO is close to real time from submission So the data that is reported from the facility on Monday is available in ECHO on Monday, that same Monday. While other data that ECHO receives from other data systems such as ICIS-NPDES is available after a weekend data refresh which occurs on Saturdays. We do always try to ensure that the information we present in ECHO is as accurate as possible. However, since the data in this report is close to real time,

we have to note that some reports may contain errors as they are reported. And the ECHO team does not alter that data. What is submitted to us is what is visible in ECHO.

So for, within the biosolids annual report search, there are some criteria that you can narrow or broaden your search. The only required search criteria is that the reporting year, which is currently defaulting to 2025. You can narrow your search by a specific NPDES ID, geographic criteria, or, and management specific information, and so on and so forth. After you select your criteria, you can see links to different types of reports. You can access the help documentation, read descriptions of each field. You can also sort in the results table and download that data.

Now I will demo how to search for the biosolids annual report. I'm going to ECHO here, this is the ECHO homepage, which is [echo.epa.gov](https://echo.epa.gov). The biosolids annual report search is found in the blue tab on the left side of your screen named search options. So, on your screen you will see, in this section, under the section, there's a part that is called wastewater stormwater biosolids Clean Water Act. And you will want to click on the biosolids annual report link. And so, this is the search form here. To point out some features quickly in ECHO, so we have the yellow data caveats icon next to the choose your media program. So, if you click on that, you can read a description of the search universe. There is a blue help icon above this gray box search criteria selected. If you click on that, it will open a new tab into a general help page. If you want to search specific NPDES program criteria, you can select this, NPDES program area search criteria help, which will then open a new tab. If there's a specific field in the search form that you need to read a description of, you can click on that term or field in this list, and that is listed alphabetically and it will jump down to this in this page where that description of the field can be read. So I'm going to exit out of the help documentation. This gray box here is the search criteria selected, this will summarize the parameters or the fields that you enter your search criteria in where you can summarize that information here.

So if you want to narrow your search, you can enter the NPDES if you know it. You can enter the EPA Region here, and if you are unfamiliar what state falls within an EPA region, you can view the EPA region map and select the state which will automatically jump to the region. The biosolids annual reporter will always default to 2025 but you can search for any year as far back as 2016, the annual amount of biosolids generated you can select to choose dry metric tons within a certain range and you can toggle that range down below, here. The biosolids management practice type are the management practices that we discussed in a few slides ago plus the other. If you select one of these practice types, this is correlated with the biosolids management practice details. So, this will populate a list of practice details associated with a practice type. You can select more than one practice type, which will then broaden your practice detail options. If you do not select any practice types, there are no details that will populate. And below that is the biosolids violation type. Which we have the 3 types here land application, surface disposal, or incineration. If you select one or more this will populate and narrow the codes available if you would like to search on that criteria. If you do not select any type, all the codes will be available to select.

So I'm going to demo a pretty simple search just with EPA Region 3 and 2025.

### **Tuxbury, Courtney**

Leslie, could I just ask that you try and zoom in your screen a little bit? Thank you.

### **Weller, Leslie**

Okay. Oh, yeah. Yeah okay. Searching, so in my results, I see 244 annual reports found in my search criteria. In this search results in this tool, there you cannot customize columns in this tool, but you can download this data in a CSV file if you want to work with it in Excel for instance. You can sort the facilities in your search results by clicking on the facility name. These

are automatically defaulted to sort by the name ascending so you can change it to descending by just clicking on that header. And same with any other column here. If you want to collapse this current search criteria, you can click that blue arrow, to widen the table. And you can turn that back on if you'd like. You can expand the entire table to be full screen with the 4 arrows in the top right corner of your table. And there is the help icon again if you need help with any of the information in this table to understand what that means. So, in this table from left to right, you will see the facility name, basic facility information, then the reporting year. And then a high-level summary of the information in the annual report. Okay, and then this concludes the 1st tool. And again, this is the biosolids annual report. This is searching for facilities that reported a bio solids annual report and the high-level information about what was reported. I'm going to go back to the presentation. Okay, next is the biosolids facility search and again a screenshot of that search.

The search is going to look at higher level biosolids compliance and enforcement data and this universe is going to be a little bit broader. It will include any facilities with a biosolids permit component. A NPDES ID with an L in the 3rd character, and historically that has been how EPA has categorized or designated biosolids facilities. The NPDES ID that is data group 4, that was created with NPDES eRule for sewage sludge or biosolids, program reporters. And a facility that may not meet the larger universe information but had a violation or inspection, enforcement action designated to the biosolids program that would be included in this search.

This facility has more of an expansive search criteria. So, we may have options to search where the facility is located, permit information, when it was last inspected, the violations, enforcement actions, and penalty criteria. And in the search results, this can be viewed in a map or data table. In this search you can customize the columns, which was different than the previous search. You can download that data similar to the other search as CSV, you can filter on specific compliance and enforcement data, and link to other reports.

OK. I'm going to exit the presentation and go back to ECHO. Okay, back to the ECHO home screen same route as the previous demo. So, I'm going to select search options, but this time I'm going to select just biosolids and not the annual report, so just biosolids. The media program will default to biosolids based on the selection in the previous screen. There again is the data caveats about the universe here which is identical to the slide a few moments ago. There is also again the help icon and this is available in all search tools in ECHO. For the search form is a little bit different because it has multiple sections or more sections than the previous so you can collapse all of them or you can expand them one by one. You can view more search options with this magnifying glass here above the red search media program section. And if you select that to be on, the fields with that magnifying glass with the plus are the fields that are additional. And they are a little bit more niche or not as widely used. So that is why they, there's an option to turn some of them on or off. Sections available are geographic location, community, facility characteristics, or compliance and enforcement. You can search on one or all of these sections or categories of criteria that you would like.

I am going to open and expand the compliance and enforcement section for this demonstration. And if you were going to search for facility based on the compliance and enforcement section you can think of it as kind of like a pipeline. So first would you would start with the compliance monitoring activity. Then it would be the violations after that would follow the enforcement actions and the penalty. So, my demonstration, I'm going to select a compliance monitoring activity that occurred within the last 3 years. And for the violation, I'm going to select any violation origin within the last 3 years. And enforcement action, I'm going to choose formal, within in the last 3 years. And for a penalty I'm going to select penalties within the last 3 years and then all of these by any agency, the EPA state or any, I'm going to select any. You can look view these results in an interactive map which would show icons of where the facility is located in a map of the United States. And I, I like to look at my results in a data table,

so I'm just going to select the data table here. And you can review as before in every search tool you can view your criteria that you selected in your search in this gray box here just to make any last-minute changes if you would like. You can deselect the selections in this criteria in these, sections of this form by just, hitting the x here if you wanted to remove anything. I'm going to hit search.

Ok, so in my search results here, I see 9 facilities that were found. In this search results table, again, you can collapse this summary in your current search. You can expand the table to be full screen again, you can download this data as a CSV. And then you can also sort your, any of these columns by descend or ascend. You can, what's different from the search in the previous is you can customize columns. And so, if you did not want to see the FRS ID you could unselect that and update column and then that field or that column would disappear and you can select new columns that are not defaulted. So, the blue check marks are what is defaulted, but you can change your, what you want to see on your table. With these selections that you can turn on and off. If you're unaware of what these fields mean, you can again go back to the help icon, like I mentioned. Ok.

In the next demonstration I will get more into details about the facilities such as the penalty and the report itself coming up. Now I'm going to go back to the presentation.

Okay, the biosolids facility report, is also referred to as the BFR, and is the 3rd and last tool we will demo today. The universe for this is any facility that met the, either of the previous 2 criteria's, so if it was included in either of the search tools, we will have the facility report. The reports will provide a facility-based view, which is based on the NPDES ID. It does include high level permit information, summary details about the annual report data for the last 5 years, their compliance monitoring history for the last 5 years, violation history of the last 3 years and enforcement history of the last 5 years.

Okay, I'm going to demo this search now. I'm going back to ECHO. We can use the search that we just performed for this part of the demonstration. So, I will choose on the City of Lebanon for this demo. If you select the facility name, it'll take you to the detailed facility report, which is not specific to the biosolids program. So, to demo that, it'll open in a new link. This is the detailed facility report which is what we don't want for this demonstration. Instead, click on the W, the blue W icon under the report's column. And in this pop-up will be all the reports associated with this facility, so I will select the report MOL028037. And this is the biosolids report for this facility.

Okay, and so this will open up in a new tab. In this report, the sections include facility summary, annual report, enforcement and compliance. So, in this very top section here is the basic facility information, IDs, region, location, lat/long. Below that is the biosolids facility summary, which includes a high-level view of the information such as on the report such as the compliance monitoring activity and violations. Below that is the high-level overview of the permit itself, universe, status, effective, expiration date. And below that is the biosolids amount history in dry metric tons from the last 5 years. This is a summary from the annual report that this facility submitted. You can expand this table by clicking this black sideways triangle. And in this example, the facility had 2 types of land applications, so that is why there are these 2 rows here. If they only had 1, they would just be the 1. And there would also be multiple types of, types of management here as well if there was multiple. Down to the biosolids annual report section. At the top here, the reporting year defaults to 2025. You can again, go back to 2016 if you would like to. This is almost all of the information from the biosolids annual report. And down here is the biosolids reporting obligation from 2025. This is the reason why the facility was required to report in that specific year. And then we have the treatment processes of 2025, what they did during that reporting year, and the total amount of biosolids generated down here. Below that is the sewage sludge unique identifier, which is SSUID in short. Since this facility did

have 2 types of land applications there are 2 identifiers here, if it was a facility that had 1 type that would just be the 1 table with 1 identifier 001. Below that, the biosolids analytical methods, this is a table that provides details about the parameter and methods used for their analysis, and you can expand these rows here by clicking the black triangle. And this will give you more detailed information about the parameter and the specific method. Below that is the biosolids pollutant concentration for 2025. So here we have, again, that SSUID and if it since this facility had 2. Types of land application you can select between 001 and 002 to see the tables or charts for both types of land application. I'm just going look at the 001 for this demo. Sorry, I had to get a drink of water. Okay. So, if there is a key here down below on this chart the blue diamond means that there was no violations identified. The black square means that there was no data reported and then the red circle is there was a violation that was identified. And you can view this information in a tabular format if you click view, if you click view table here, you can look at it in this type of format if that's what you prefer. You can also download this data into a CSV file. If you hover over these diamonds here, you will see the monitoring period, the pollutants, units and in the values and limits. And you can do that for all of these different indicators here. Going down to the biosolids annual reports, and the additional information. If the facility had any comments or attachments that would be included in the report, you could see that here. If you are interested in reviewing, the information that is not available in ECHO, you can download the COR file and view additional details in this file. The last section is the compliance and enforcement, you can see if the facility had any compliance monitoring activity here for the last 5 years. The facility had 2 desk audits. Below that is the 3-year compliance history by quarter. This facility, their violations only occurred for 1 quarter at a time, but if this violation spanned, spanned across multiple quarters, you would see the start date in in like one box here and then there would be arrows to the end date. And the informal enforcement actions or formal enforcement actions from the last 5 years in this example, formal enforcement actions there are 2 enforcement, formal enforcement actions here. If you wanted to observe and review the case itself, you could collect, you could click on the case number. And that would take you to the civil enforcement case report where you can view further details about what that case entailed.

That concludes the end of the demonstrations for today so I'm going to go back to the slide presentation and we will stop recording.