e-GGRT Training Webinar on Reporting GHG Data for Subparts II and TT

U.S. Environmental Protection Agency
Greenhouse Gas Reporting Program (GHGRP)
June 2012

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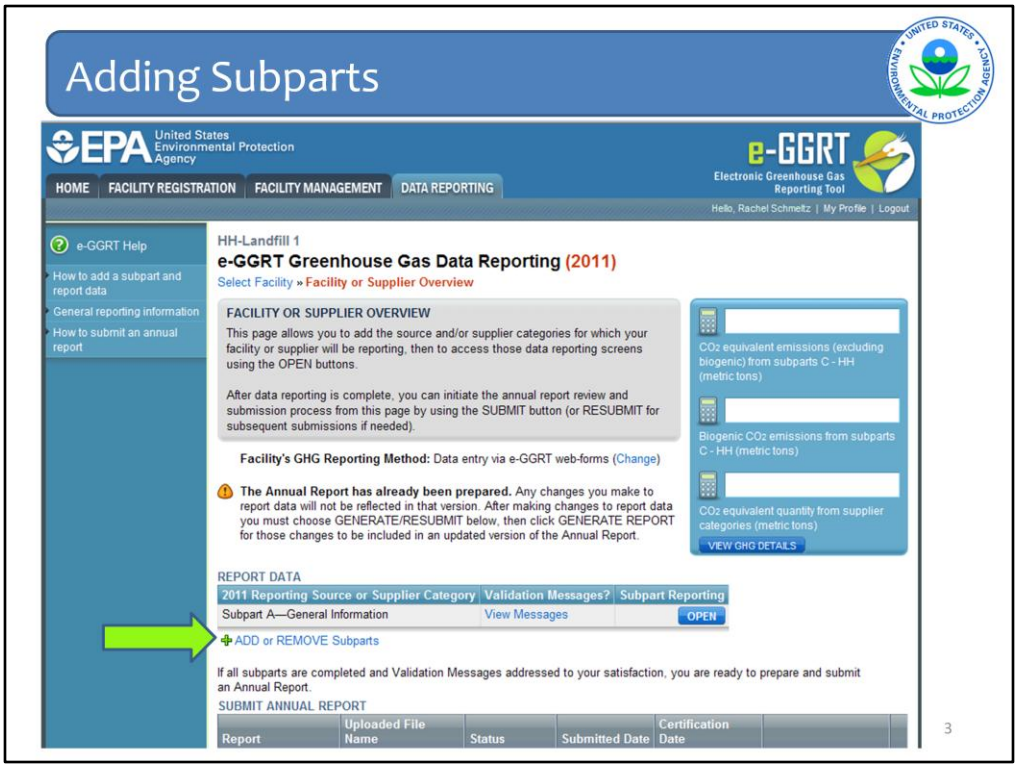
This training is provided by EPA solely for informational purposes. It does not provide legal advice, have legally binding effect or expressly or implicitly create, expand or limit any legal rights, obligations, responsibilities, expectations, or benefits in regard to any person.

For today's webinar please only submit questions regarding e-GGRT functionality. Question on other topics (rule requirements, legal issues, etc.) should be submitted to GHGReporting@epa.gov.

Also, today's webinar focuses on using e-GGRT to report emissions for subparts II and TT only. For more general information on registering a facility and reporting via e-GGRT, please go to the Training and Testing Opportunities Tab on our website and download the webinar slides that are posted. Webinars for other subparts may be found there as well.

Of particular note is a Sandbox Testing period that is currently underway starting today. This is a preview opportunity that will allow reporters to become familiar with the look, feel, and function of the RY2011 electronic reporting forms. The Sandbox will be open from today through June 15th and you can register to be a Sandbox tester at the Training and Testing Opportunities tab on the website as well. The URLs for the various webpages ar eon the last slide of this webinar.

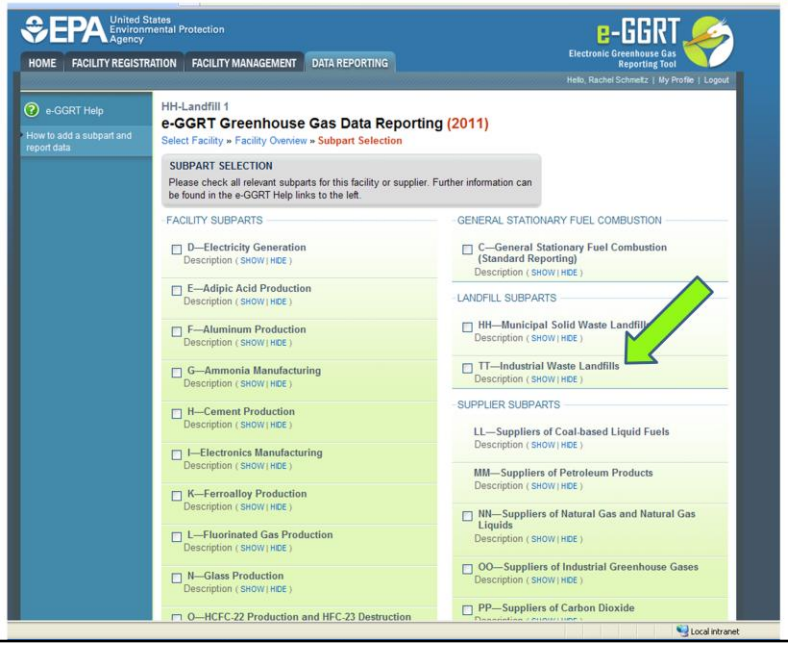


Subpart II – Industrial Wastewater Treatment and Subpart TT - Industrial Waste Landfills have different formats in the e-GGRT system. Subpart II reporters will use a simplified reporting format, whereas Subpart TT reporters will follow the webforms format.

Regardless of which subpart you are submitting for, in order to begin reporting for that subpart, you must add that subpart to your list of subparts on your Facility Overview page.

Click ADD or REMOVE a Subpart just below the Report Data box.

Adding a Subpart

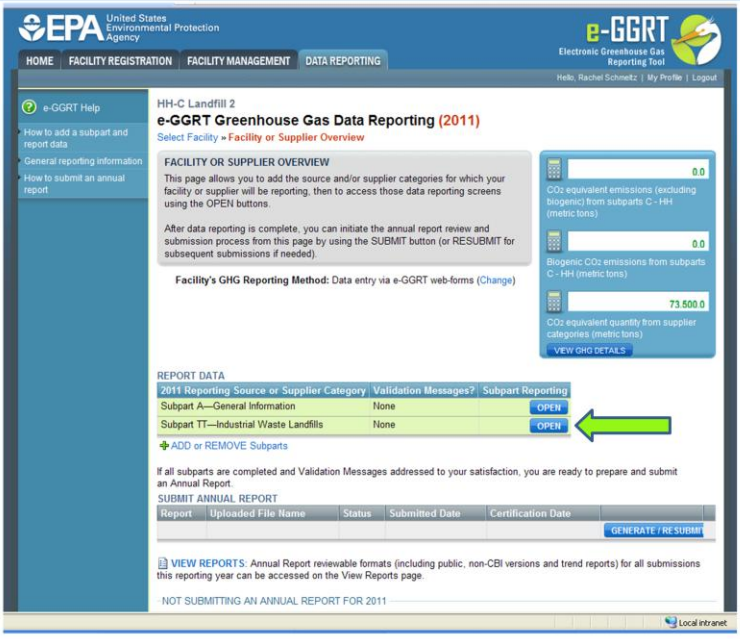


You will be brought to a list of all subparts in the GHG Reporting Program. Check the box next to Subpart II or TT depending upon which you are going to work on. We will click subpart TT first, since that subpart will be covered first in this webinar.

Note that un-checking a subpart will erase any data that was entered for that subpart.

You must then scroll down to the bottom of the page and click SAVE in order for this subpart to be added to your report.

Opening a Subpart



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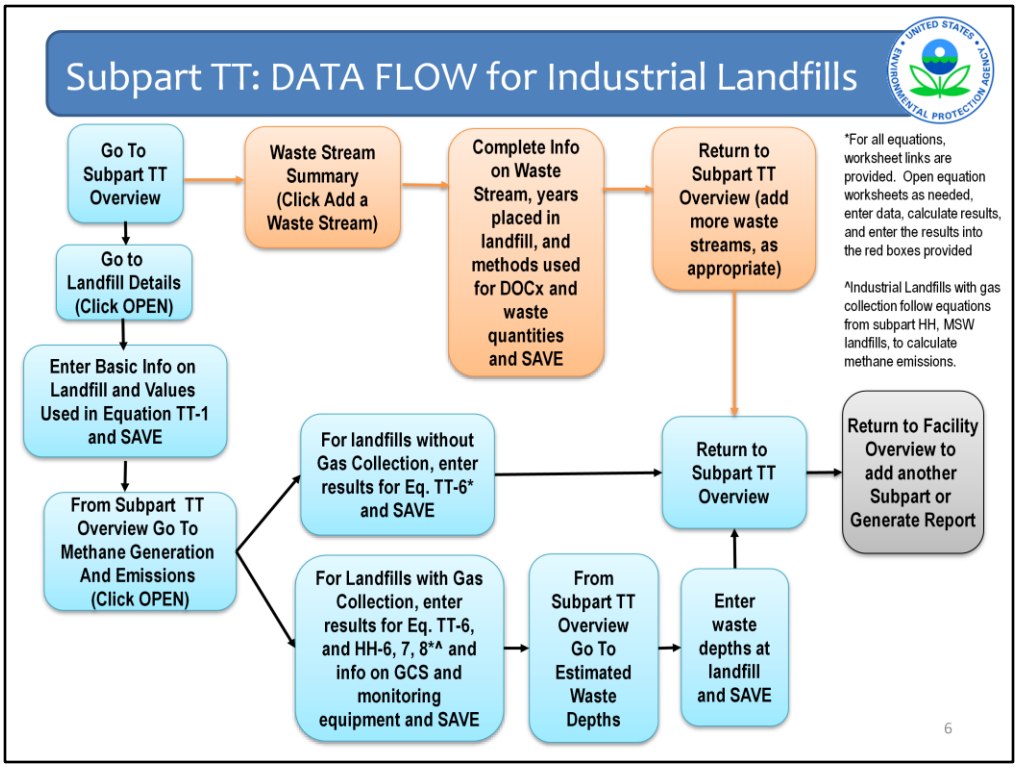
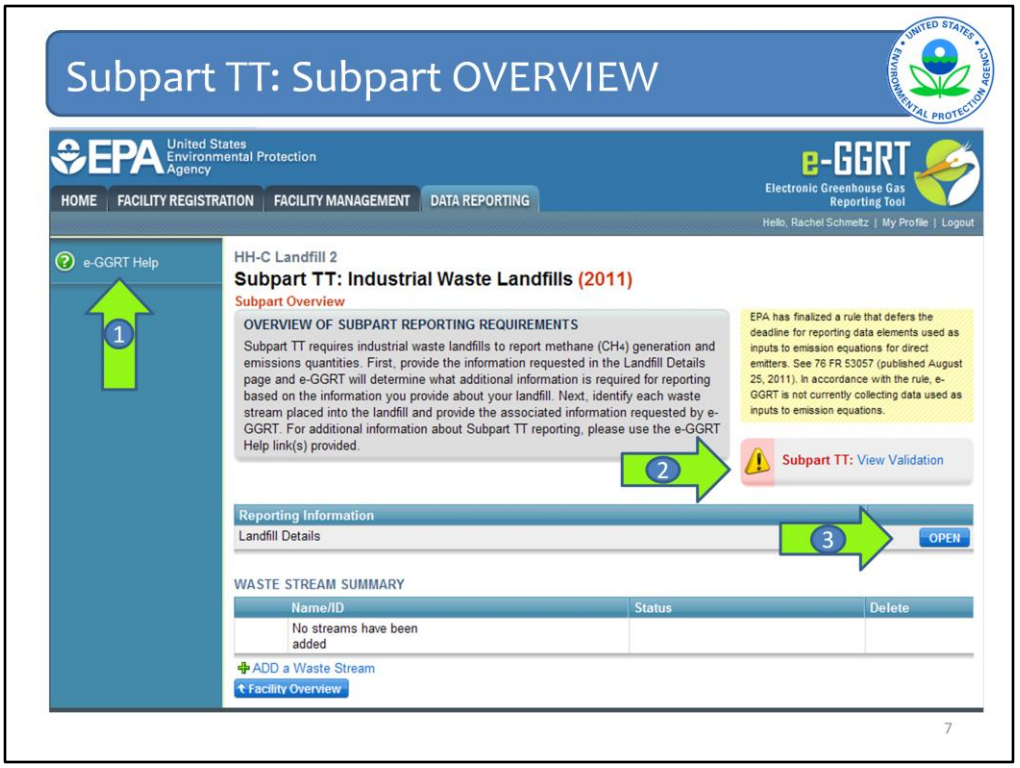
When you get back to the Facility Overview page you now see that Subpart TT has been added to your Report Data box. Click OPEN next to Subpart TT in order to begin data entry for this subpart.



This slide presents the flow of data entry for subpart TT. It is a busy chart because there is a lot of information to provide for Industrial landfills especially those that have landfill gas collection.

Each step in the process is provided in more detail in the rest of this webinar, so we will not spend time on each one here. However, this slide may be useful for future reference, such as when you are entering your actual facility data in e-GGRT.



Now we will go through screen by screen so you can see the information you will need to enter. Different features on the screens will also be pointed out.

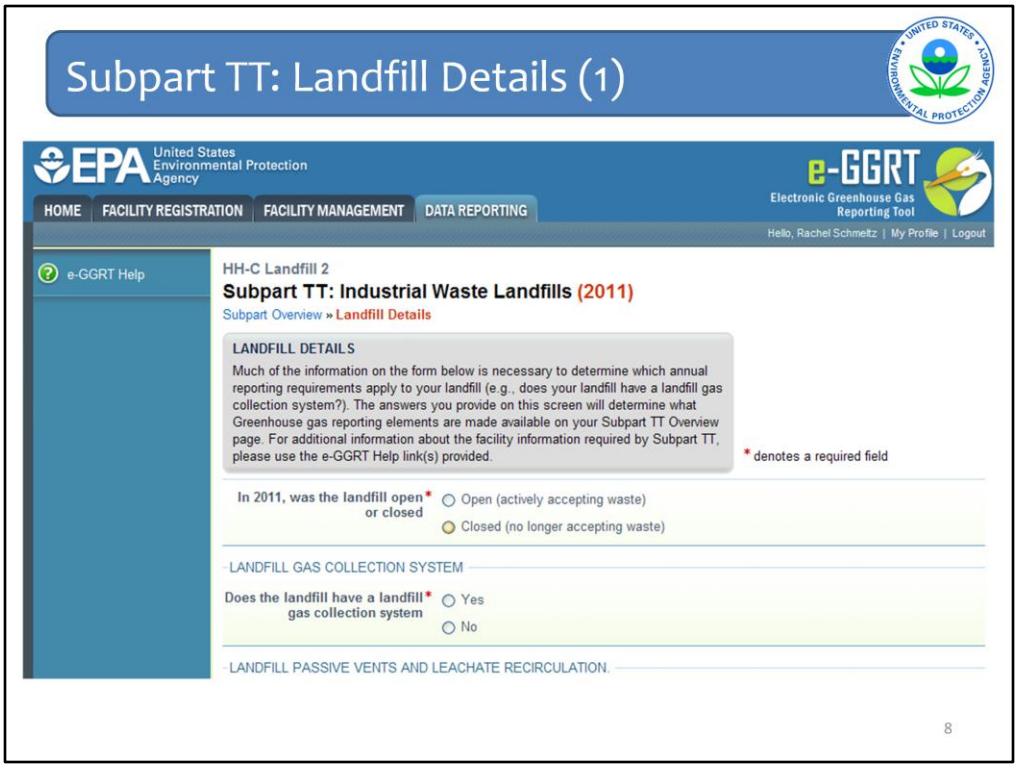
When you click OPEN next to subpart TT, you are taken to the Subpart Overview page. This is your "navigation page" for the entire module. Since we are just beginning the subpart TT module for this facility, all you see listed is the Landfill Details page.

Take note of Arrow #1 for the link to the e-GGRT Help pages.

Arrow #2 will tell you if you have any validation messages, that is, if there are any issues with your report so far. For example, if you did not complete a data field that is required or if the value you entered is out of the expected range of values for that field.

The gray boxes at the top of each page give a brief description of what that page is about. In this particular screen shot, the grey box provides an overview of the subpart reporting requirements and tells you to go the Landfill Details page first.

Click OPEN next to Landfill Details (Arrow #3) to proceed.



This is the Landfill Details page. It is very long so it has been broken up into sections for this webinar.

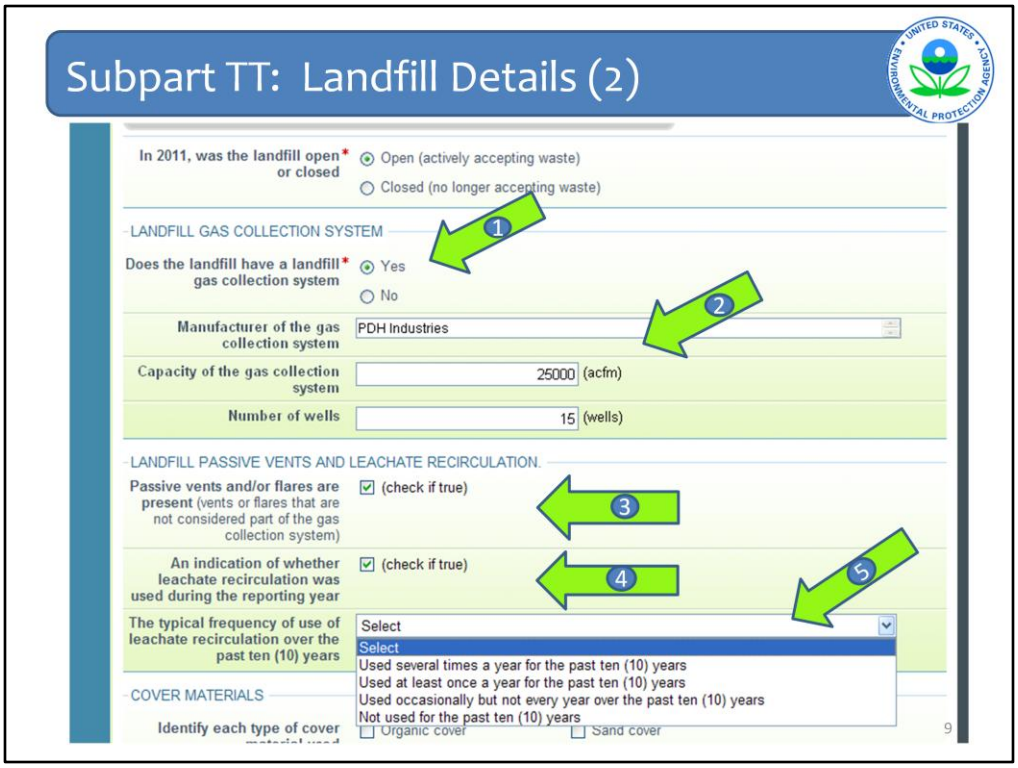
The first question is whether in 2011 the landfill was open or closed? A landfill is considered open if it is actively receiving waste in the reporting year. A landfill that closed during the reporting year, but also received waste during the reporting year is considered an open landfill for the particular reporting year. A landfill is considered closed if it did not receive waste in the reporting year.

Per the definition in the GHG reporting rule, an industrial waste landfill includes all disposal areas at the facility. In answering whether the landfill is open or closed, the reporter must answer that it is open if any sections and/or cells of the facility are open, even if some are closed.

In the subpart TT module as well as other modules, depending on how certain questions get answered, other questions might pull down for viewing and answering.

A good example is the second question here.

If the landfill does not have a landfill gas collection system, click “no” and continue answering the rest of the questions on the page.



If you say yes, that you do have gas collection, as is shown in this slide (Arrow #1), you then must indicate the manufacturer of the gas collection system, the capacity of the system in actual cubic feet per minute (acfm), and the number of wells present at the landfill (Arrow #2).

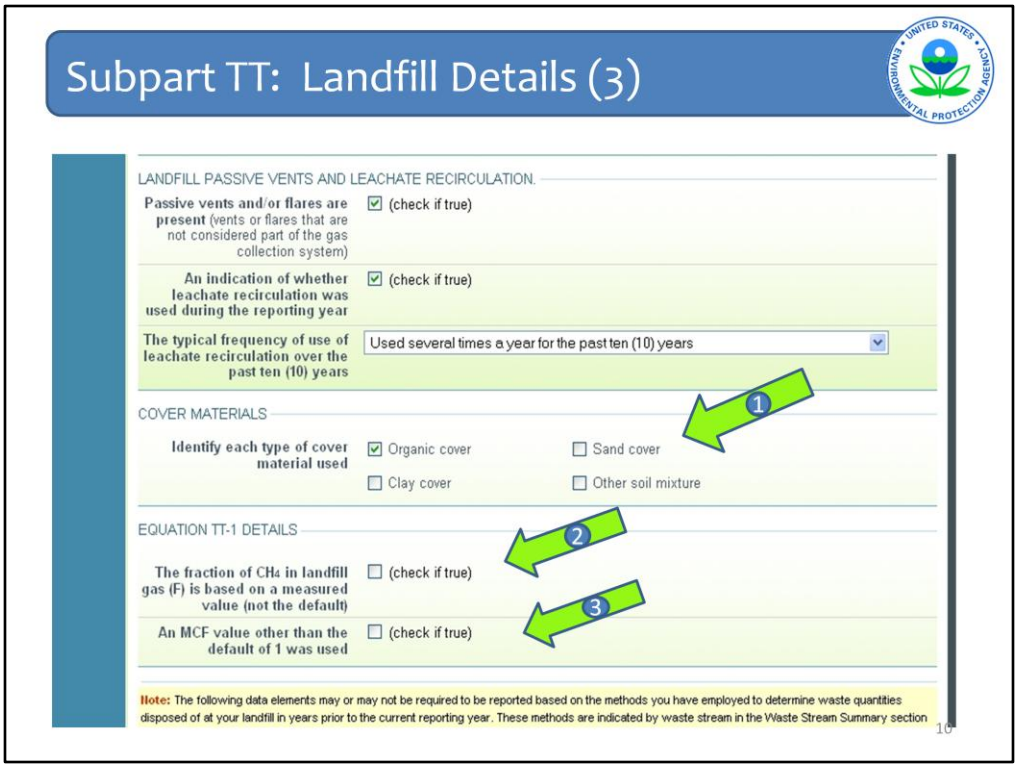
The ideal information to enter into the manufacturer of the gas collection system field is the designer or installer of the system, including if it was done in-house. If, for some reason, this information is not available, please enter the manufacturer of the fan or blower. Do not use this space to indicate the manufacturer of any flares at your facility. Please also do not use this space to indicate the brand of measurement equipment used to monitor landfill gas flow or methane concentration.

The indication of a gas collection system is a key piece of information because not only do you then have to answer these additional questions on the Landfill Details page, but your answer for gas collection also dictates the path of screens for the rest of your data entry. You will see this later in the webinar.

Next, indicate if passive vents and/or flares are present (other than as part of a gas collection system as defined in the rule) Check the box if you have passive vents or flares at your landfill. (Arrow #3)

You are then asked about leachate recirculation. Check the box if leachate recirculation was used at the landfill during the reporting year. (Arrow #4).

Next, answer the typical frequency with which leachate recirculation was used over the past ten years. You are given a pull-down menu from which you should pick the most appropriate option (Arrow #5).

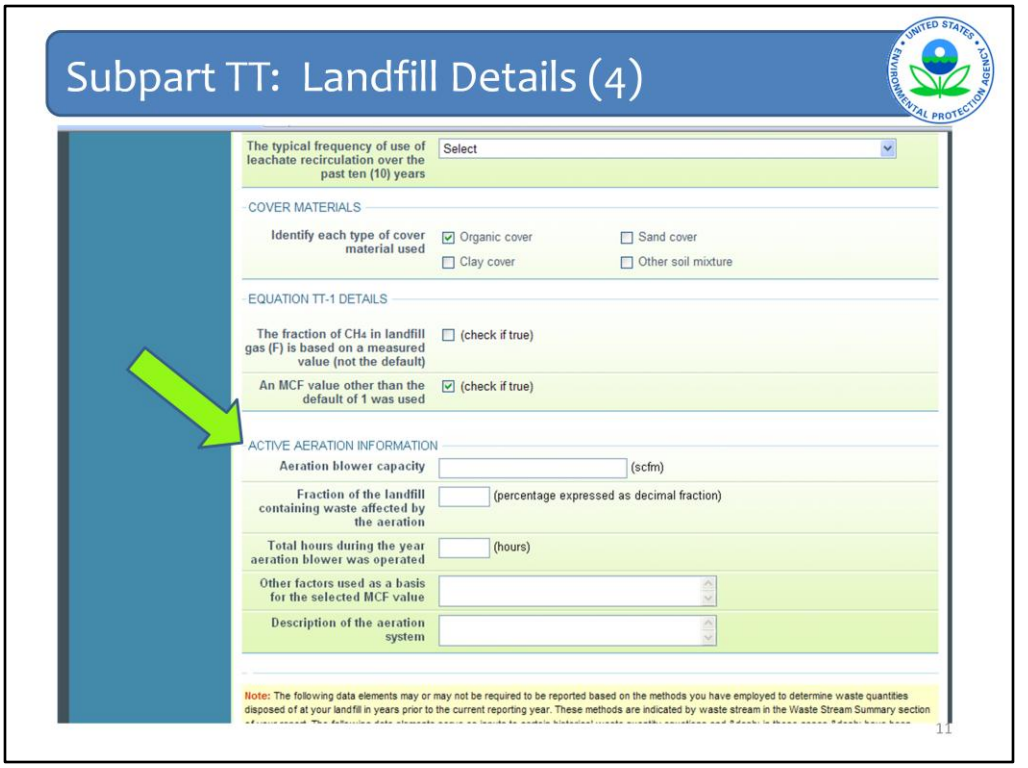


Continuing on the Landfill Details page, answer the question about the cover types used at your landfill. You may choose more than one answer if it is appropriate for your landfill. (Arrow #1)

Next, you are asked to consider two questions about the inputs used in Equation TT-1 for your facility. Recall that Equation TT-1 is used to calculate the amount of methane generated at your landfill.

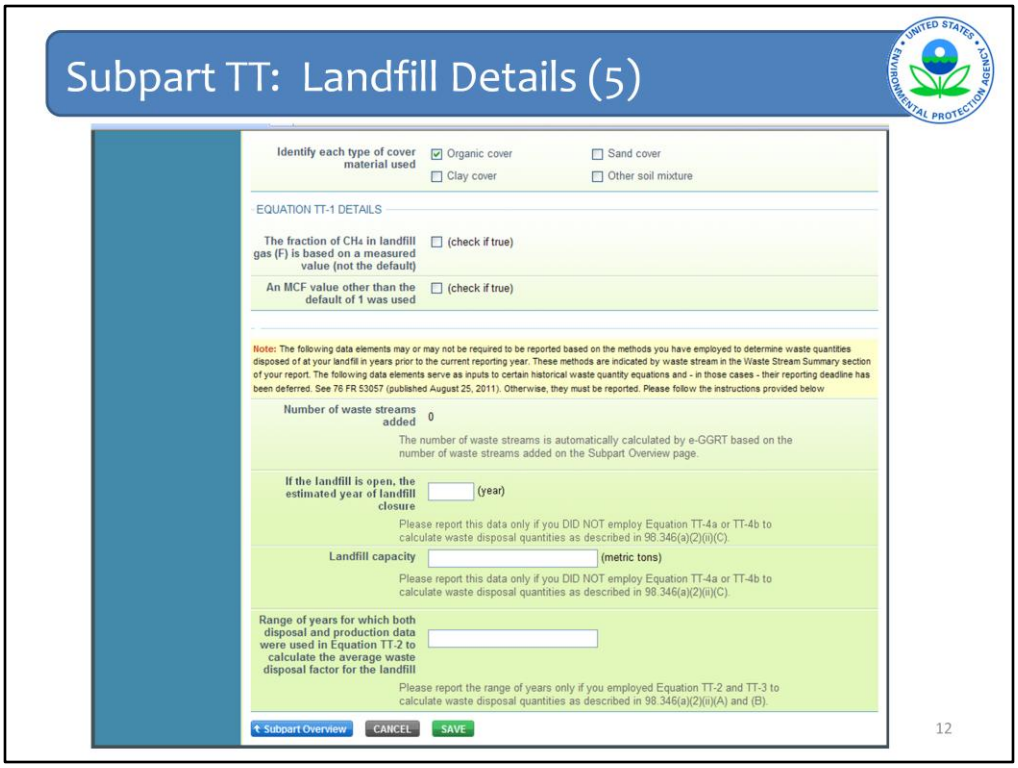
The first question under Equation TT-1 Details (Arrow #2) asks about the fraction of CH4 in landfill gas and whether you used the default value of 0.5. Check the box if the default was NOT used.

The second question (Arrow #3) asks about the methane correction factor (MCF) value used. Again, if the default of 1.0 was NOT used, check the box.



If you checked true for the second question about MCF, that means that you did not use the default value of 1.0 and that also means that you must have active aeration at your landfill. You must then enter the following information about the aeration system used at your landfill:

- The aeration blower capacity (include the total capacity of all blowers)
- The fraction of the landfill containing waste affected by aeration
- The total number of hours during the year in which the aeration blower was operated
- Other factors that were used as a basis for the MCF value that you used, and
- Any additional description of the aeration system that you would like to provide (for example, the number of blowers).



The last few questions on the landfill details page are contingent upon whether your landfill is open or closed and, more importantly, the methods you used to figure out the quantity of each waste stream that was placed in your landfill.

Take note of the Note in the yellow box: "The following data elements may or may not be required to be reported based on the methods you have employed to determine the waste quantities disposed at your landfill in years prior to the current reporting year . . . The following data elements serve as inputs to certain historical waste quantity equations and, in those cases, their reporting deadline has been deferred….Otherwise they must be reported. Please follow the instructions provided below."

Right under the yellow box is a field that is automatically populated by e-GGRT based on how many waste streams you reported at your landfill. We have not yet entered any waste stream information, and so this field is at zero. The process for entering information about the waste streams disposed at the landfill will be covered in later slides.

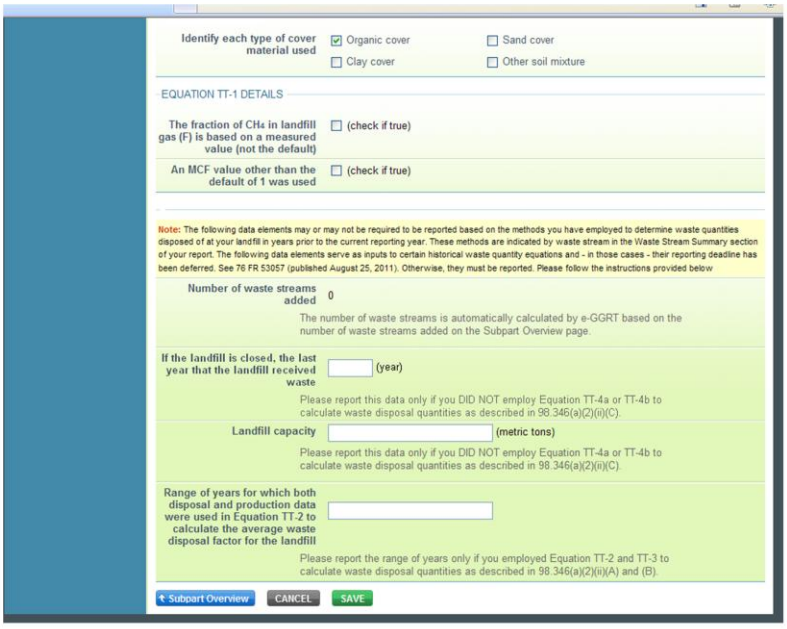
The next two questions are only supposed to be answered if you did not use Equations TT-4a or TT-4b to calculate waste disposal quantities in years prior to the reporting year.

In this case the landfill is open, therefore if you did not use either of the two equations to calculate waste quantities, you must enter the year that the landfill is expected to close. You must also provide the landfill capacity in metric tons.

The last question should only be answered if you used Equations TT-2 and TT-3 to calculate waste disposal quantities in years prior to the reporting year.

If you used these equations, you must provide the range of years for which both disposal and production data were used in Equation TT-2 to calculate the average waste disposal factor for the landfill.

Subpart TT: Landfill Details (6)



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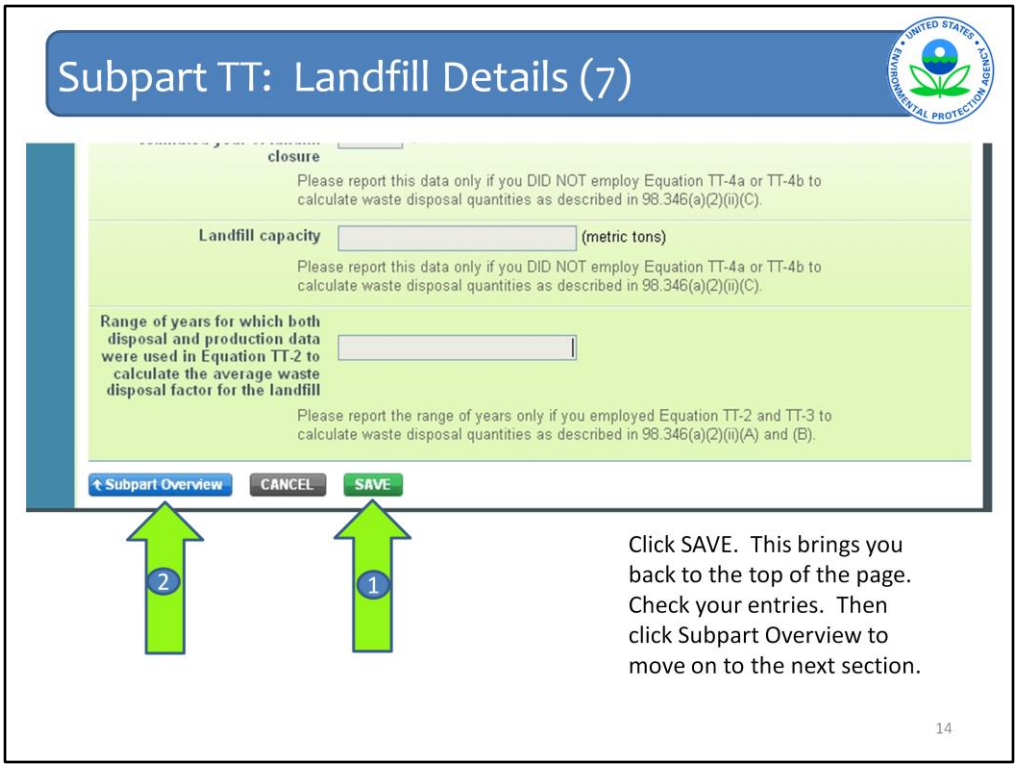
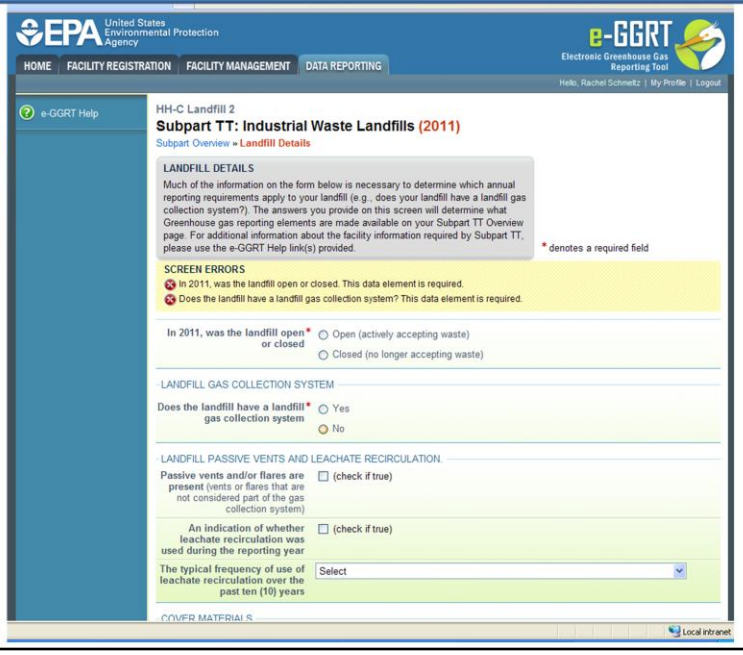
This is the version of the same questions when the landfill is closed. Please note that in this case you must fill in the last year that the landfill received waste.



When you have entered all of the information on the Landfill Details page, click SAVE by Arrow #1 on this slide. You will be brought back to the top of the Landfill Details page at which time you may check over the information you entered. When you have completed your check, click the Subpart Overview button by Arrow #2 to return to the Subpart Overview page.

Screen Errors if data is not entered



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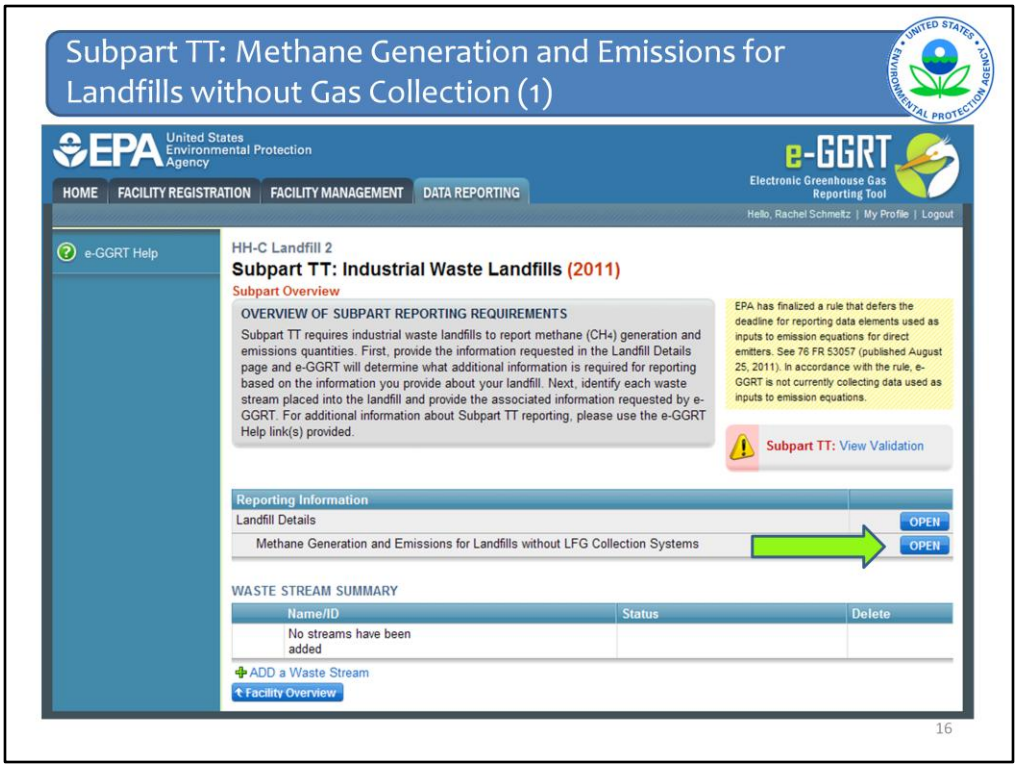
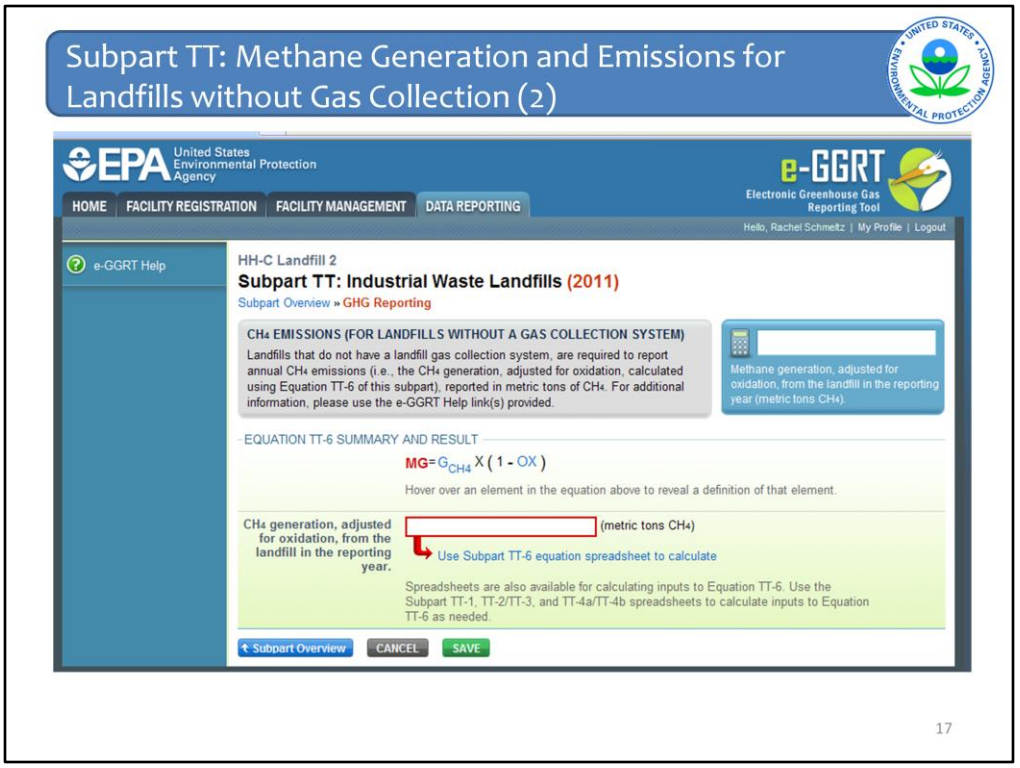
If you did not enter certain information that was required to proceed in e-GGRT, you will get screen error messages such as these telling you that you need to answer certain questions by selecting something, entering in values, or filling in text boxes. You will not be able to return to the Subpart Overview page and continue in e-GGRT until you enter this information and click SAVE.



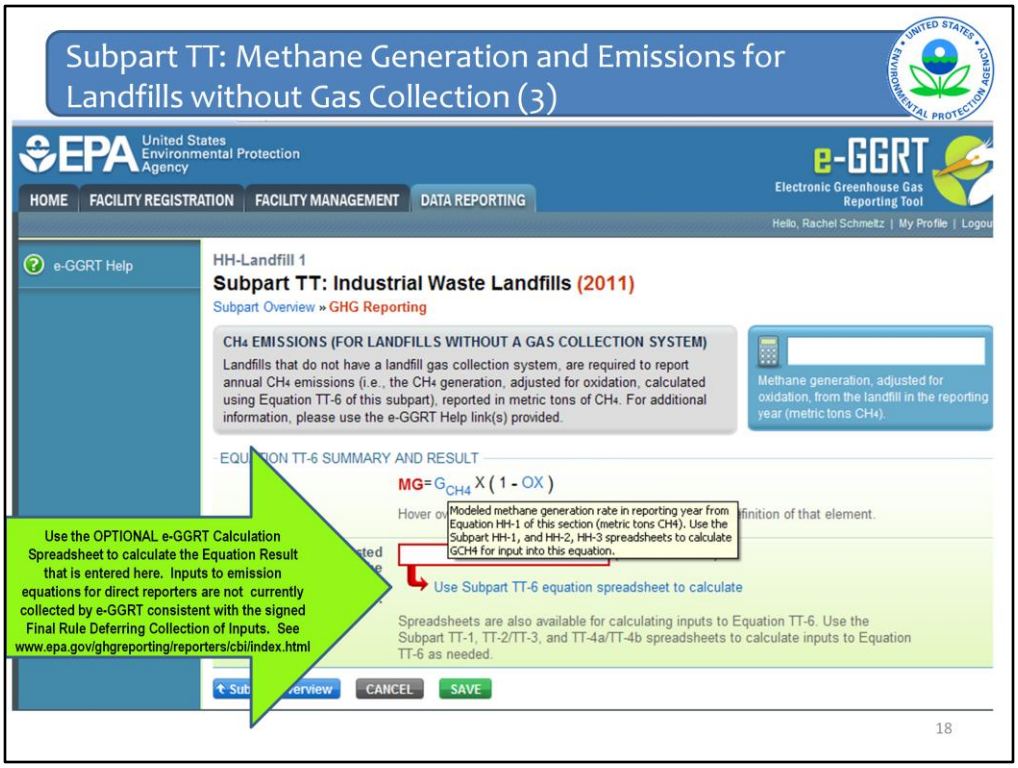
Now we move onto the portion of subpart TT related to reporting emissions.

How you answered the question about whether a landfill gas collection system is present at your facility will dictate which screens are now available for you to answer.

Let's say I said that my landfill did not have a gas collection system. A line will appear on the Subpart Overview page for Methane Generation and Emissions for Landfills without LFG Collection Systems. Click OPEN on this line.



Here you see Equation TT-6 which is used to estimate CH_4 generation, adjusted for oxidation, from the landfill in the reporting year (in metric tons of CH_4).

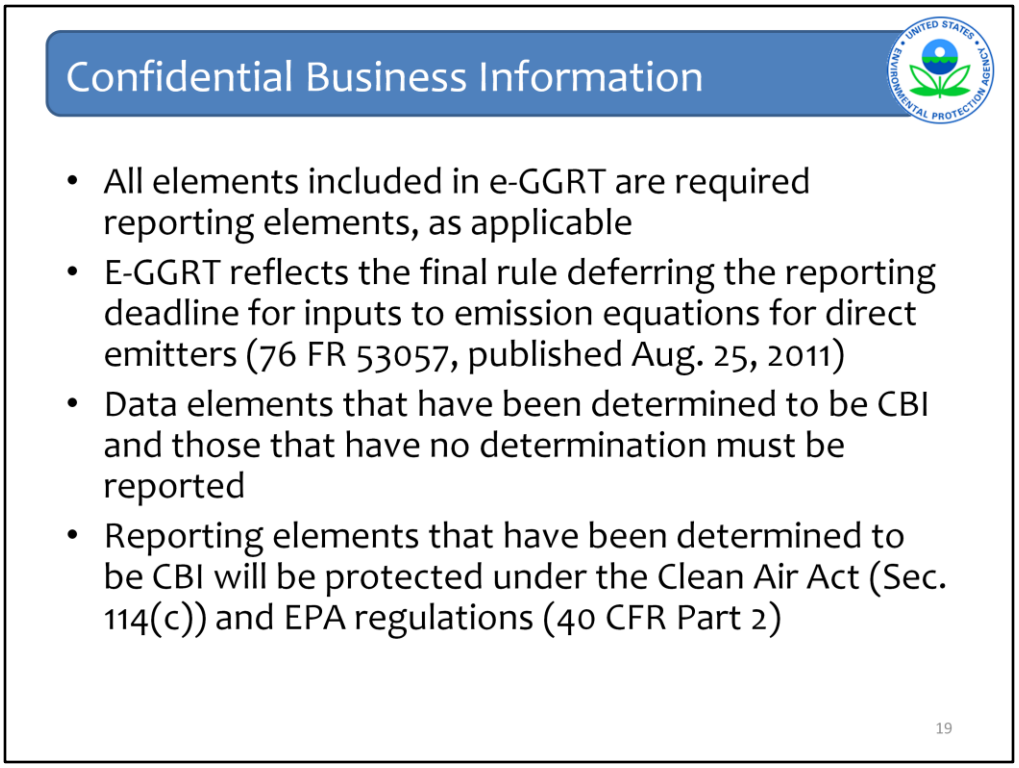


You can hover over an element in the equation to read a definition of that element as needed. Here you see the definition of G_{CH4} in the yellow box.

EPA is providing OPTIONAL calculation spreadsheets that you can use to perform the calculations called for in the emission equations.

If you choose to use the worksheets, download them by clicking the link labeled “Use TT-6 spreadsheet to calculate.”

Note: If you have used previous version of the calculation spreadsheets, please be sure to download the most recent version when performing your calculations for the current reporting year.



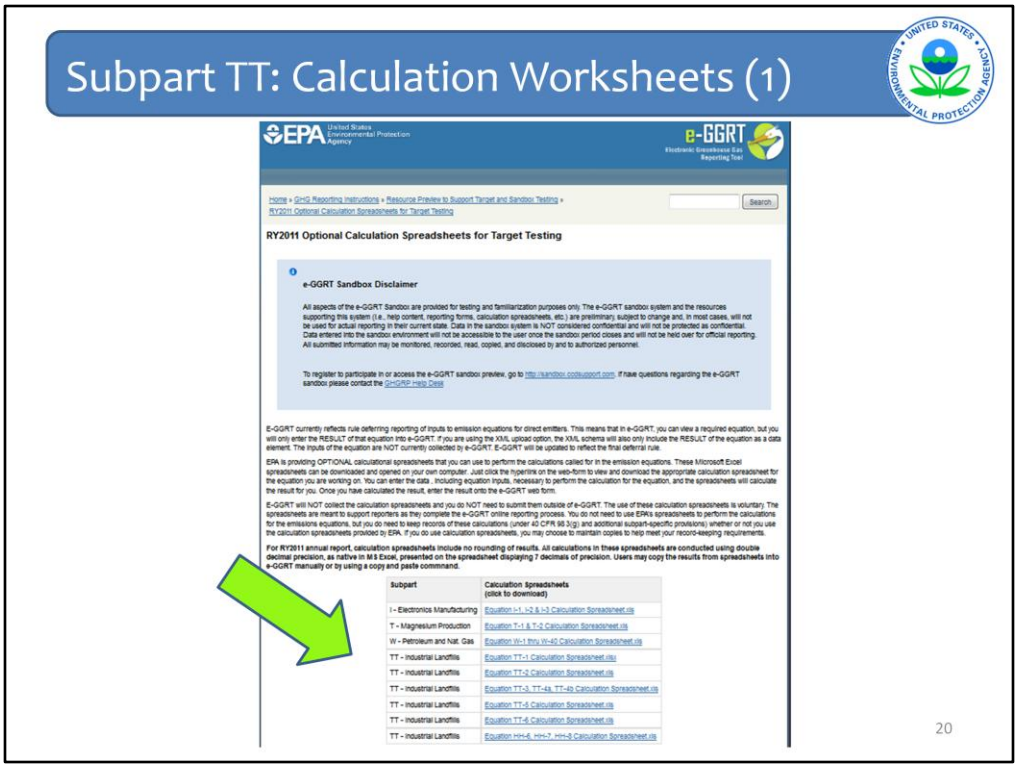
E-GGRT currently reflects the final rule deferring reporting of inputs to emission equations for direct emitters until either 2013 or 2015 depending upon the data element.

This means that in certain web forms in e-GGRT, you can view a required equation, but you will only enter the RESULT of that equation into e-GGRT. If you are using the XML upload option, the XML schema will also only include the RESULT of the equation as a data element.

The inputs of the equation are NOT currently collected by e-GGRT.

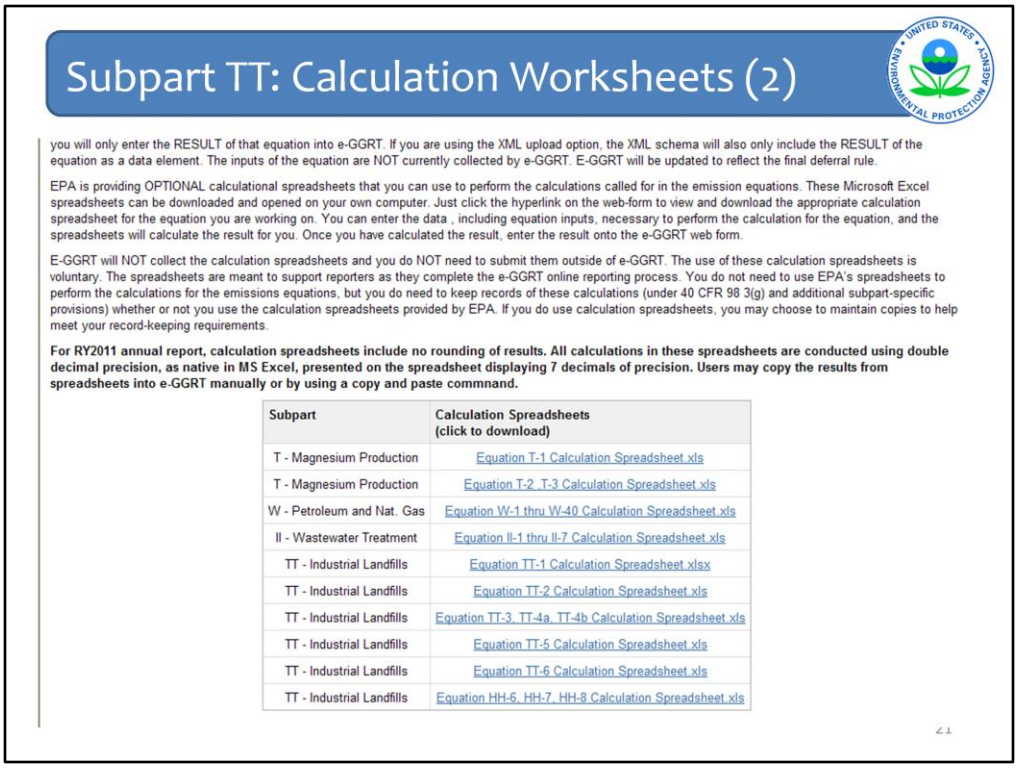
As stated previously, EPA is providing OPTIONAL calculation spreadsheets that you can use to perform the calculations called for in the emission equations. These Microsoft Excel spreadsheets can be downloaded and opened on your own computer. Just click the hyperlink on the web-form to view and download the appropriate calculation spreadsheet for the equation you are working on. You can enter the data , including equation inputs, necessary to perform the calculation for the equation, and the spreadsheets will calculate the result for you. Once you have calculated the result, enter the result onto the e-GGRT web form.

E-GGRT will NOT collect the calculation spreadsheets and you do NOT need to submit them outside of e-GGRT. The use of these calculation spreadsheets is voluntary. The spreadsheets are meant to support reporters as they complete the e-GGRT online reporting process. You do not need to use EPA's spreadsheets to perform the calculations for the emissions equations, but you do need to keep records of these calculations (under 40 CFR 98.3(g) and additional subpart-specific provisions) whether or not you use the calculation spreadsheets provided by EPA. If you do use the spreadsheets, you may choose to maintain copies to help meet your record-keeping requirements.



Again, if you choose to use the optional worksheets, download them by clicking the links on the screen that contains the Equation you want to use.

This is what you will see when you click on the worksheet link. You can click the links to access the worksheets themselves. You can see here that this is a screen specific to the testing period. This link and screen will be updated for when the e-GGRT system goes live for reporting in August of 2012.



Subpart TT: Calculation Worksheets (2)

you will only enter the RESULT of that equation into e-GGRT. If you are using the XML upload option, the XML schema will also only include the RESULT of the equation as a data element. The inputs of the equation are NOT currently collected by e-GGRT. E-GGRT will be updated to reflect the final deferral rule.

EPA is providing OPTIONAL calculational spreadsheets that you can use to perform the calculations called for in the emission equations. These Microsoft Excel spreadsheets can be downloaded and opened on your own computer. Just click the hyperlink on the web-form to view and download the appropriate calculation spreadsheet for the equation you are working on. You can enter the data , including equation inputs, necessary to perform the calculation for the equation, and the spreadsheets will calculate the result for you. Once you have calculated the result, enter the result onto the e-GGRT web form.

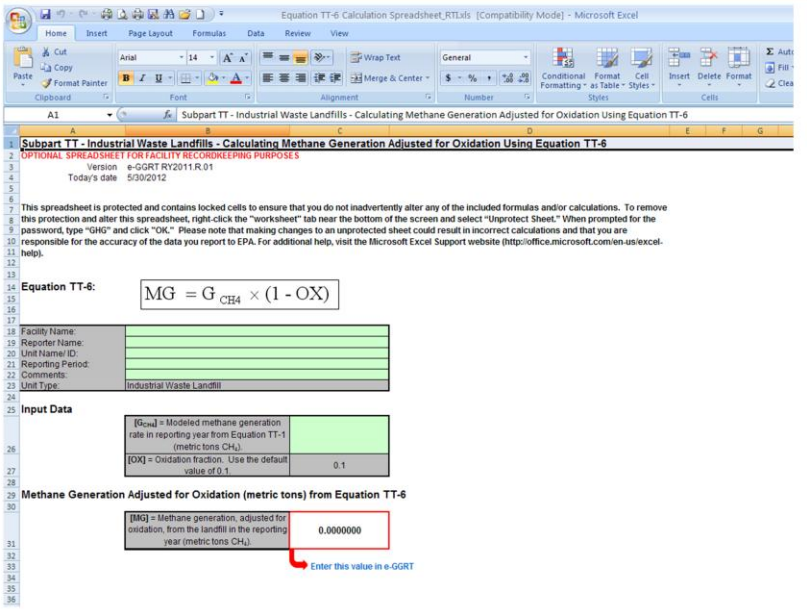
E-GGRT will NOT collect the calculation spreadsheets and you do NOT need to submit them outside of e-GGRT. The use of these calculation spreadsheets is voluntary. The spreadsheets are meant to support reporters as they complete the e-GGRT online reporting process. You do not need to use EPA's spreadsheets to perform the calculations for the emissions equations, but you do need to keep records of these calculations (under 40 CFR 98 3(g) and additional subpart-specific provisions) whether or not you use the calculation spreadsheets provided by EPA. If you do use calculation spreadsheets, you may choose to maintain copies to help meet your record-keeping requirements.

For RY2011 annual report, calculation spreadsheets include no rounding of results. All calculations in these spreadsheets are conducted using double decimal precision, as native in MS Excel, presented on the spreadsheet displaying 7 decimals of precision. Users may copy the results from spreadsheets into e-GGRT manually or by using a copy and paste commnand.

Subpart	Calculation Spreadsheets (click to download)
T - Magnesium Production	Equation T-1 Calculation Spreadsheet.xls
T - Magnesium Production	Equation T-2 ,T-3 Calculation Spreadsheet.xls
W - Petroleum and Nat. Gas	Equation W-1 thru W-40 Calculation Spreadsheet.xls
II - Wastewater Treatment	Equation II-1 thru II-7 Calculation Spreadsheet.xls
TT - Industrial Landfills	Equation TT-1 Calculation Spreadsheet.xlsx
TT - Industrial Landfills	Equation TT-2 Calculation Spreadsheet.xls
TT - Industrial Landfills	Equation TT-3, TT-4a, TT-4b Calculation Spreadsheet.xls
TT - Industrial Landfills	Equation TT-5 Calculation Spreadsheet.xls
TT - Industrial Landfills	Equation TT-6 Calculation Spreadsheet.xls
TT - Industrial Landfills	Equation HH-6, HH-7, HH-8 Calculation Spreadsheet.xls

Here is a closer look at the list of calculation spreadsheets available for subpart TT. As we will discuss in later slides, industrial waste landfills that have gas collection follow the equations from subpart HH in order to calculate their methane emissions. That is why this list includes both subpart TT and subpart HH calculation spreadsheets. Click on the link for the equation you are looking to calculate. In this case we are looking to calculate methane emissions from a landfill without gas collection using Equation TT-6.

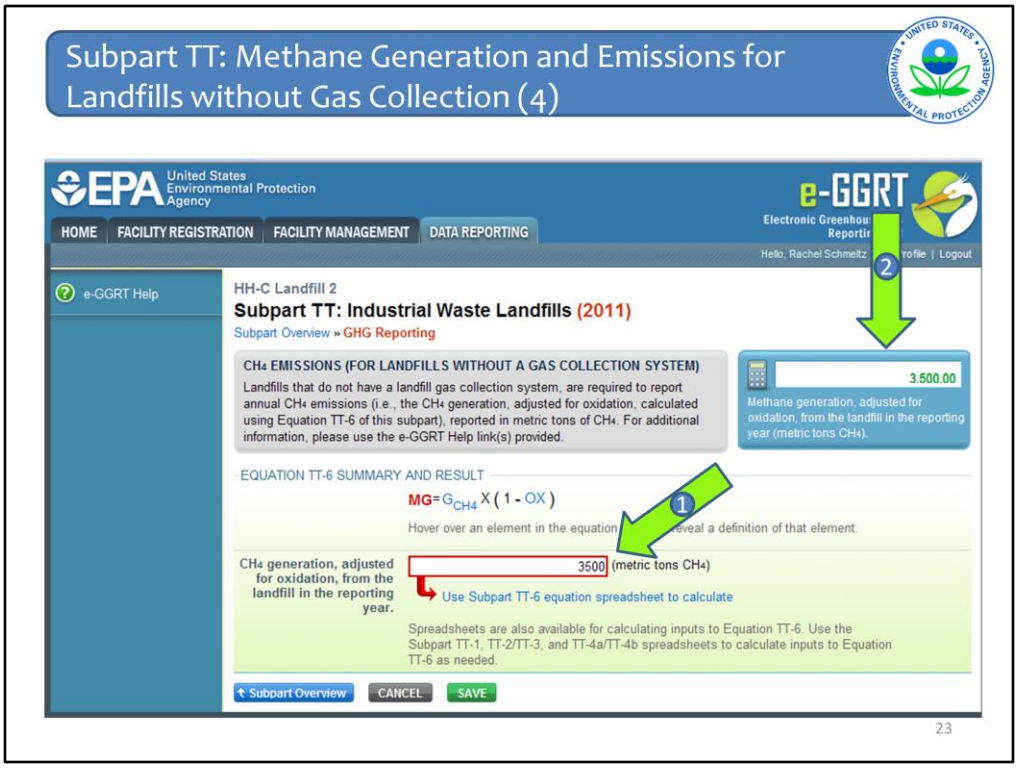
Subpart TT: Calculation Worksheets (3)



This is the Equation TT-6 worksheet. Again, note that this worksheet is optional.

Your input data goes into the green boxes. The grey boxes contain standard fields such as variable definitions and required default values to use in the equation. The red box contains the equation result that you will then have to enter into the red boxes back on the e-GGRT data entry pages.

Some green boxes represent inputs to the equation that are the results of a calculation itself. Such is the case here with G_{CH4} which is the result of Equation TT-1. In these cases, you can also access an optional calculation worksheet and help screen to assist you in calculating the result of that equation (see previous slide).

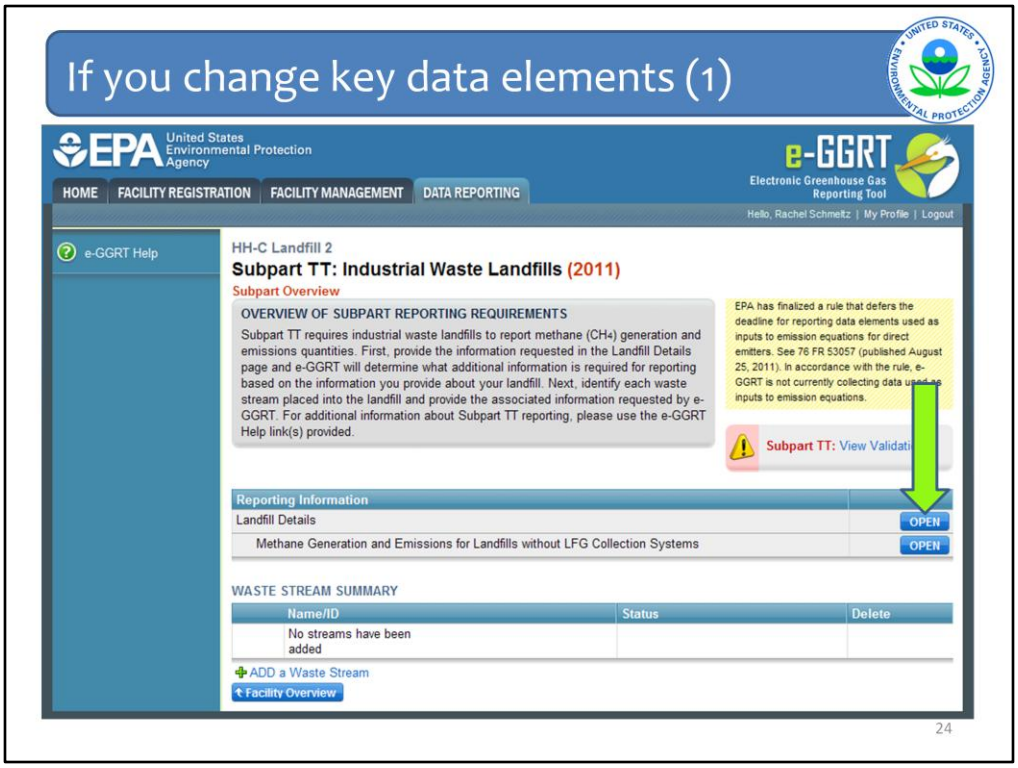


Take the value calculated in the red box from the worksheet or from however else you derived your methane generation value adjusted for oxidation via Equation TT-6 and enter it into the red box on this screen in e-GGRT indicated by arrow #1.

You'll then see these numbers in the calculator as shown by arrow #2.

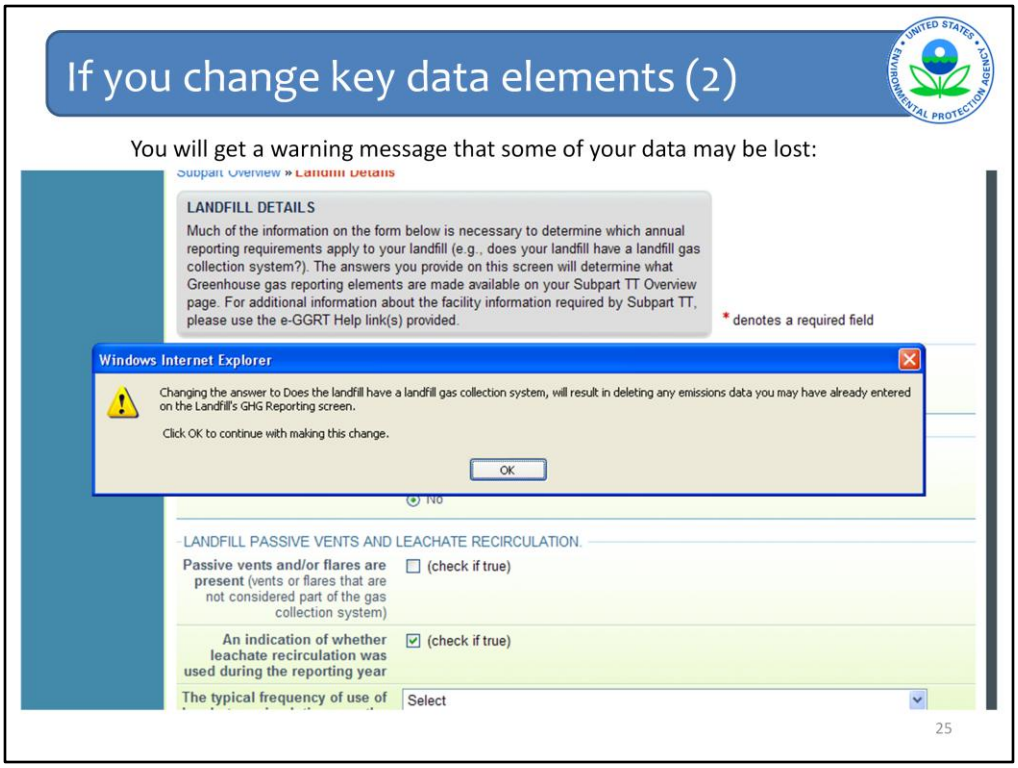
That is all that is needed in terms of equation results for landfills without gas collection.

You will then click SAVE, check your value, and then go back to the Subpart Overview page



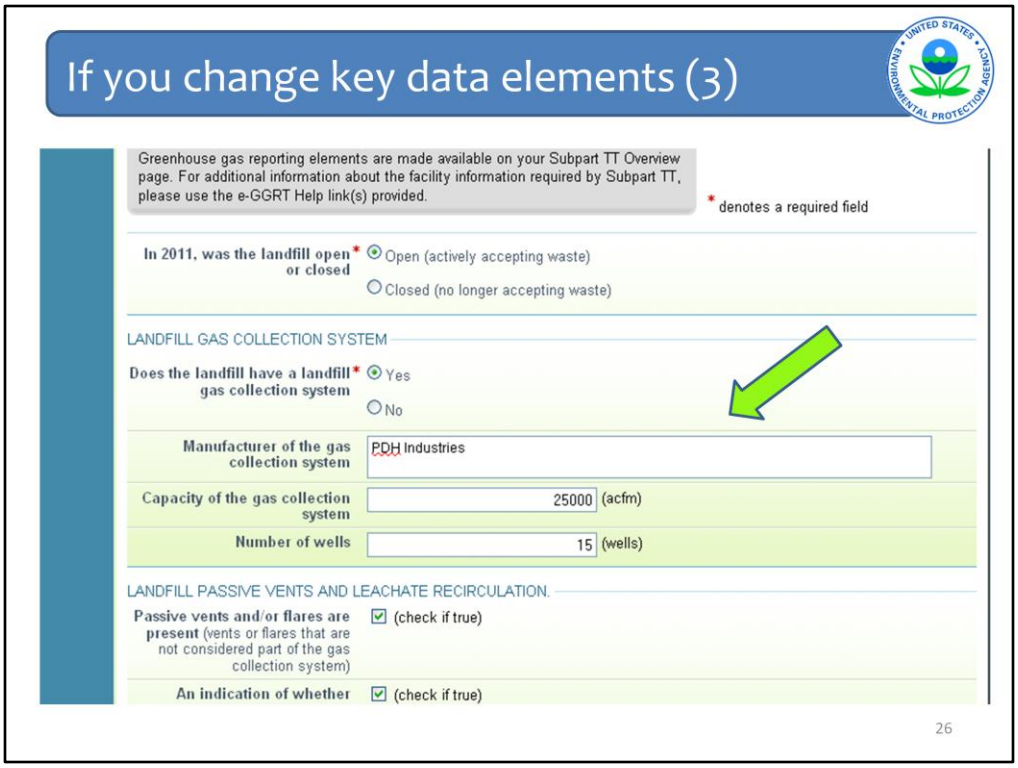
Let's say I realized that my landfill really does have gas collection and I made a mistake in saying that it did not.

Back at the Subpart Overview screen I can click OPEN next to Landfill Details to change the information about the gas collection system.



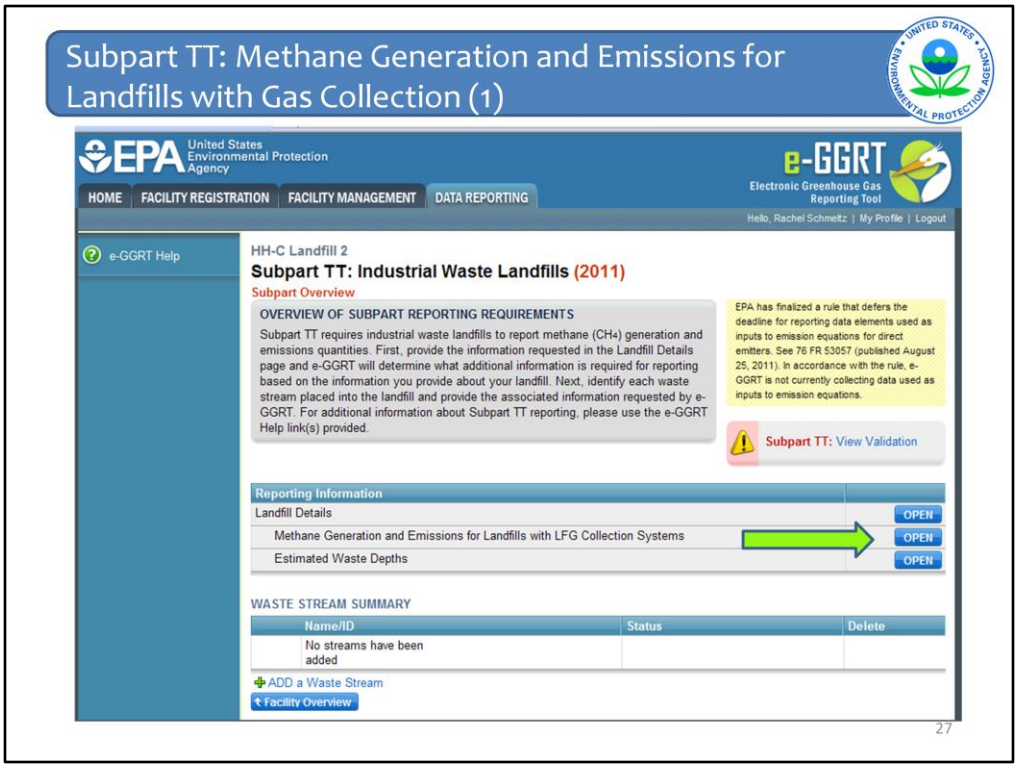
But when I go to change my answer to the question about whether my landfill has a gas collection system, I get this warning message.

This warning message is telling me that I am about to make a major change to my facility data that will have significant implications. For example, by making this change I am in effect erasing a whole subset of data from my record. Do I really want to do that? If I really do, as is the case here because I do have gas collection, I click OK.



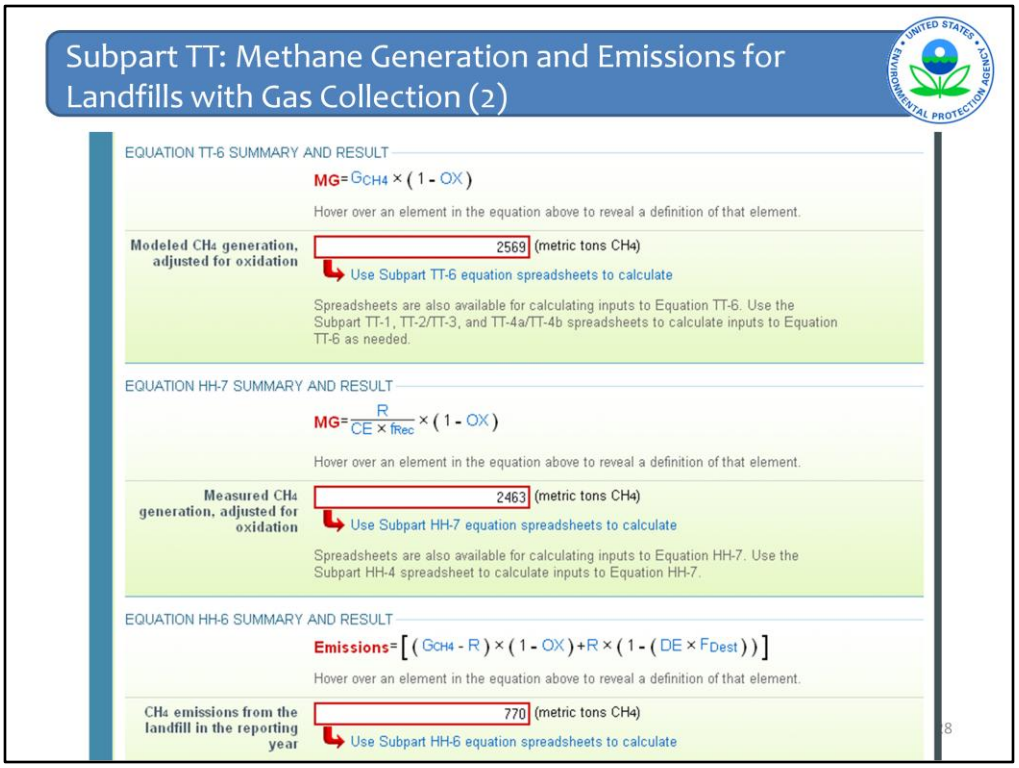
When I clicked OK, and the answer changes to Yes that I do have a gas collection system. Then I'm prompted to answer the questions about my gas collection system including the manufacturer, capacity, and number of wells discussed on a previous slide.

I then click SAVE at the bottom of the page, check my answers and then click Subpart Overview to proceed with the rest of the data entry.



Because I said yes to the landfill gas collection system question on the landfill details page, a different path of pages now appears on the Subpart Overview page.

Click OPEN next to Methane Generation and Emissions for Landfills <u>with</u> Gas Collection Systems.



Next enter the appropriate values in metric tons of CH_4 for all of the red boxes.

First, the modeled CH_4 generation, adjusted for oxidation using Equation TT-6

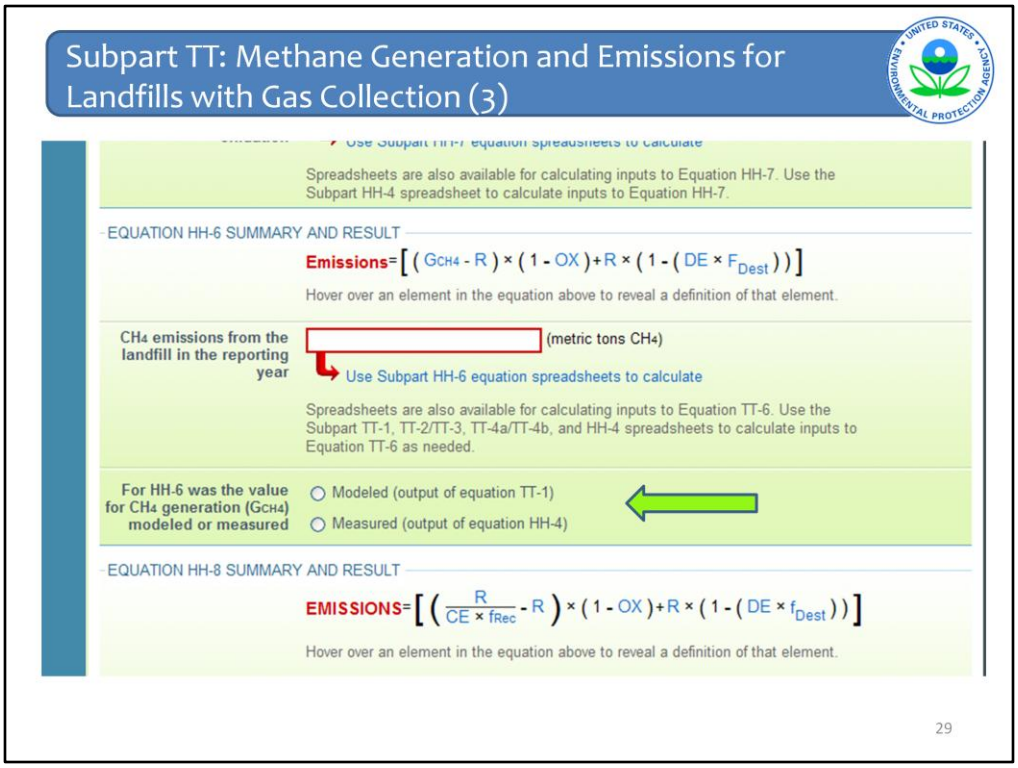
You will notice that Subpart TT starts referencing Subpart HH Equations here. Subpart HH is the subpart for Municipal Solid Waste landfills and rather than recreate the wheel, the rule directly references Subpart HH for all monitoring requirements and calculations related to landfill gas collection systems. So, if your industrial waste landfill has a gas collection system, you must follow the subpart HH equations to complete your methane generation and emissions calculations and complete the remainder of the red boxes in e-GGRT for:

- Measured CH_4 generation, adjusted for oxidation using Equation HH-7
- CH_4 emissions from the landfill during the reporting year using Equation HH-6, and
- CH_4 emissions from the landfill during the reporting year using Equation HH-8

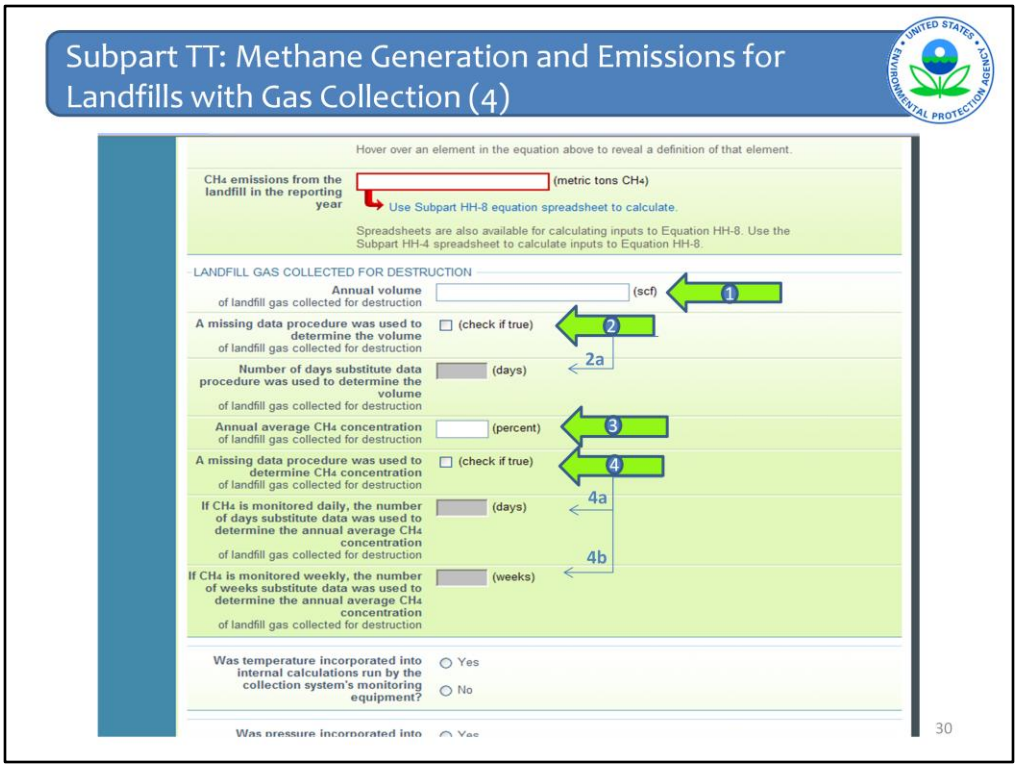
As mentioned previously, for each equation:

- You can hover over an element in the equation to see the definition of that element.
- You may calculate the result using the worksheet tools provided, but you are not required to do so. Again, worksheets are also available for calculating inputs to the equations.
- If you choose to use the worksheets, download them, fill in the green boxes, and then copy the value of CH_4 calculated by the worksheet to this page in the corresponding red boxes.

Note that for Equations HH-6, HH-7 and HH-8, the optional calculation spreadsheet file has several tabs which are appropriate for different numbers of destruction devices and different numbers of monitoring/measurement locations at the landfill. Please consult the help screens when you click to the spreadsheets to ensure the appropriate use of the various tabs.



You must also indicate whether the input to Equation HH-6 was modeled or measured, that is, was the value the result of Equation TT-1 or Equation HH-4.



Next enter the annual volume of landfill gas collected for destruction (Arrow #1).

Indicate if a missing data procedure was used to determine the volume of the landfill gas collected for destruction (Arrow #2). Information about appropriate procedures for estimating missing data is found in §98.345.

If a missing data procedure was used, enter the number of days when substitute data were used to determine the volume of the landfill gas collected for destruction (Arrow #2a).

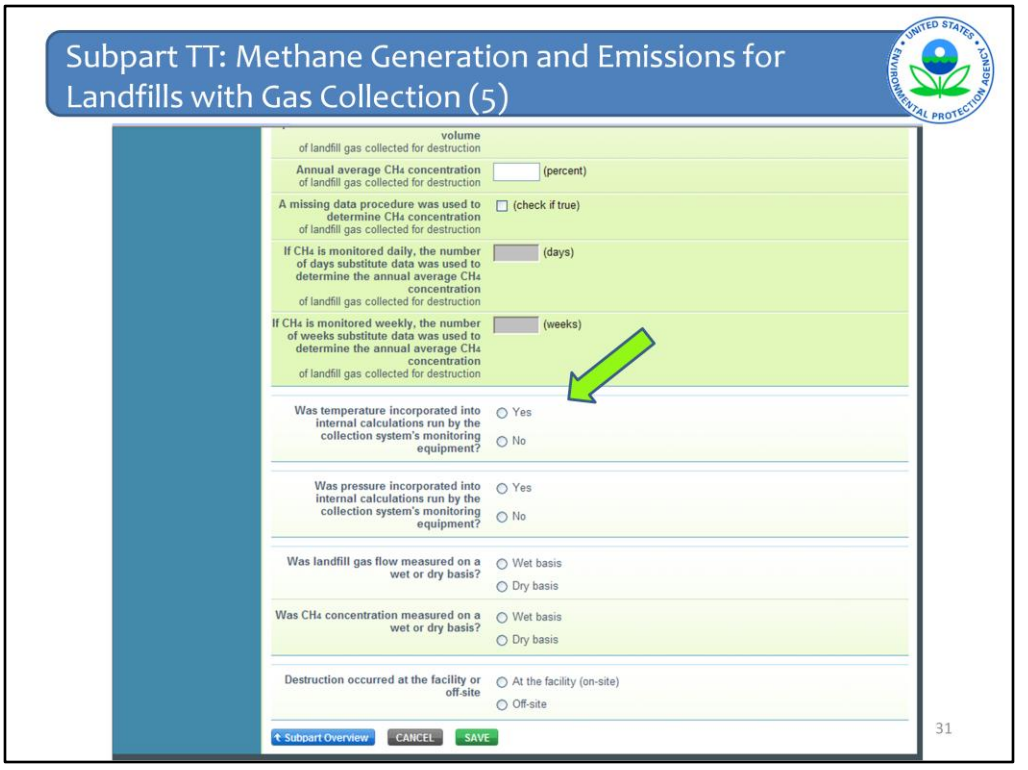
Enter the annual average concentration of CH_4 in the landfill gas collected for destruction (Arrow #3).

Indicate if a missing data procedure was used to determine the concentration of CH_4 in landfill gas collected for destruction (Arrow #4). Information about appropriate procedures for estimating missing data are found in §98.345.

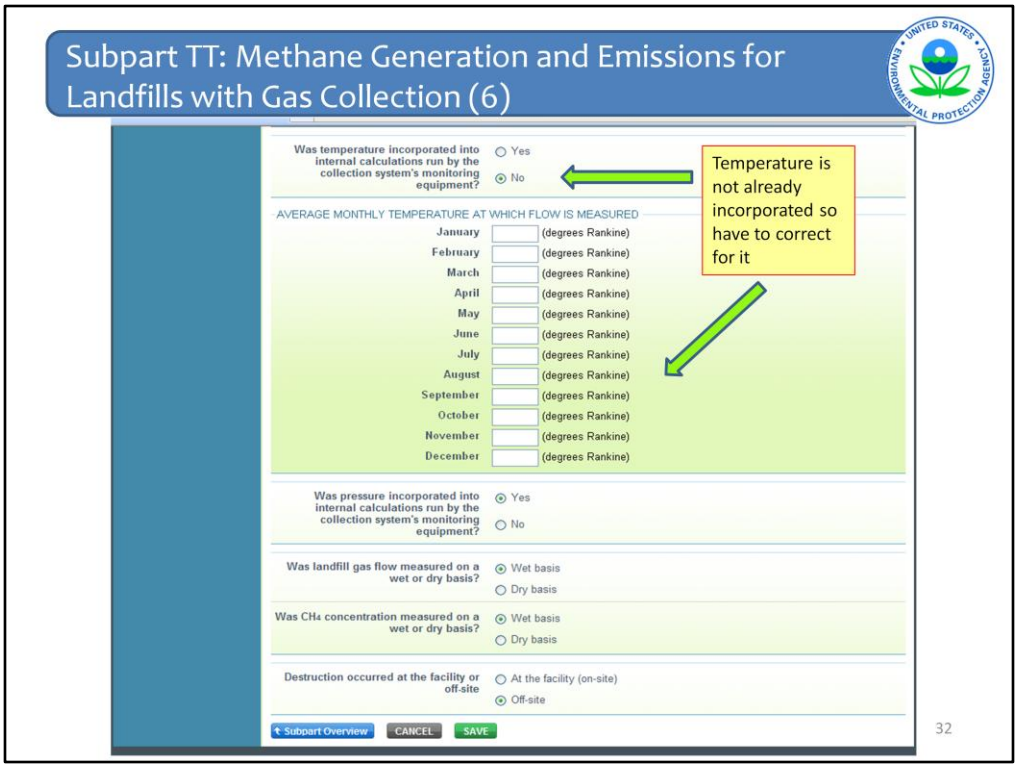
If a missing data procedure was used and the CH_4 concentration is monitored continuously, enter the number of days substitute data were used to determine the annual average CH_4 concentration of landfill gas collected for destruction (Arrow #4a).

If a missing data procedure was used and the CH_4 concentration is monitored weekly, enter the number of weeks substitute data were used to determine the annual average CH_4 concentration of landfill gas collected for destruction (Arrow #4b).

If your landfill has multiple measurement locations, you may enter values for both days and weeks in cases where you monitor CH_4 concentration continuously at some locations and weekly at others.



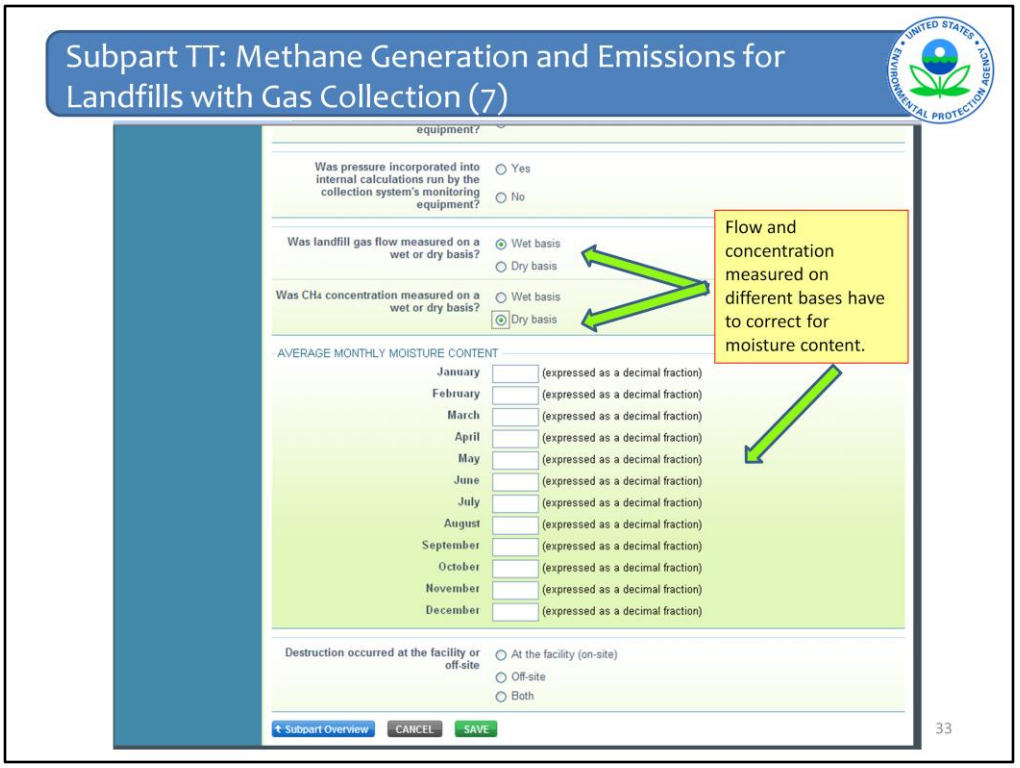
Indicate (yes/no) if temperature was incorporated into internal calculations run by the collection system's monitoring equipment



If temperature was not incorporated into the internal calculations run by the monitoring equipment, enter the average monthly temperature at which landfill gas flow was measured (in degrees Rankine) for each month of the reporting year.

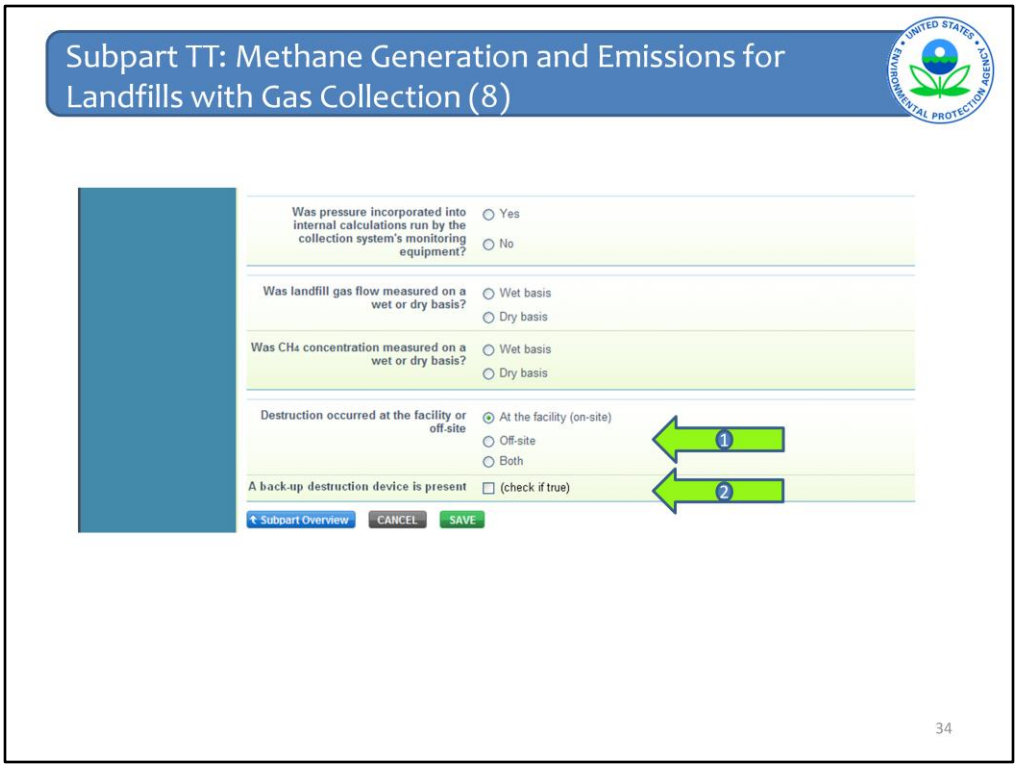
Same thing with pressure. Indicate (yes/no) if pressure was incorporated into internal calculations run by the collection system's monitoring equipment.

If pressure was not incorporated into the internal calculations run by the collection system's monitoring equipment, the month list would pull down and you would enter the average monthly pressure at which the landfill gas flow was measured (in atmospheres) for each month of the reporting year.



Indicate whether landfill gas flow was measured on a wet or a dry basis and whether the CH_4 concentration was measured on a wet or a dry basis.

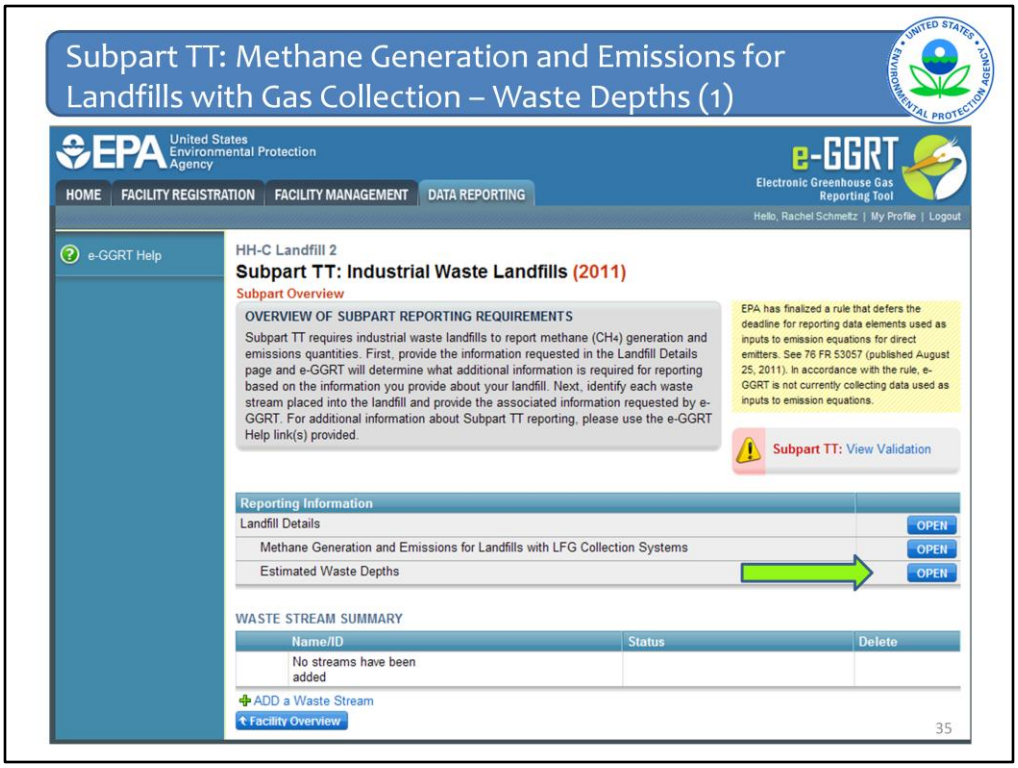
If landfill gas flow was measured on a wet basis and CH_4 concentration was measured on a dry basis, or vice versa, provide the monthly average moisture content (expressed as a decimal fraction) for each month of the reporting year.



Indicate whether landfill gas destruction occurred at the facility (on-site) or off-site (Arrow #1). In the case where some gas is transported off-site and some is consumed on-site, check "both."

If any landfill gas destruction occurred at the facility (you answered either "at the facility" or "both" to the previous question), indicate if a back-up destruction device is present at the facility (Arrow #2).

When you are done answering all of the questions and entering all of the data, click SAVE. You will be brought back to the top of the page, at which time you can check your entries. Then click Subpart Overview to return to the Subpart Overview page.



From the Subpart Overview page, press the OPEN button located opposite “Estimated Waste Depths.”

Subpart TT: Methane Generation and Emissions for Landfills with Gas Collection – Waste Depths (2)

For landfills with gas collection, you must enter the estimated waste depths (in meters) for each of the areas listed on this screen. These are also listed in Table HH-3 of the rule.

When you have entered the information, click SAVE and check your entries. When you have completed your check, click Subpart Overview to return to the Subpart Overview page.

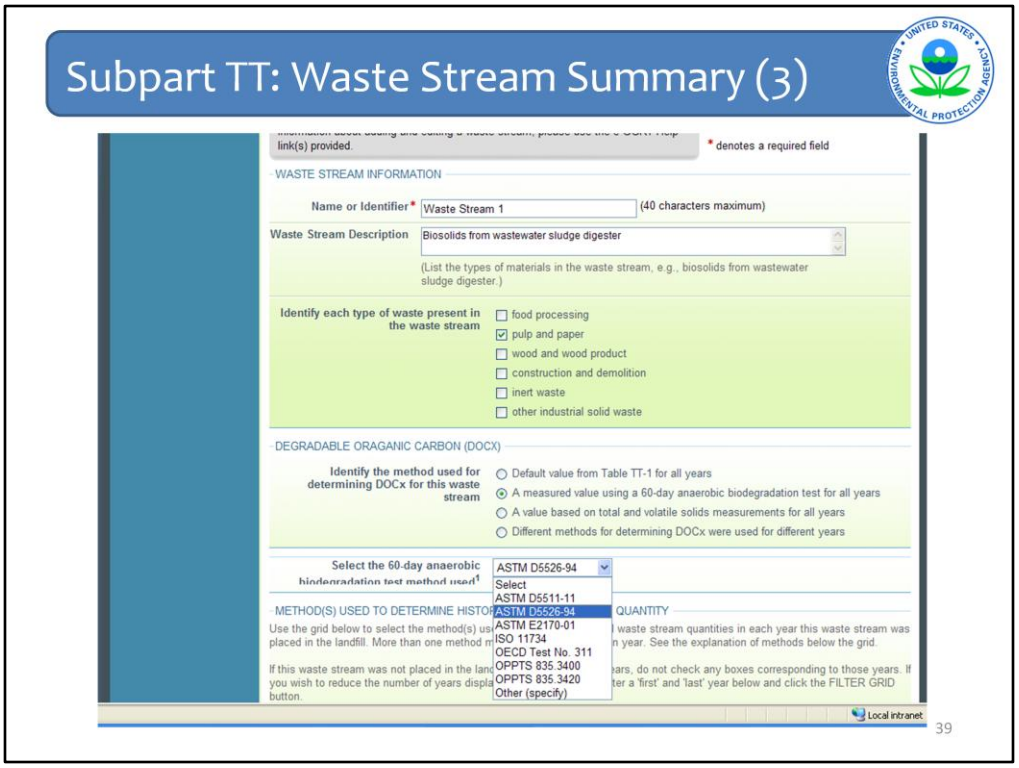
You have entered all of the data about your landfill characteristics and the methane generation and emissions and now you are back on the subpart overview page.

Let's move onto the second part of data entry for industrial waste landfills, which contains information about the waste streams disposed of at the landfill (Arrow #1). You see on this screen that so far no streams have been added (Arrow #2). To add a waste stream, click on ADD a Waste Stream to begin this part (Arrow #3).

For each waste stream disposed of in your industrial landfill, you must provide a name or some sort of unique identifier (Arrow #1) and a description of that waste stream (Arrow #2). The description should be detailed and include a list of the types of materials that are contained in that waste stream. You'll see the example here is for biosolids from a wastewater sludge digester, but it could be something like food waste from a date processing plant, wood processing residuals, boiler or furnace ash from a pulp and paper facility, or foundry waste/sludges.

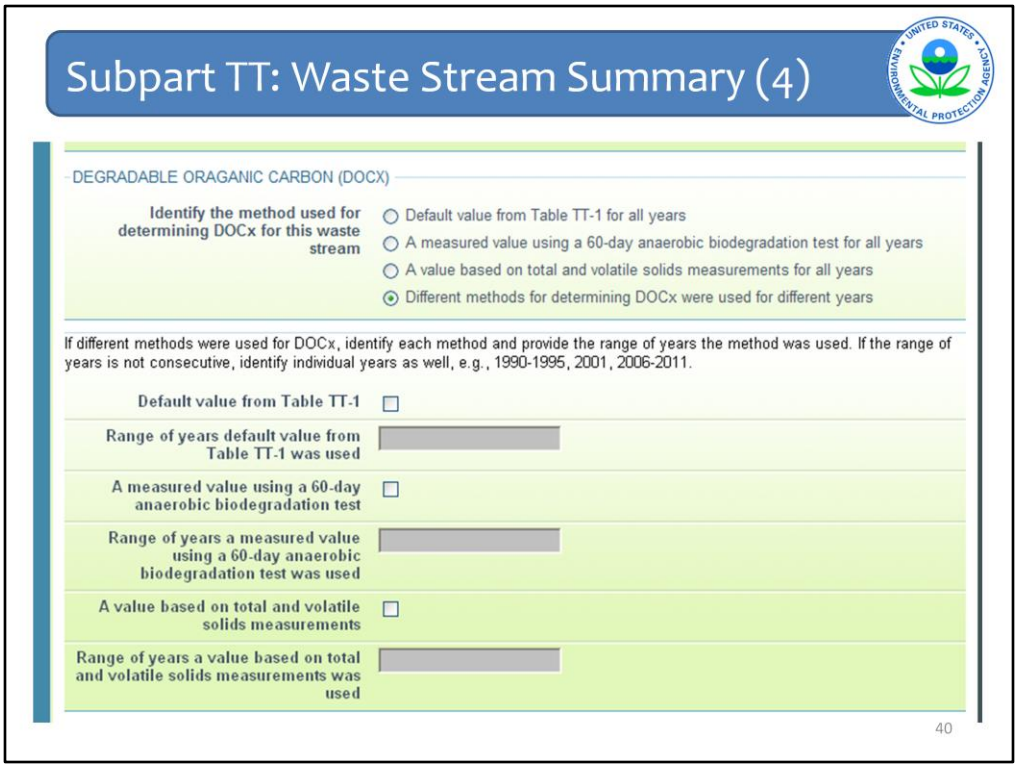
Next you must check the box next to the type of waste present in the waste stream. If you own or operate a landfill located at the facility generating the waste, "waste stream" refers to waste material generated by a specific manufacturing process, so we expect that each waste stream would have only one "waste type" and you would only check one item from this list.

If you own or operate a commercial landfill that received wastes from a number of clients, the "waste stream" refers to wastes generated and/or received from a specific client. As the wastes received from a single client may include wastes from a number of different processes, it may be appropriate to list multiple waste types for a given client's waste stream.



Next you are asked to identify the method used to determine DOCx for this waste stream and you are given a few options. If you used the same method for all years in which the waste stream was placed in the landfill, then check the appropriate method from the first 3 methods listed: default value from Table TT-1, measured using a 60-day anaerobic biodegradation test, or based on total and volatile solids measurements. If you used different methods for different years select the fourth method in this list.

In this case, I used the 60-day anaerobic biodegradation test, and so when I click that it asks me to select which test method was used. Check which method you used. If you used a method other than the ones listed, check Other on the list and fill in the text box that will appear underneath with the method you used.

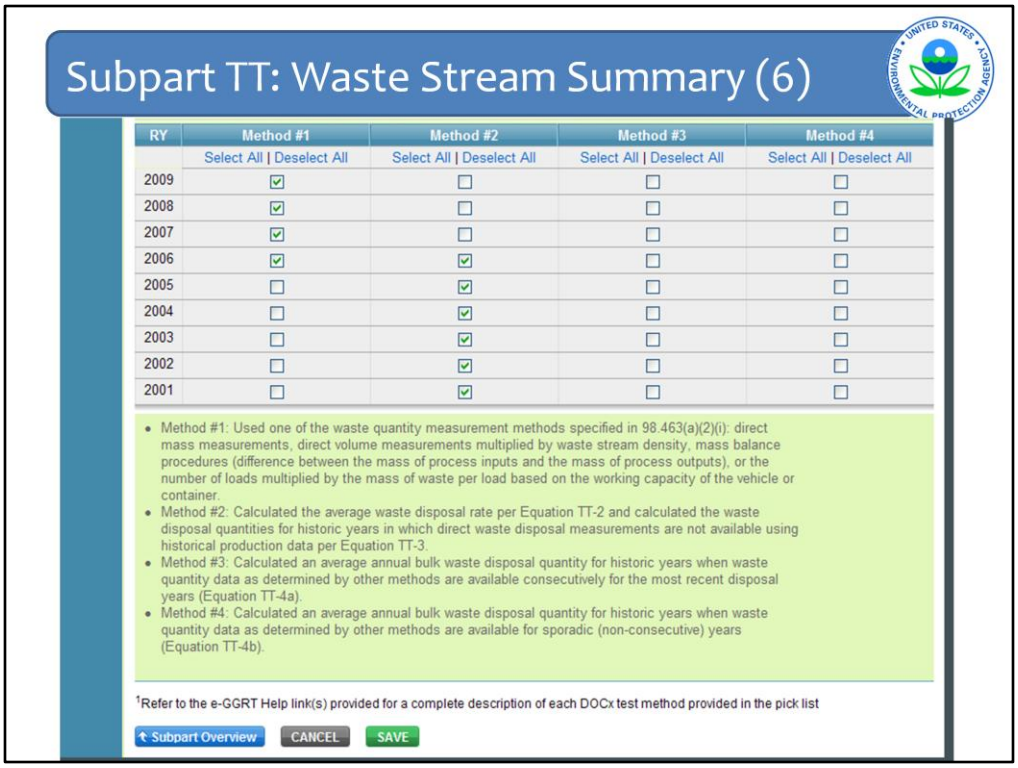


If you chose the fourth method on the list because you used different methods to determine the DOCx of your waste stream for different years, you are then asked which method you used and the range of years in which you used that method. For the range of years, we provided a text box so that you may provide as accurate a response as possible. For example, if the range of years is not consecutive, you can provide individual years as needed. You can see an example of how to do this in the text just above these questions.

For this last part of the Waste Stream Summary page you are asked to identify the methods used to determine the quantity of the waste stream placed in the landfill for all years in which it was placed in your landfill. Per the rule, you must account for all waste streams placed in your landfill since the landfill started accepting waste, or 1960, whichever is later.

To facilitate this part, e-GGRT provides a grid for years 1960 to the current reporting year, the top of which you can see on this slide. Use the grid to identify the years in which the method(s) were used. We'll get into what each Method refers to on the next slide.

In addition to the fact that your landfill may have opened post 1960, we also recognize that a waste stream may not have found its way to your landfill in every year in which the landfill accepted waste. This is especially true for a commercial landfill that accepts waste from several clients. Therefore, you are able to filter the grid somewhat so that you only see the years this particular waste stream was disposed of at your landfill. If you wish to use the filter function, enter the first year the waste stream was disposed in your landfill and the last year it was disposed there (Arrow #1) and click Filter Grid (Arrow #2). For this example, I have filtered the grid to show the years 2001 to 2009.



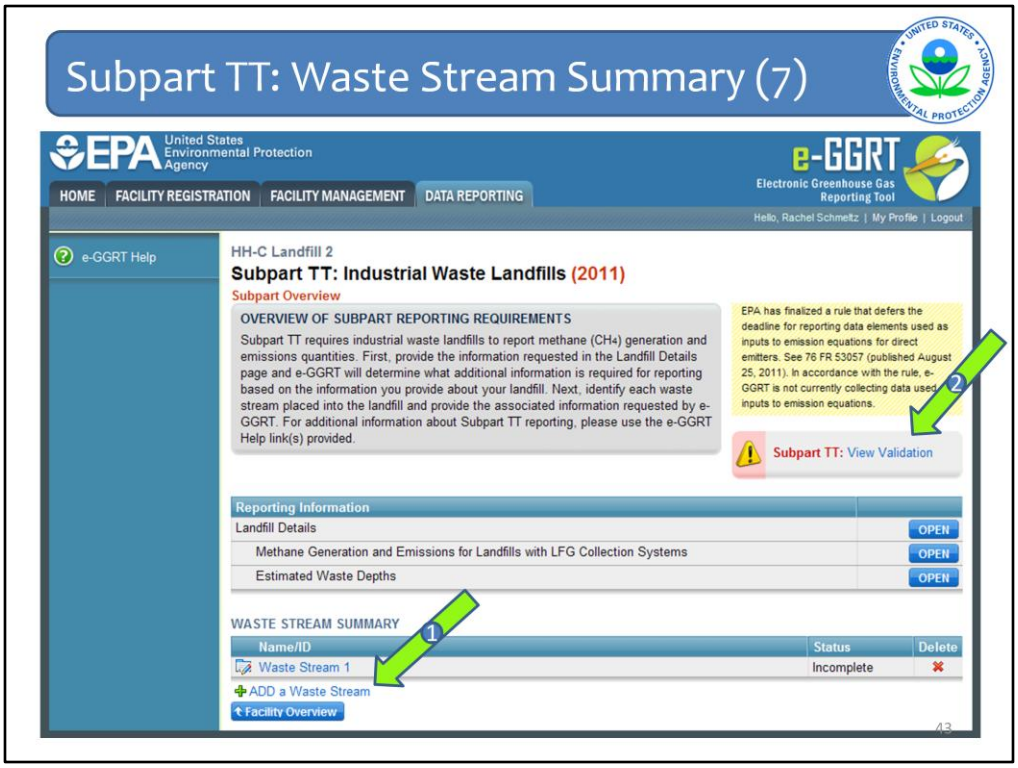
Once you filter for the start and end years you see an abbreviated grid. If there are years in between in which the waste stream was not placed in the landfill, simply leave these rows blank. You may have used more than one method in a year, in which case you should check more than one box in a row.

Below the grid you see an explanation as to what the methods refer to. These methods are also fully defined in the rule language itself.

In this example, this waste stream was disposed of in this landfill from 2001 to 2009, so these are the only years that appear on my grid. And from 2007 to 2009 direct measurements were used to determine waste quantities. In 2006, direct measurements were only available for part of the year and for the rest, waste quantities were calculated by using historical production data and an average waste disposal rate. So two boxes for that year are checked. For the years prior to 2006 only the production data and average waste disposal rate were used to determine waste quantities.

You can also use the “Select All” feature at the top of each column. And if you change your mind, use the “Deselect All” feature as needed.

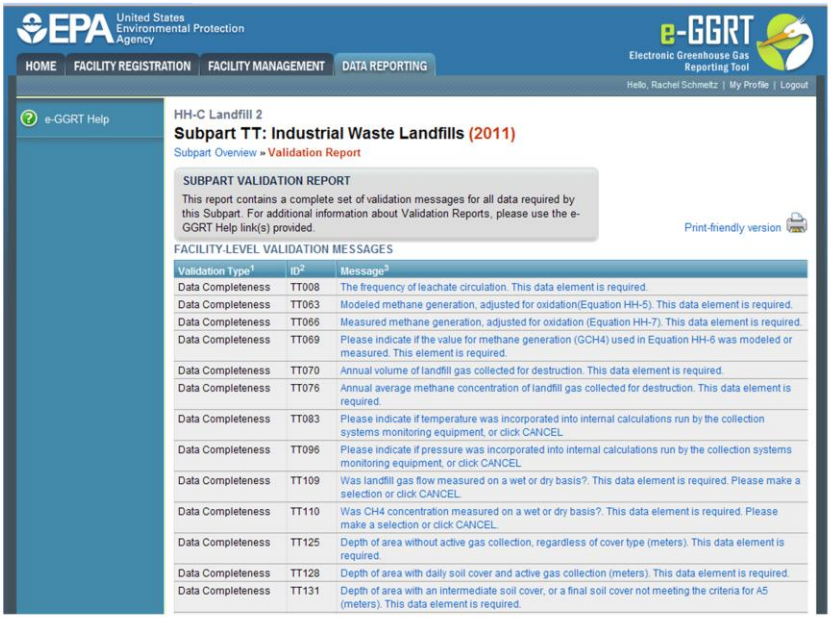
Once you have checked all of the appropriate boxes in the grid, click SAVE at the bottom of the page and review the data you entered to make sure it is correct. Then click Subpart Overview.



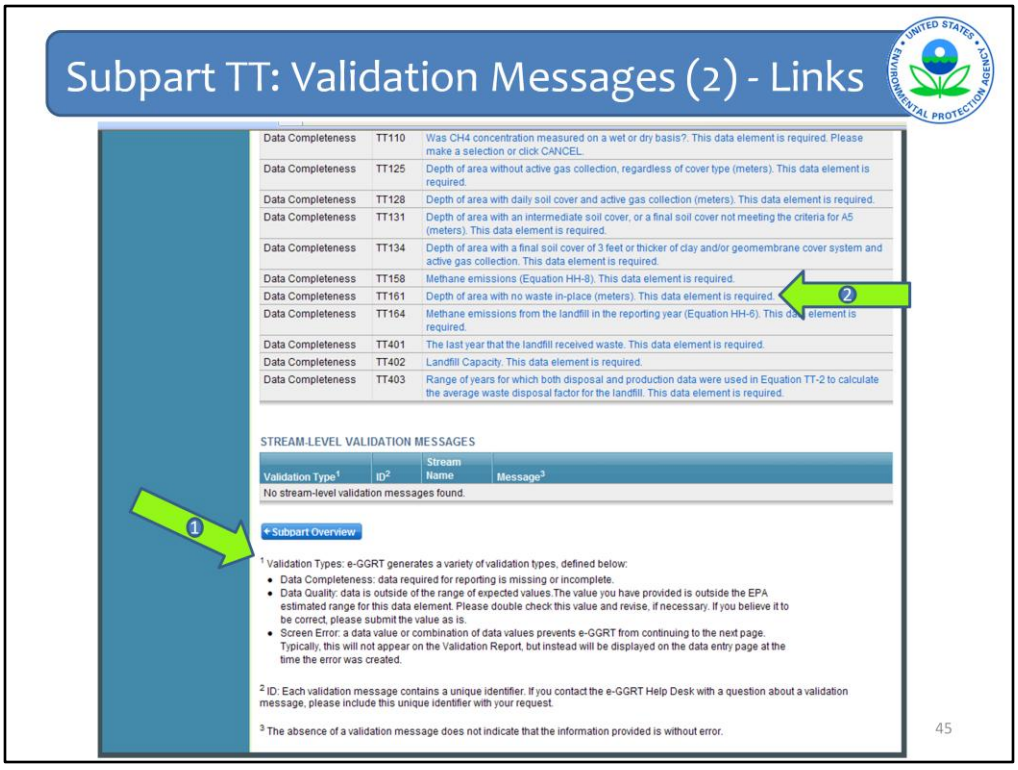
When you get back to the subpart overview page you will see that the status for the waste stream you just completed data entry for is “Complete.” If you need to add more waste streams, do so by clicking ADD Waste Stream (Arrow #1) and follow the steps we just went over.

Notice that there is a yellow triangle next to the View Validation box on this screen. That means that there are validation messages for your report that you need to review. So click on View Validation to see what it says (Arrow #2).

Subpart TT: Validation Messages (1)



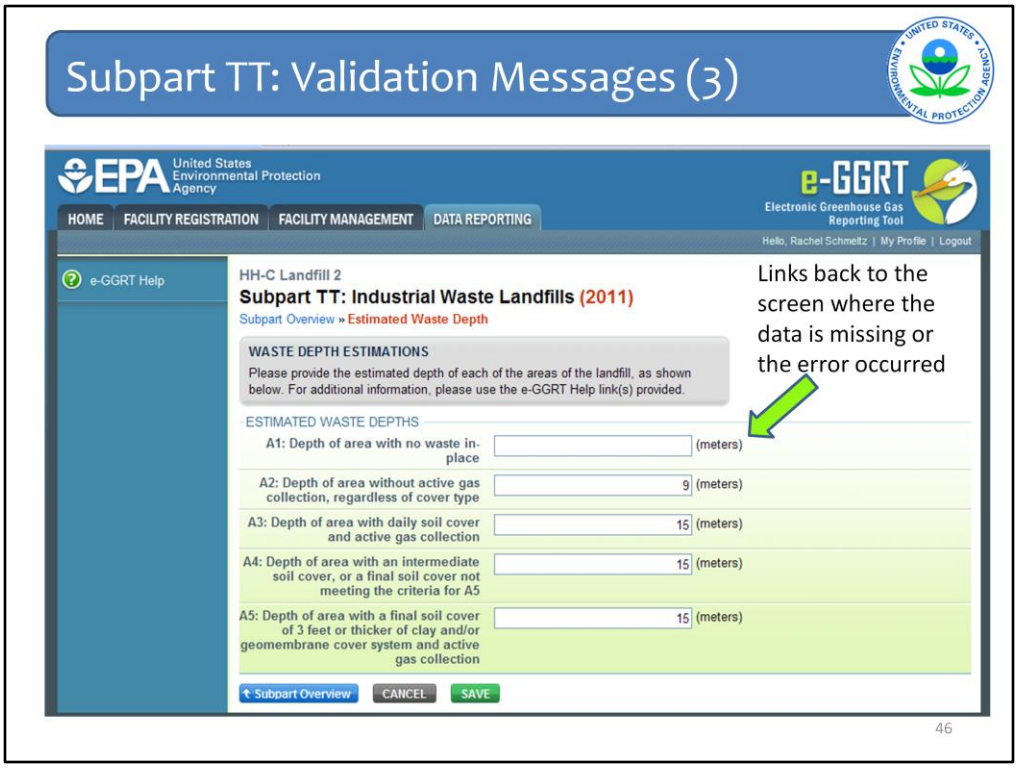
When you click to View Validation, several validation messages may appear depending on how and whether or not you completed the questions. This list represents everything you either did wrong or didn't do throughout the module. You do not have to wait until the end to look at this list. Each time you go back to the Subpart Overview page you can see if you have messages. You can look at what they are and go back and fix them along the way.



The bottom text (Arrow #1) explains the different types of validation messages. For example, Data completeness means you did not complete a data element. Data quality means that the value you entered is out of the expected range for that data element, and so on.

Click on the right column (Arrow #2) for links to the screen where the potential error occurred.

This message told me that I did not enter the depth of the area with no waste-in-place. If you click on it, you will be taken to the page where the issue occurs.

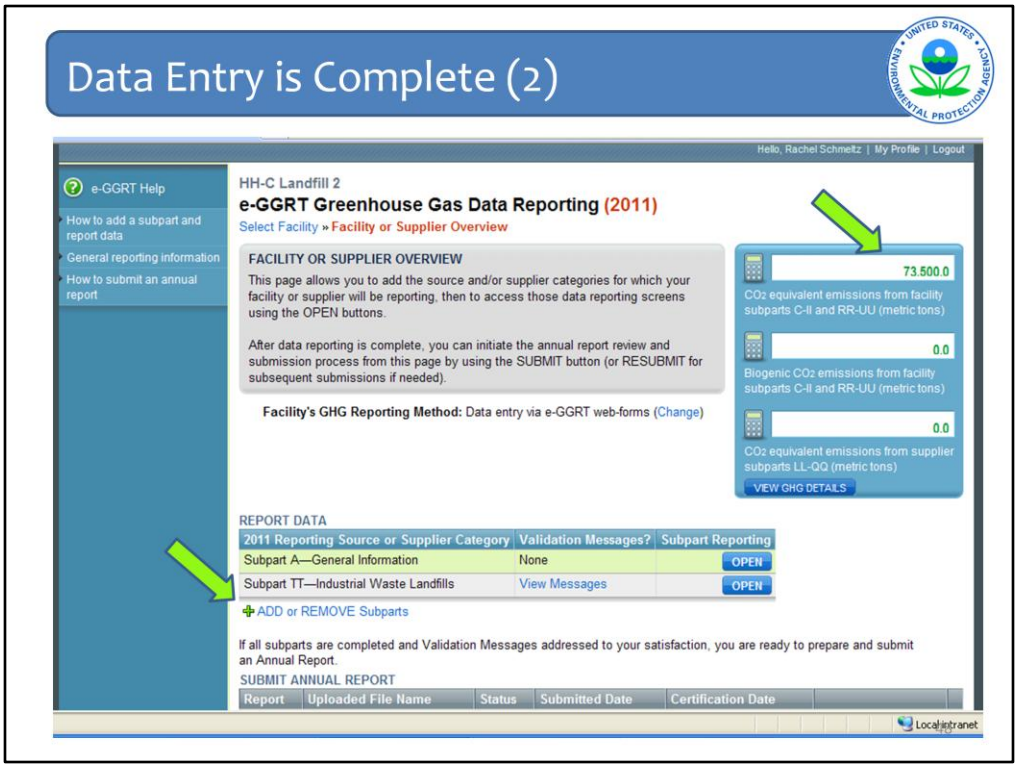


Here is the page with the validation issue. I did not enter the depth of the area with no waste-in-place. I can enter that information now and the message will disappear from my validation list. Keep in mind, that even if the depth is zero, you need to enter the zero and click save.

Go through each validation message to make sure everything is complete and accurate before submitting your report. There are data quality validation messages, where your answer may be accurate but just outside of EPA's anticipated range of values. In this case, you may ignore the validation message (after you have made sure the value you entered is correct) and still proceed with completing your e-GGRT report.

Once you have addressed all of your validation messages, click Subpart Overview at the bottom of the Validation Report page.

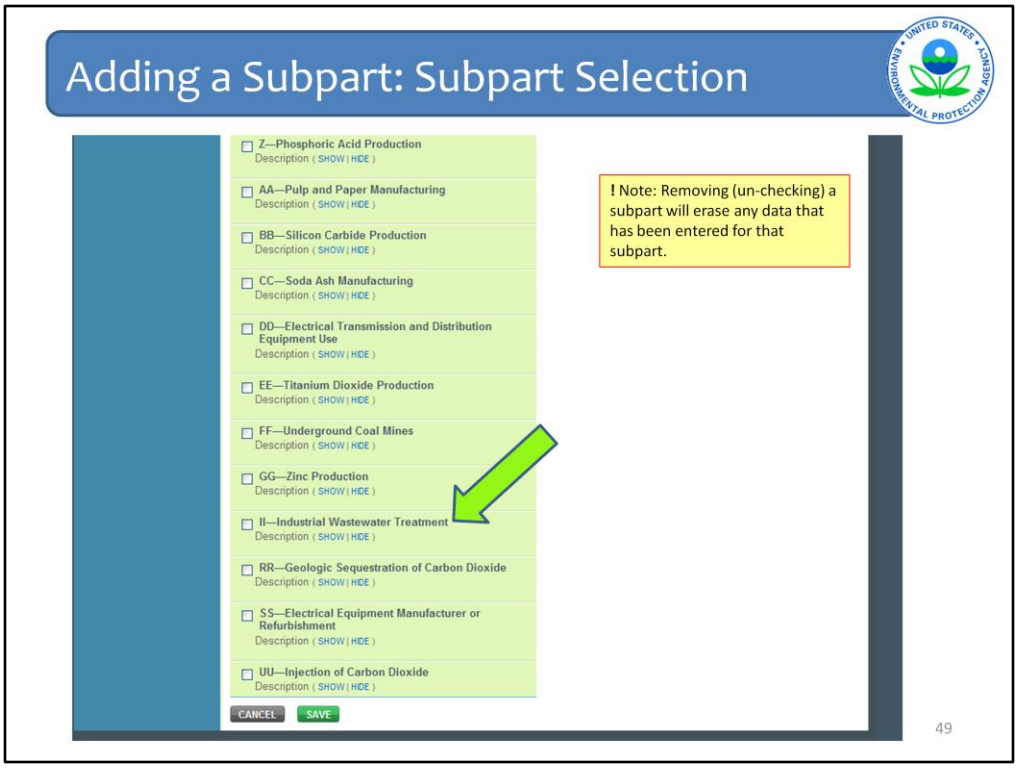
Now you are back at the Subpart Overview page. If you are all done with your report for this subpart, then click Facility Overview. At this point, you should have completed entering all your data and checking and/or correcting all of your validation messages.



Note on the Facility Overview page here, that your CO2 equivalent emissions for subpart TT now show up in the top line of the calculator. So e-GGRT takes your methane emissions multiplies it by the Global Warming Potential of Methane of 21, to arrive at the CO2 equivalent value.

Now that you have completed your data entry for Subpart TT you can either move on to generating and submitting your report or, if there is another subpart that is applicable to your facility, you can proceed to enter information on another subpart. Let's say you also have industrial wastewater treatment at your facility that falls under the applicability requirements of the rule, then you will need to enter data for Subpart II – Industrial Wastewater Treatment. In this case you will go back to your facility overview page and add another subpart.

Just as you did for Subpart TT, click ADD or REMOVE a Subpart just below the Report Data box.



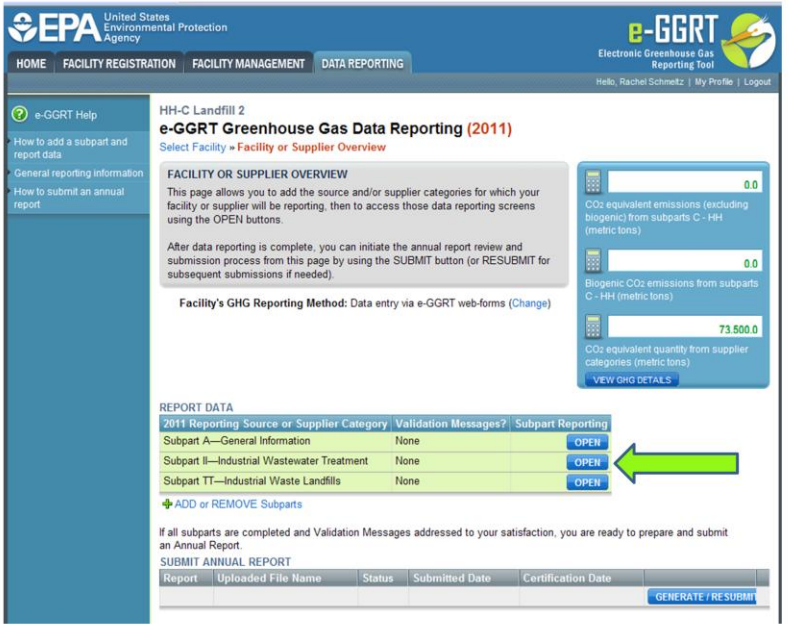
You will see this screen again. Check the box next to Subpart II, which is toward the bottom of the first column on this page, to begin entering data for your industrial wastewater treatment.

Again, note that un-checking a subpart will erase any data that was entered for that subpart.

Remember that after checking the box for your subpart, you will need to click Save in order to add the subpart and return to the Facility Overview page.

As was mentioned before, data entry for this subpart follows the simplified reporting format in e-GGRT so it will be very different from what was just covered for subpart TT.

Opening a Subpart

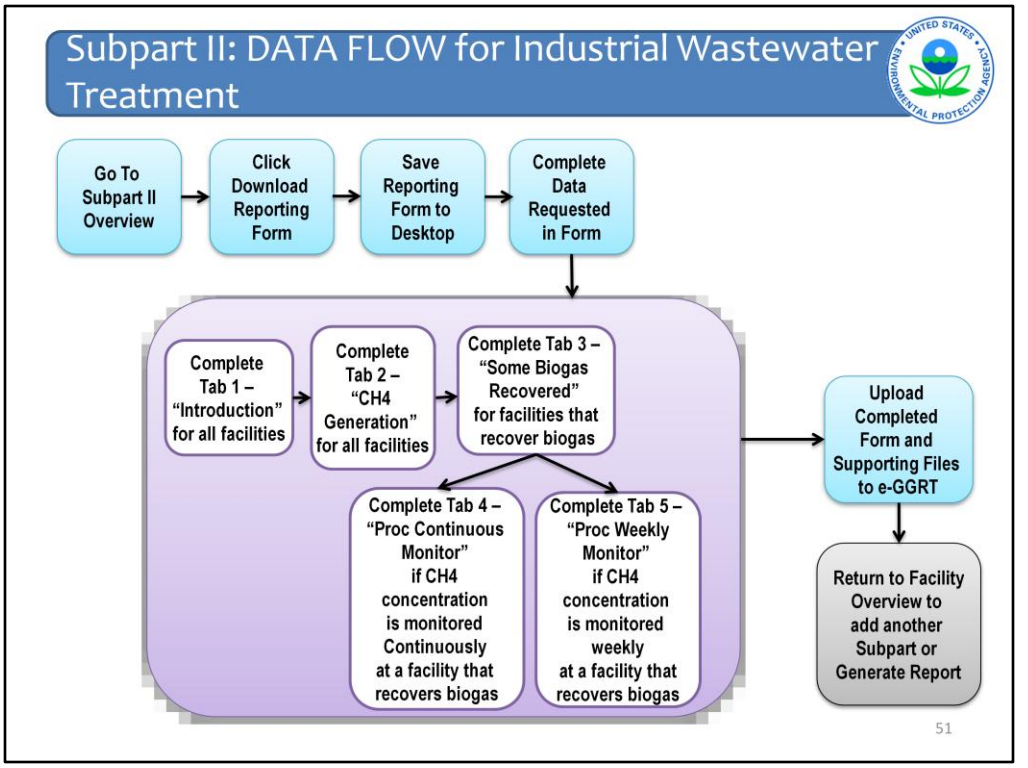


Once you have added a Subpart, you may OPEN that subpart to enter or edit data.

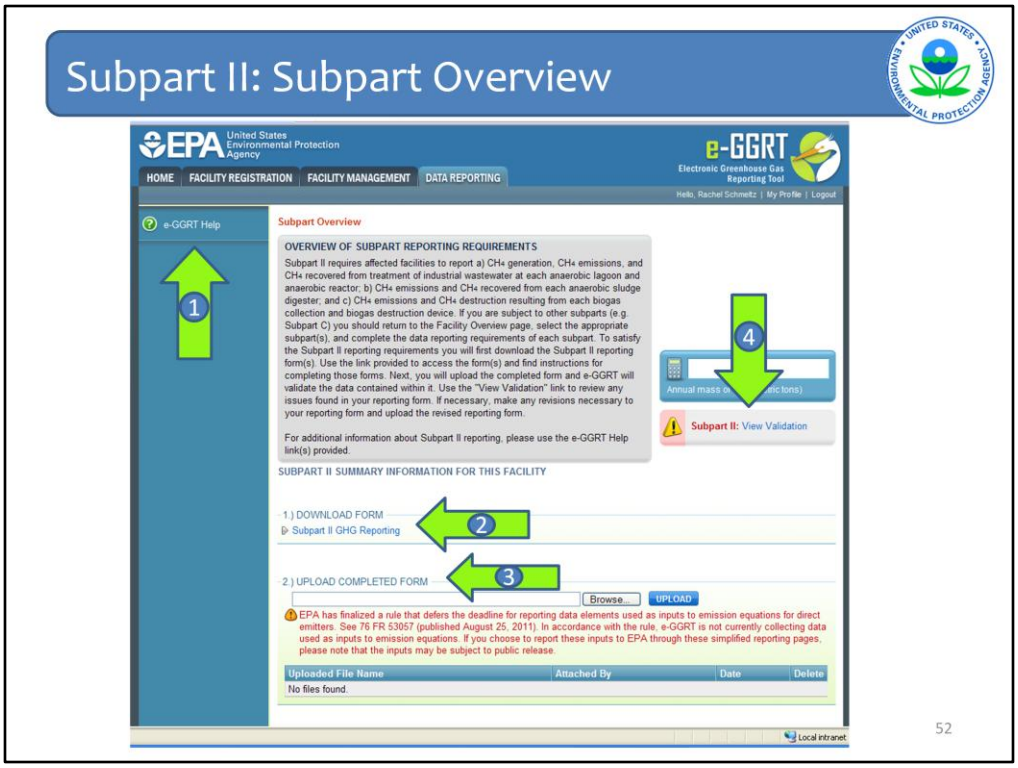
Go to the "Report Data" table in the middle of the Facility Overview page and look for the Subpart that you would like to open.

Here you see that Subpart II has been added to the Source Category list.

Once that subpart appears, click OPEN to begin entering your data for Industrial Wastewater Treatment.



This slide presents the flow of data entry for subpart II. It is a busy chart but the meat of it is in the purple box where a reporter completes the simplified reporting forms. We will walk through each of these steps in detail in the following slides of this webinar.



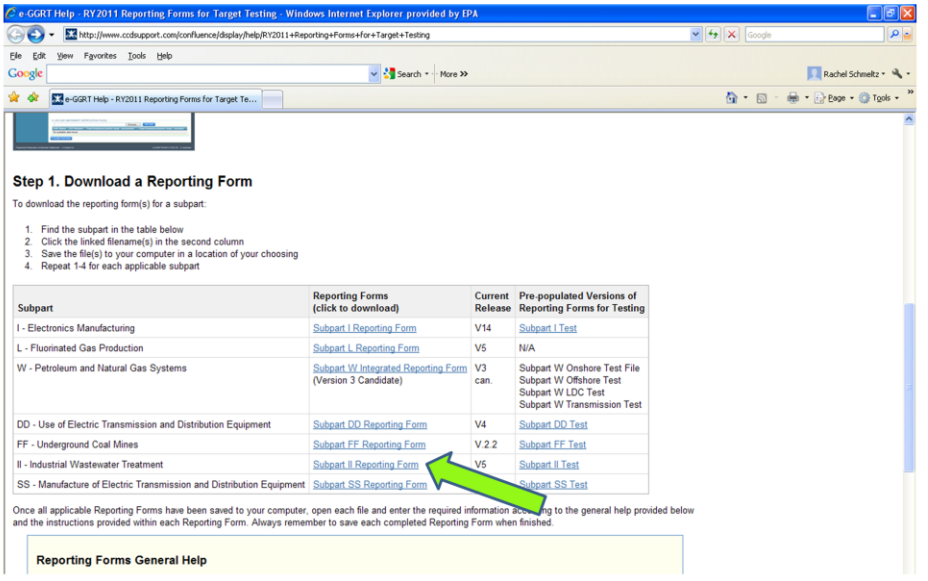
This is the subpart overview page for subpart II. There are several of the same features as the other subpart overview pages but there are also some differences.

Arrow #1 is the link to the e-GGRT Help pages.

The gray boxes at the top of each page give a description of what that page is about. In this case it gives an overview of the subpart reporting requirements and tells you to download the form (Arrow #2), fill it out, and then upload it back to this page (Arrow #3). This file differs from the optional calculation spreadsheets that were discussed before under Subpart TT, because this file does need to be submitted to EPA.

Once you upload the completed form, e-GGRT will validate the data that you entered. Use the "View Validation" link (Arrow #4) to review any issues found in your reporting form. If necessary, make revisions to your form and upload the revised version.

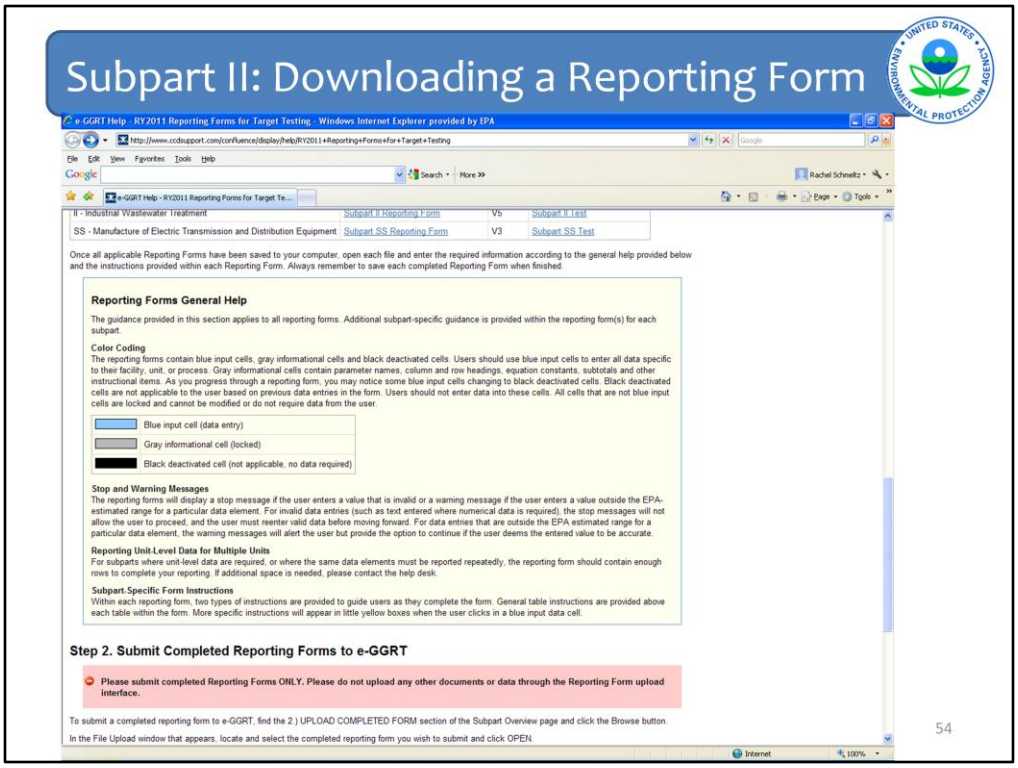
Subpart II: Downloading a Reporting Form



When you click on Download Form, you are taken to a General Help Screen for use by all reporters that have to use the reporting forms.

Follow the list of 4 items under Step 1 shown on this slide. Find the subpart that you want in the table. In this case, we want subpart II for Industrial Wastewater Treatment. Click on the link in the second column. Save the file to your computer in the location where you want to save it. And do this for any other subpart that is applicable to your facility.

The screen that is shown here is specifically for the testing period. When e-GRRT is launched for reporting in August this last column will not be here.

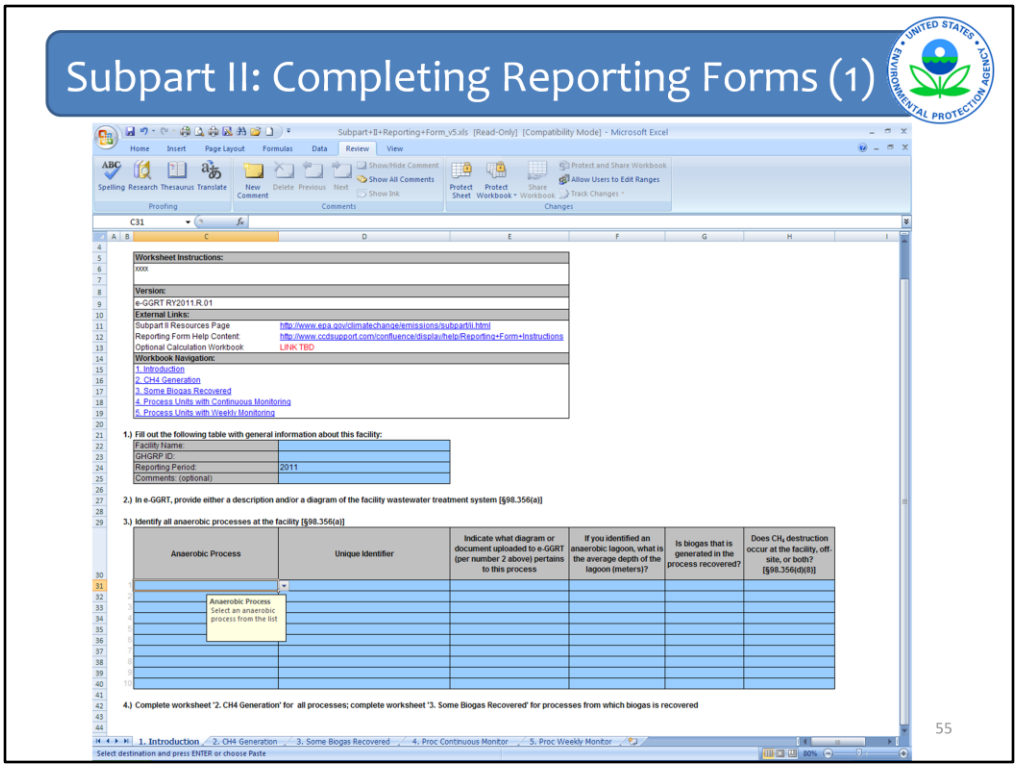


On this same page right below the list of links to the forms is a description of the features in the form that may be helpful to you when completing the forms.

The forms are color coded. Use the blue input cells to enter all data specific to your facility. Gray informational cells contain parameter names, column and row headings, equation constants, subtotals, and other instructional items. As you go through the reporting form, some blue input cells may change to black deactivated cells. Black cells are not applicable to you based on previous data entries in the form. Do not enter data into these cells. All cells that are not blue input cells are locked and cannot be modified or do not require data from you.

As you enter data, you may get a Stop message if you enter a value that is invalid or a Warning message if you enter a value that is outside of EPA's expected range for a data element. For invalid entries, the Stop messages will not let you proceed and you will have to re-enter valid data in order to keep going. For Warning messages, you are alerted to the issue, but you are given the option to continue if you think the entered value is accurate.

In addition to these general instructions, two types of instructions are provided within each reporting form to guide you through each one. General table instructions may be found above each table in each form. More specific instructions will appear in little yellow boxes when you click in a blue input data cell.



Now we will walk through the Subpart II simplified reporting form, so you can see what information needs to be included.

There are 5 tabs in this file. Each facility will need to complete a maximum of 4 of these tabs. Some will only need to complete 2 tabs depending upon whether there is biogas recovery at the facility.

Everyone will need to complete Tab #1 which is the Introduction tab shown on this slide. As you can see these forms are regular Excel files. Unfortunately, there are still some placeholders in this slide, such as the text for the introduction, but the important stuff is all here. When these forms are completed, all of the information will be available.

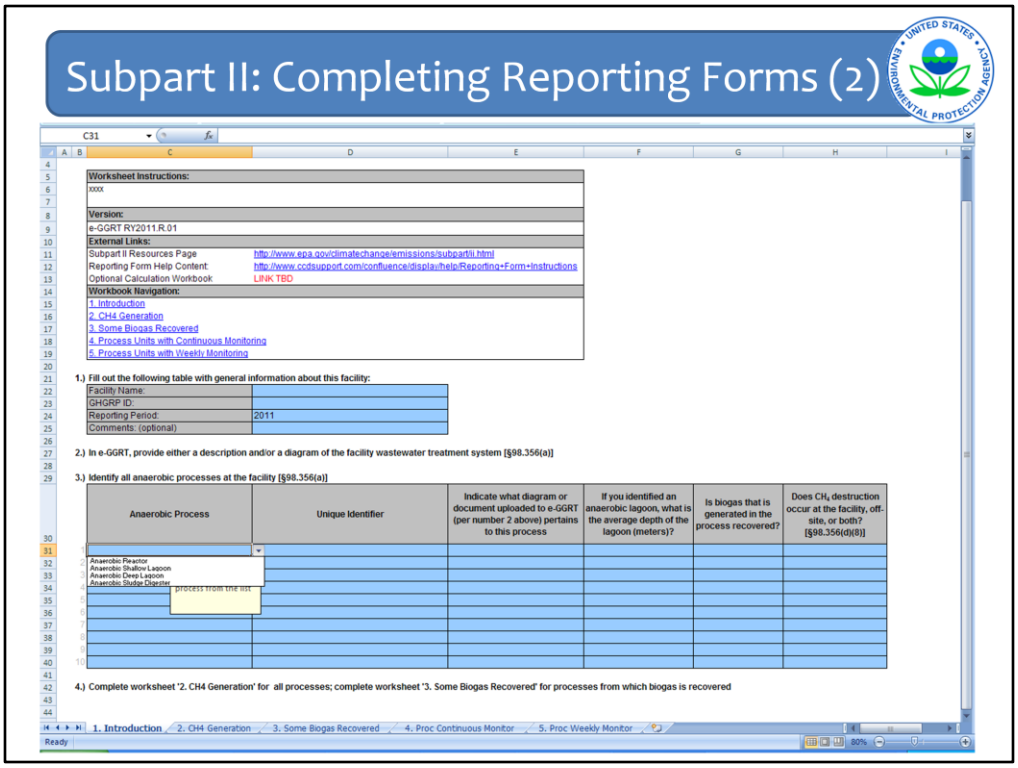
The top section is the same on each tab/spreadsheet. It consists of the introductory language (TBD), some key links to both the help content for subpart II and other resources about the subpart such as the rule language itself. There are also links to the other tabs.

Section 1 is where you enter information about your facility including your facility name, e-GGRT ID, and any comments or details that you think we need to know about. It is important to match the facility name and e-GGRT ID to those given to you when you registered for e-GGRT. Otherwise, you could have trouble uploading the file once it is complete if, for example, the e-GGRT IDs don't match.

Section 2 in this tab asks for the diagram and description of the wastewater treatment system at your facility. You will see in later slides that you will need to attach a separate file with this information to the Subpart Overview page for your facility.

Section 3 is where you enter information about each anaerobic process at your facility. As shown here, when you click on each cell, a little yellow box will appear with an additional brief description of the information you need to enter in that cell.

Subpart II: Completing Reporting Forms (2)



Worksheet Instructions:

xxxx

Version:

e-GGRT RY2011.R.01

External Links:

Subpart II Resources Page	http://www.epa.gov/climatechange/emissions/subpartii.html
Reporting Form Help Content:	http://www.ccdsupport.com/confluence/display/help/Reporting+Form+Instructions
Optional Calculation Workbook:	LINK TBD

Workbook Navigation:

1. Introduction
2. CH4 Generation
3. Some Biogas Recovered
4. Process Units with Continuous Monitoring
5. Process Units with Weekly Monitoring

1.) Fill out the following table with general information about this facility:

Facility Name:	
GHGRP ID:	
Reporting Period:	2011
Comments: (optional)	

2.) In e-GGRT, provide either a description and/or a diagram of the facility wastewater treatment system [§98.356(a)]

3.) Identify all anaerobic processes at the facility [§98.356(a)]

Anaerobic Process	Unique Identifier	Indicate what diagram or document uploaded to e-GGRT (per number 2 above) pertains to this process	If you identified an anaerobic lagoon, what is the average depth of the lagoon (meters)?	Is biogas that is generated in the process recovered?	Does CH_4 destruction occur at the facility, off-site, or both? [§98.356(d)(8)]

Anaerobic Reactor
Anaerobic Shallow Lagoon
Anaerobic Deep Lagoon
Anaerobic Sludge Digester

4.) Complete worksheet '2. CH4 Generation' for all processes; complete worksheet '3. Some Biogas Recovered' for processes from which biogas is recovered

1. Introduction | 2. CH4 Generation | 3. Some Biogas Recovered | 4. Proc Continuous Monitor | 5. Proc Weekly Monitor

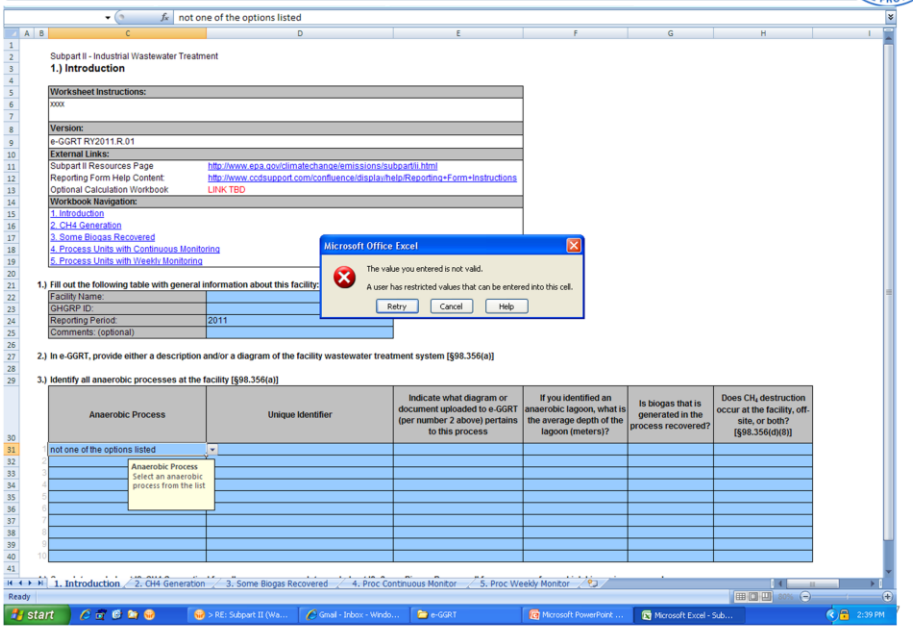
Ready

In this case, there is a pull down list for you to choose the anaerobic process. After you choose the appropriate process, indicate a unique identifier name for this process and the name of the document that you will attach with the description and diagram of your wastewater process.

If this process is an anaerobic lagoon, the next column asks you to input the depth of the lagoon (Column F), whether biogas is recovered (Column G), and whether biogas destruction occurs on-site, off-site, or both (Column H).

All facilities will then proceed to Tab 2 – CH4 generation.

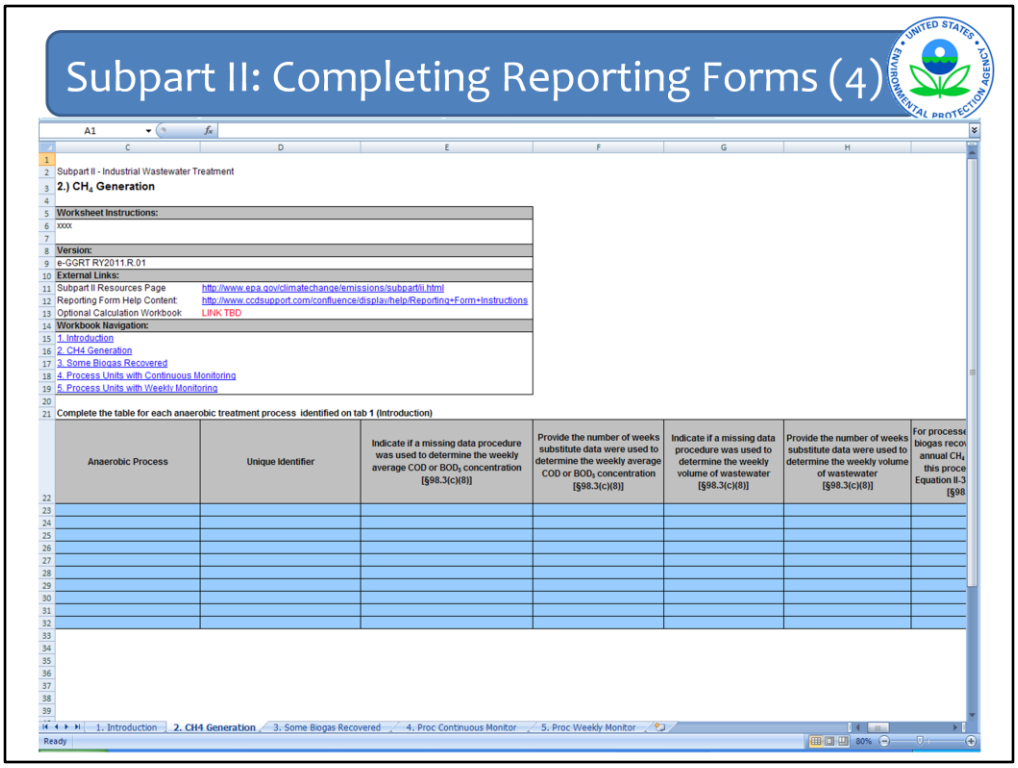
Subpart II: Completing Reporting Forms (3)



Before I move onto the next tab, let's look at what happens when you try to enter some erroneous information. If you try to enter something that is not an option on a pull-down menu, you will get an error message as shown here that says the value you entered is not valid. You must then go back and choose from the pull-down list in order to proceed with your data entry.

Also an important note, as with any data entry, make sure you save the file periodically so that you do not lose any data that you've entered.

Subpart II: Completing Reporting Forms (4)



Subpart II - Industrial Wastewater Treatment

2.) CH_4 Generation

Worksheet Instructions:
xxxx

Version:	
e-GGRT RY2011.R.01	
External Links:	
Subpart II Resources Page	http://www.epa.gov/climatechange/emissions/subpartii.html
Reporting Form Help Content:	http://www.ccdsupport.com/confluence/display/help/Reporting+Form+Instructions
Optional Calculation Workbook:	LINK TBD

Workbook Navigation:

1. Introduction
2. CH4 Generation
3. Some Biogas Recovered
4. Process Units with Continuous Monitoring
5. Process Units with Weekly Monitoring

Complete the table for each anaerobic treatment process identified on tab 1 (Introduction)

Anaerobic Process	Unique Identifier	Indicate if a missing data procedure was used to determine the weekly average COD or BOD_5 concentration [§98.3(c)(8)]	Provide the number of weeks substitute data were used to determine the weekly average COD or BOD_5 concentration [§98.3(c)(8)]	Indicate if a missing data procedure was used to determine the weekly volume of wastewater [§98.3(c)(8)]	Provide the number of weeks substitute data were used to determine the weekly volume of wastewater [§98.3(c)(8)]	For processe biogas reco annual CH_4 this proce Equation II-3 [§98

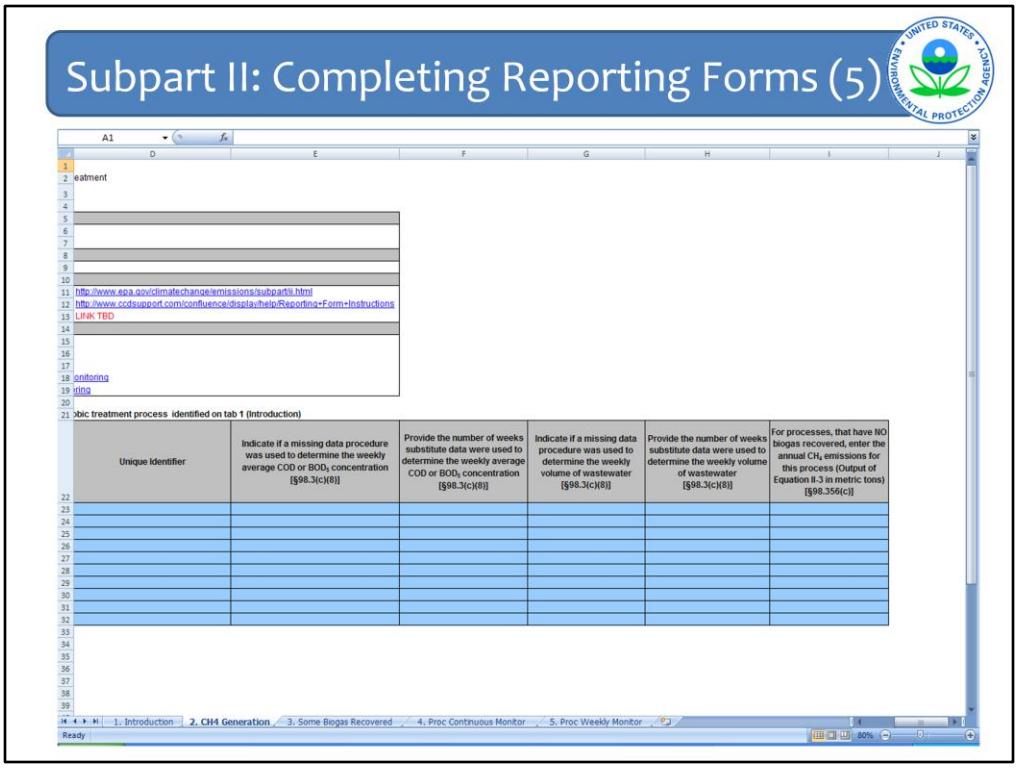
1. Introduction | 2. CH4 Generation | 3. Some Biogas Recovered | 4. Proc Continuous Monitor | 5. Proc Weekly Monitor

Ready

Now onto the second Tab – CH4 Generation.

You must again enter the same anaerobic process from the pull down menu and the same unique identifier. Then enter data on whether you used any missing data procedures when you determined the COD or BOD5 concentration (Column E) or the weekly volume of wastewater of each process (Column G). If you did use any missing data procedures, then you must also indicate how many weeks the procedures were used in Columns F and H, respectively. Note that “missing data” and “substitute data” mean the same things for purposes of this rule. The rule reference for these procedure are provided on the column headers if you need to refer back to them.

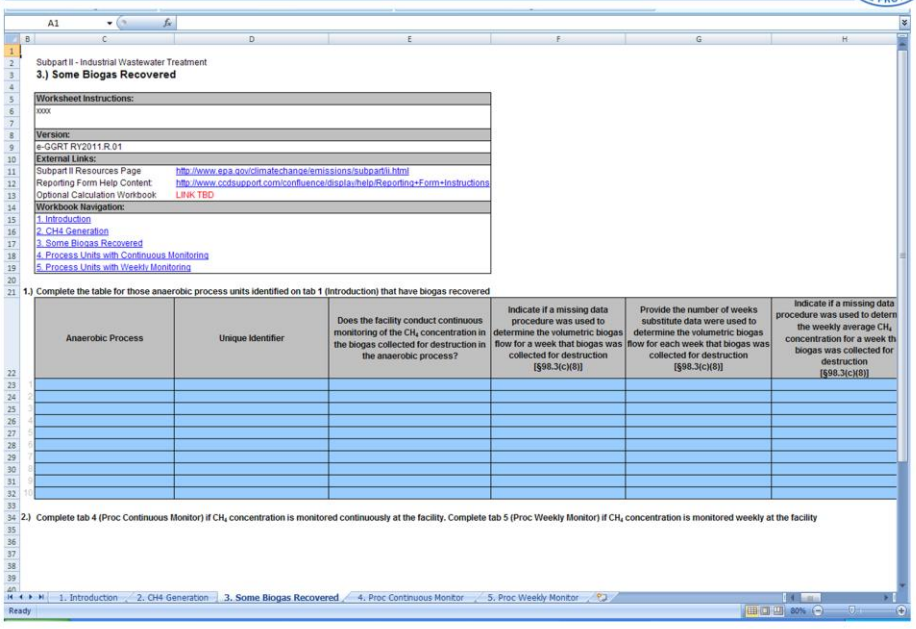
Subpart II: Completing Reporting Forms (5)



The last column on this tab (Column I), which could not fit on the previous slide, asks for the annual CH4 emissions for each process from which biogas is not recovered. This is the output of Equation II-3 of the rule.

Optional Calculation spreadsheets are also available for the subpart II equations, such as Equation II-3 on this slide. The spreadsheets can be accessed via the help links on this page or on the subpart overview page. They follow a similar format to those for TT so we will not cover them in detail here. Again, the spreadsheets are optional and should not be provided to EPA. Instead they should be part of the facility's recordkeeping.

Subpart II: Completing Reporting Forms (6)



Subpart II - Industrial Wastewater Treatment

3.) Some Biogas Recovered

Worksheet Instructions:
xxxx
Version:
e-GGRT RY2011.R.01
External Links:
Subpart II Resources Page: http://www.epa.gov/climatechange/emissions/subpartII.html
Reporting Form Help Content: http://www.ccdsupport.com/confluence/display/help/Reporting+Form+Instructions
Optional Calculation Workbook: LINK TBD
Workbook Navigation:
1. Introduction
2. CH4 Generation
3. Some Biogas Recovered
4. Process Units with Continuous Monitoring
5. Process Units with Weekly Monitoring

1.) Complete the table for those anaerobic process units identified on tab 1 (Introduction) that have biogas recovered

Anaerobic Process	Unique Identifier	Does the facility conduct continuous monitoring of the CH_4 concentration in the biogas collected for destruction in the anaerobic process?	Indicate if a missing data procedure was used to determine the volumetric biogas flow for a week that biogas was collected for destruction [§98.3(c)(8)]	Provide the number of weeks substitute data were used to determine the volumetric biogas flow for each week that biogas was collected for destruction [§98.3(c)(8)]	Indicate if a missing data procedure was used to determ the weekly average CH_4 concentration for a week th biogas was collected for destruction [§98.3(c)(8)]

2.) Complete tab 4 (Proc Continuous Monitor) if CH_4 concentration is monitored continuously at the facility. Complete tab 5 (Proc Weekly Monitor) if CH_4 concentration is monitored weekly at the facility

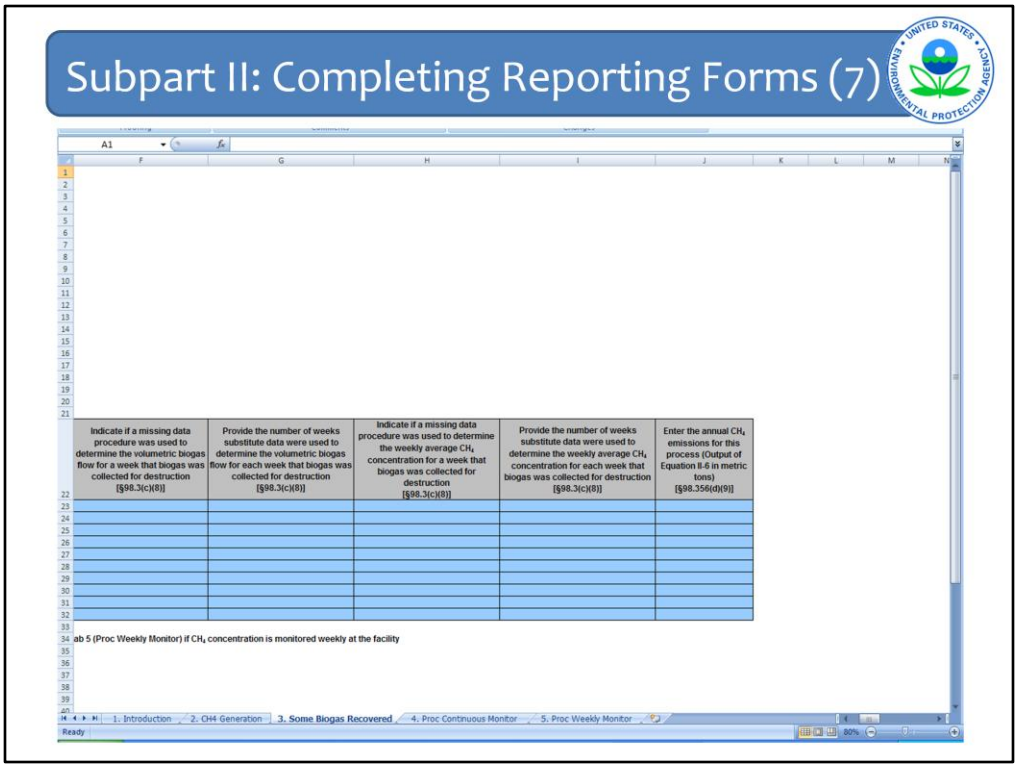
1. Introduction | 2. CH4 Generation | 3. Some Biogas Recovered | 4. Proc Continuous Monitor | 5. Proc Weekly Monitor

Ready

Facilities that have anaerobic processes from which some biogas is recovered must complete Tab #3 – Some Biogas Recovered.

On this tab you must indicate by anaerobic process whether there was continuous monitoring of the CH4 concentration of the biogas recovered (Column E). Your answer to this question determines whether you proceed to Tab 4 or Tab 5 [See 2.) on slide]. But before we get there, you must also indicate if you used any missing data procedures when you monitored for biogas flow (Column F) and if you did, how many times you used missing data (Column G).

Subpart II: Completing Reporting Forms (7)



Indicate if a missing data procedure was used to determine the volumetric biogas flow for a week that biogas was collected for destruction [§98.3(c)(8)]	Provide the number of weeks substitute data were used to determine the volumetric biogas flow for each week that biogas was collected for destruction [§98.3(c)(8)]	Indicate if a missing data procedure was used to determine the weekly average CH_4 concentration for a week that biogas was collected for destruction [§98.3(c)(8)]	Provide the number of weeks substitute data were used to determine the weekly average CH_4 concentration for each week that biogas was collected for destruction [§98.3(c)(8)]	Enter the annual CH_4 emissions for this process (Output of Equation II-6 in metric tons) [§98.356(d)(9)]

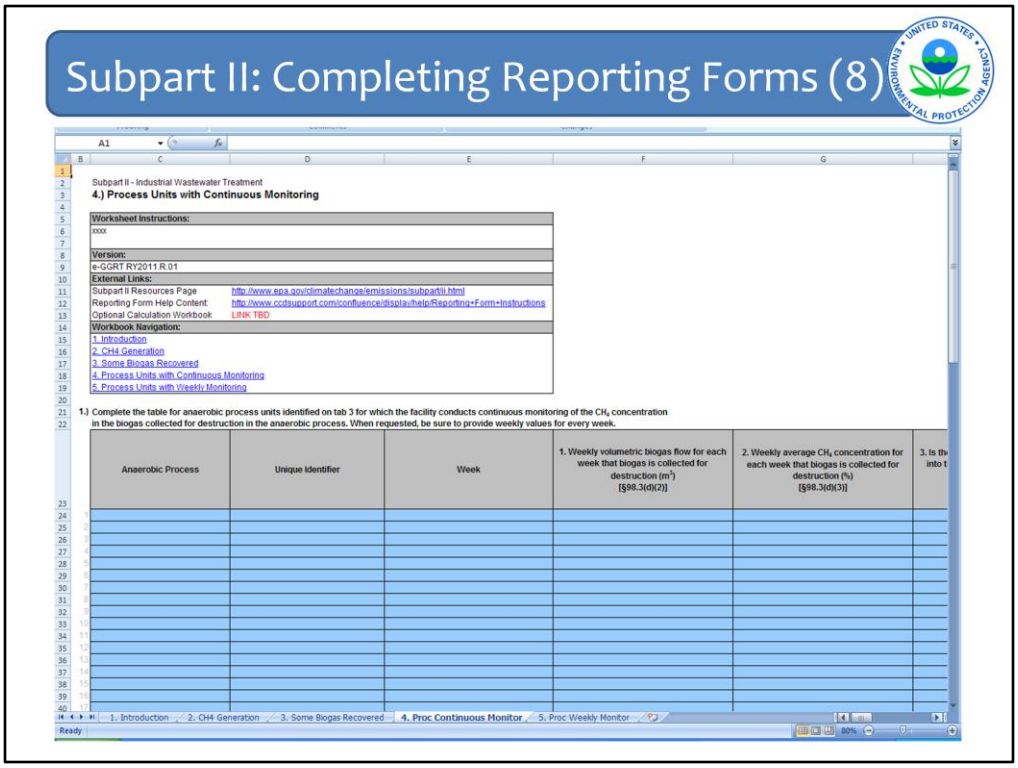
ab 5 (Proc Weekly Monitor) if CH_4 concentration is monitored weekly at the facility

1. Introduction | 2. CH4 Generation | 3. Some Biogas Recovered | 4. Proc Continuous Monitor | 5. Proc Weekly Monitor

Ready

Scrolling to the right on this spreadsheet, you must also indicate if missing data procedures were used for CH4 concentration in the biogas that was recovered (Column H) and if so, how many times missing data was used (Column I). Lastly on this tab, you are asked to input the result of Equation II-6 which is the CH4 emissions for the process in metric tons (Column J).

Subpart II: Completing Reporting Forms (8)



Subpart II - Industrial Wastewater Treatment

4.) Process Units with Continuous Monitoring

Worksheet Instructions:
xxxx
Version:
e-GGRT RY2011.R.01
External Links:
Subpart II Resources Page http://www.epa.gov/climatechange/emissions/subpartII.html
Reporting Form Help Content: http://www.ccdsupport.com/confluence/display/help/Reporting+Form+Instructions
Optional Calculation Workbook: LINK TBD
Workbook Navigation:
1. Introduction
2. CH4 Generation
3. Some Biogas Recovered
4. Process Units with Continuous Monitoring
5. Process Units with Weekly Monitoring

1.) Complete the table for anaerobic process units identified on tab 3 for which the facility conducts continuous monitoring of the CH_4 concentration in the biogas collected for destruction in the anaerobic process. When requested, be sure to provide weekly values for every week.

Anaerobic Process	Unique Identifier	Week	1. Weekly volumetric biogas flow for each week that biogas is collected for destruction (m^3) [§98.3(d)(2)]	2. Weekly average CH_4 concentration for each week that biogas is collected for destruction (%) [§98.3(d)(3)]	3. Is th into t

1. Introduction | 2. CH4 Generation | 3. Some Biogas Recovered | 4. Proc Continuous Monitor | 5. Proc Weekly Monitor

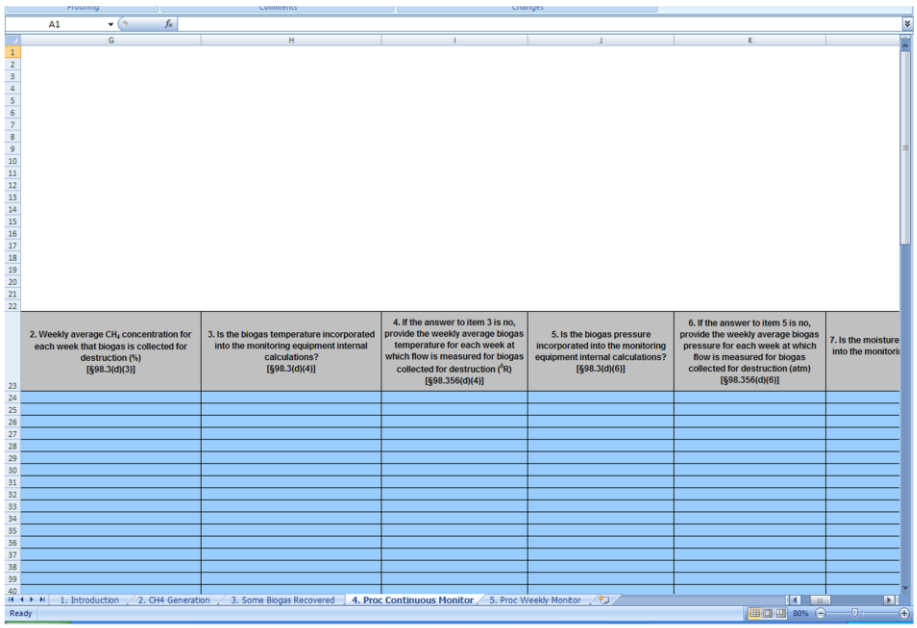
Ready

Processes for which CH4 concentration of the biogas was monitored continuously, must proceed to Tab 4 – Proc Continuous Monitor.

For each anaerobic process and for each week that biogas is collected, you must enter a series of data elements starting with the two you can see on this slide:

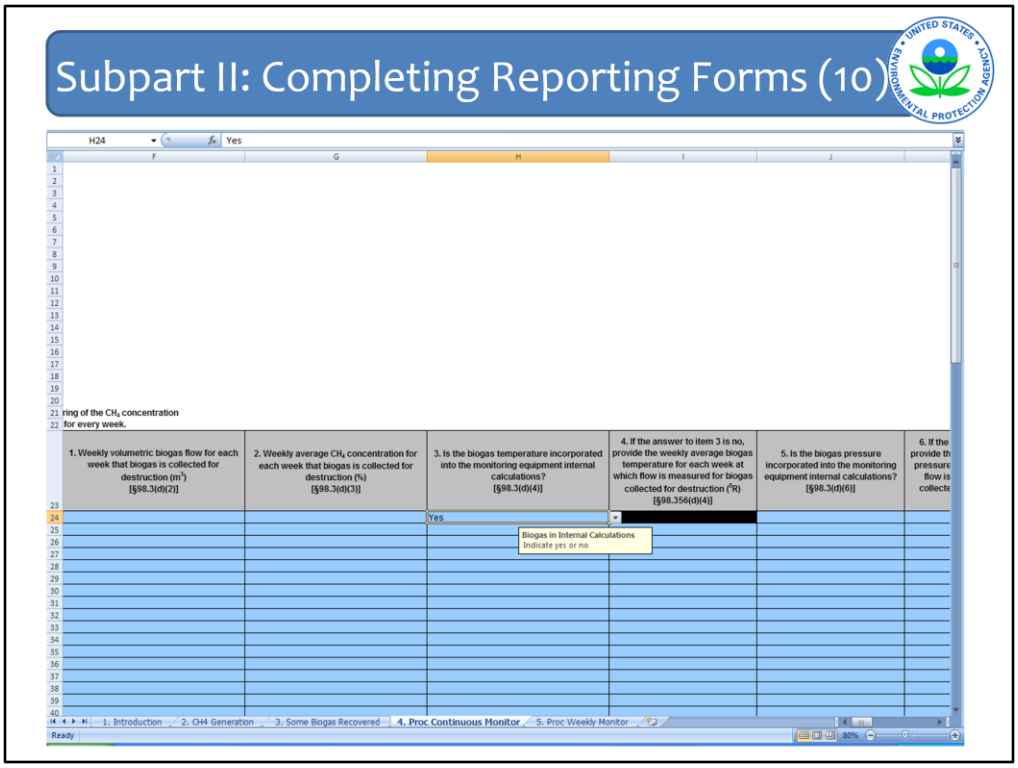
Volumetric biogas flow
Average CH4 concentration

Subpart II: Completing Reporting Forms (9)



Then you must indicate whether temperature is incorporated into the calculations run by the monitoring equipment. If temperature is not incorporated into the calculations then you will need to enter the weekly average temperature of the biogas collected.

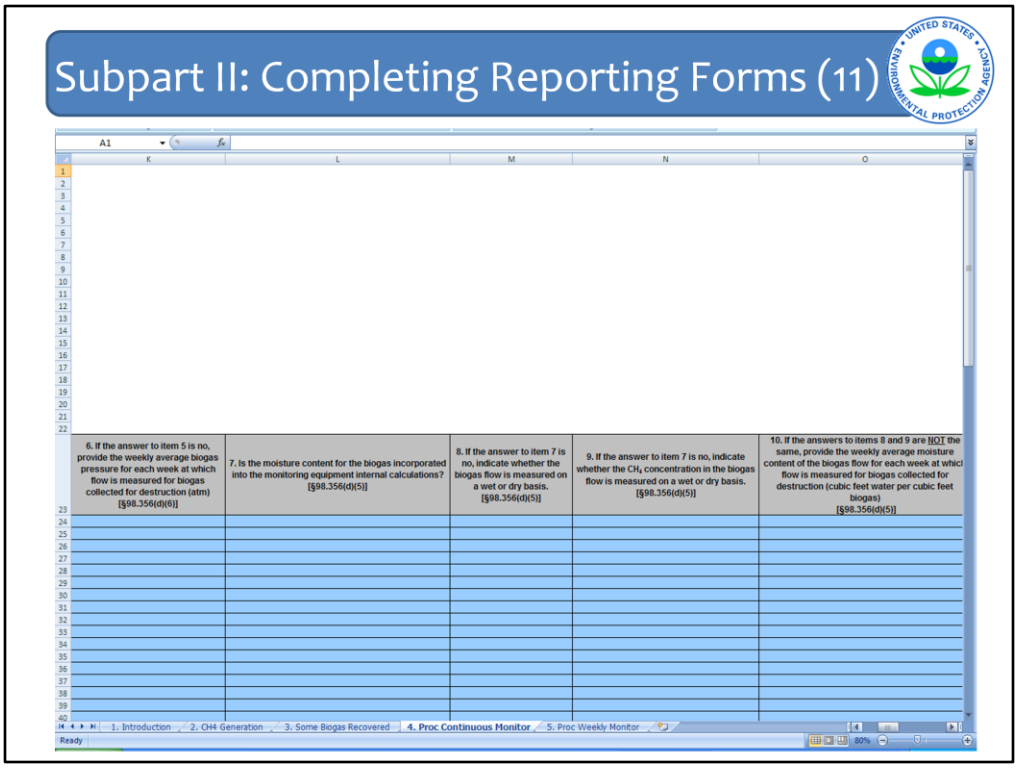
Subpart II: Completing Reporting Forms (10)



If temperature is incorporated into these calculations, then the next column (Column I) will be blacked out, meaning that you do not have to enter anything there.

Next, you do the same thing with pressure. Indicate if biogas pressure is incorporated into the internal calculations run by the monitoring equipment. If it is not incorporated, enter the weekly average pressure. If it is incorporated the next column (Column K) will be blacked out.

Subpart II: Completing Reporting Forms (11)



6. If the answer to item 5 is no, provide the weekly average biogas pressure for each week at which flow is measured for biogas collected for destruction (atm) [§98.356(d)(6)]	7. Is the moisture content for the biogas incorporated into the monitoring equipment internal calculations? [§98.356(d)(5)]	8. If the answer to item 7 is no, indicate whether the biogas flow is measured on a wet or dry basis. [§98.356(d)(5)]	9. If the answer to item 7 is no, indicate whether the CH_4 concentration in the biogas flow is measured on a wet or dry basis. [§98.356(d)(5)]	10. If the answers to items 8 and 9 are NOT the same, provide the weekly average moisture content of the biogas flow for each week at which flow is measured for biogas collected for destruction (cubic feet water per cubic feet biogas) [§98.356(d)(5)]

1. Introduction | 2. CH4 Generation | 3. Some Biogas Recovered | 4. Proc Continuous Monitor | 5. Proc Weekly Monitor

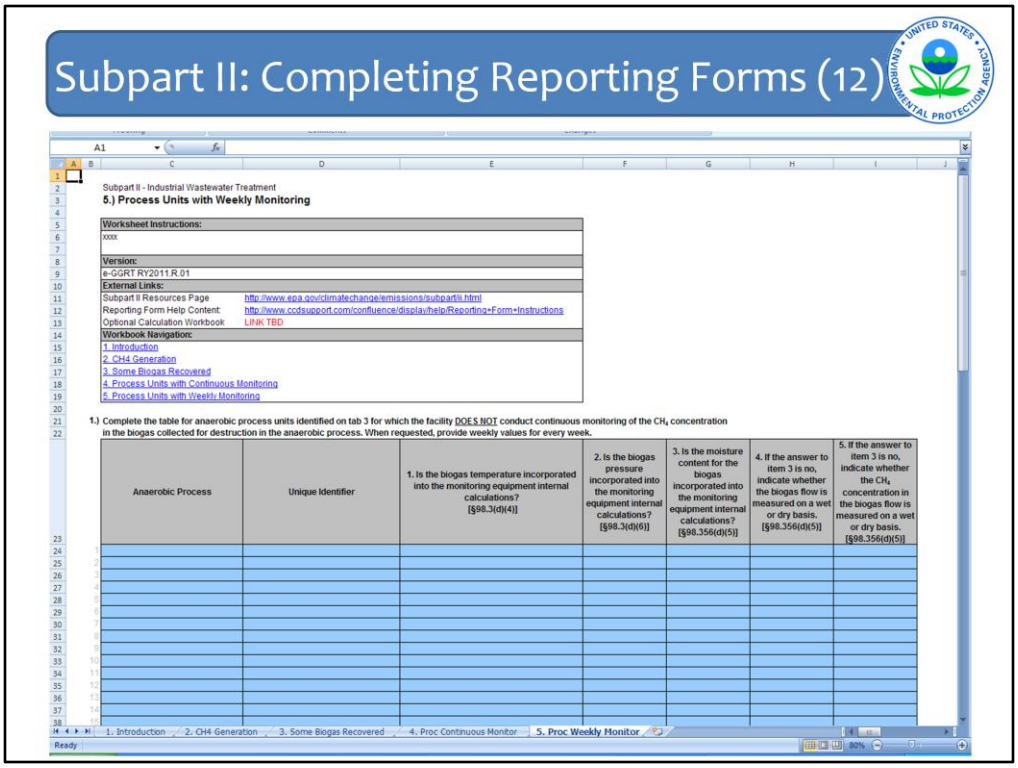
Ready

Next, indicate if moisture content is incorporated into the international calculations run by the monitoring equipment (Column L). This question is a little different from the previous ones. If moisture content is incorporated into the calculations, then the next 3 columns are blacked out and you are done with this tab. But if moisture is not incorporated you must first answer two more questions – whether biogas flow is measured on a wet or dry basis (Column M) and whether CH4 concentration of the biogas is measured on a wet or dry basis (Column N). If they are measured on the same basis, then the last column is blacked out and you are done here. If they are measured on different bases then you must complete the column asking for the weekly average moisture content (Column O).

When you are done with this tab, you are done with simplified reporting for the anaerobic processes that do not monitor CH4 concentration weekly.

For those processes for which CH4 concentration of the biogas is monitored weekly, you must complete Tab 5 – Proc Weekly Monitoring.

Subpart II: Completing Reporting Forms (12)



Subpart II - Industrial Wastewater Treatment

5.) Process Units with Weekly Monitoring

Worksheet Instructions:
xxxx
Version:
e-GGRT RY2011.R.01
External Links:
Subpart II Resources Page — http://www.epa.gov/climatechange/emissions/subpartii.html
Reporting Form Help Content: — http://www.ccdsupport.com/confluence/display/help/Reporting+Form+Instructions
Optional Calculation Workbook — LINK TBD
Workbook Navigation:
1. Introduction
2. CH4 Generation
3. Some Biogas Recovered
4. Process Units with Continuous Monitoring
5. Process Units with Weekly Monitoring

1.) Complete the table for anaerobic process units identified on tab 3 for which the facility DOES NOT conduct continuous monitoring of the CH_4 concentration in the biogas collected for destruction in the anaerobic process. When requested, provide weekly values for every week.

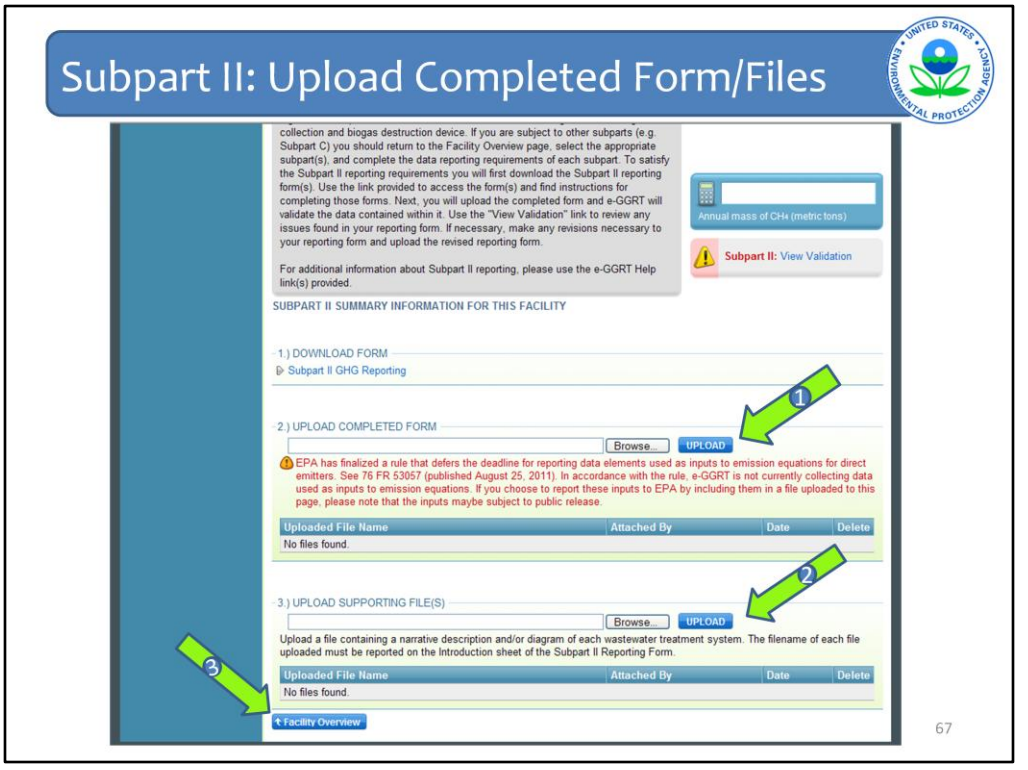
Anaerobic Process	Unique Identifier	1. Is the biogas temperature incorporated into the monitoring equipment internal calculations? [§98.3(d)(4)]	2. Is the biogas pressure incorporated into the monitoring equipment internal calculations? [§98.3(d)(6)]	3. Is the moisture content for the biogas incorporated into the monitoring equipment internal calculations? [§98.356(d)(5)]	4. If the answer to item 3 is no, indicate whether the biogas flow is measured on a wet or dry basis. [§98.356(d)(5)]	5. If the answer to item 3 is no, indicate whether the CH_4 concentration in the biogas flow is measured on a wet or dry basis. [§98.356(d)(5)]

1. Introduction | 2. CH4 Generation | 3. Some Biogas Recovered | 4. Proc Continuous Monitor | 5. Proc Weekly Monitor

Ready

This Tab is significantly simpler. For each anaerobic process you just need to answer the questions about whether temperature, pressure, and moisture content are incorporated into the internal calculations of the monitoring equipment (Columns E, F, and G). And if the answer for moisture content is no, then answer whether biogas flow and CH4 concentration are measured on a wet or dry basis (Columns H and I).

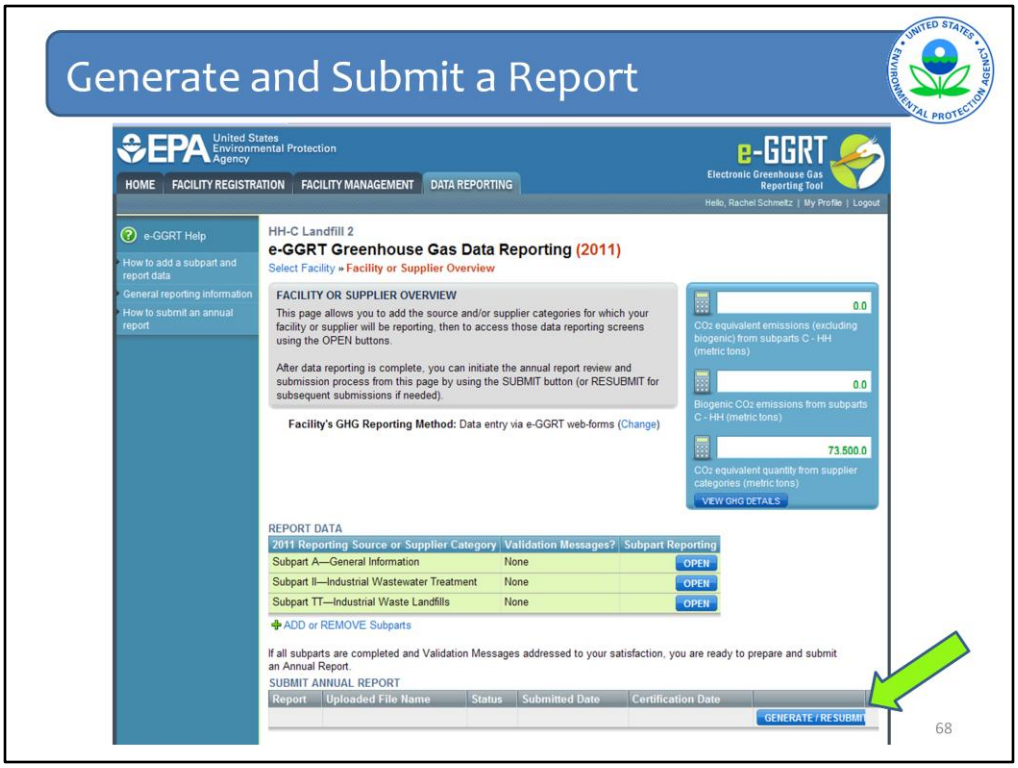
After you have completed this tab, save the file and go back into e-GGRT so that you can upload the form file.



Once you have completed the form for your facility, upload it to e-GGRT on the Subpart Overview page at Arrow #1.

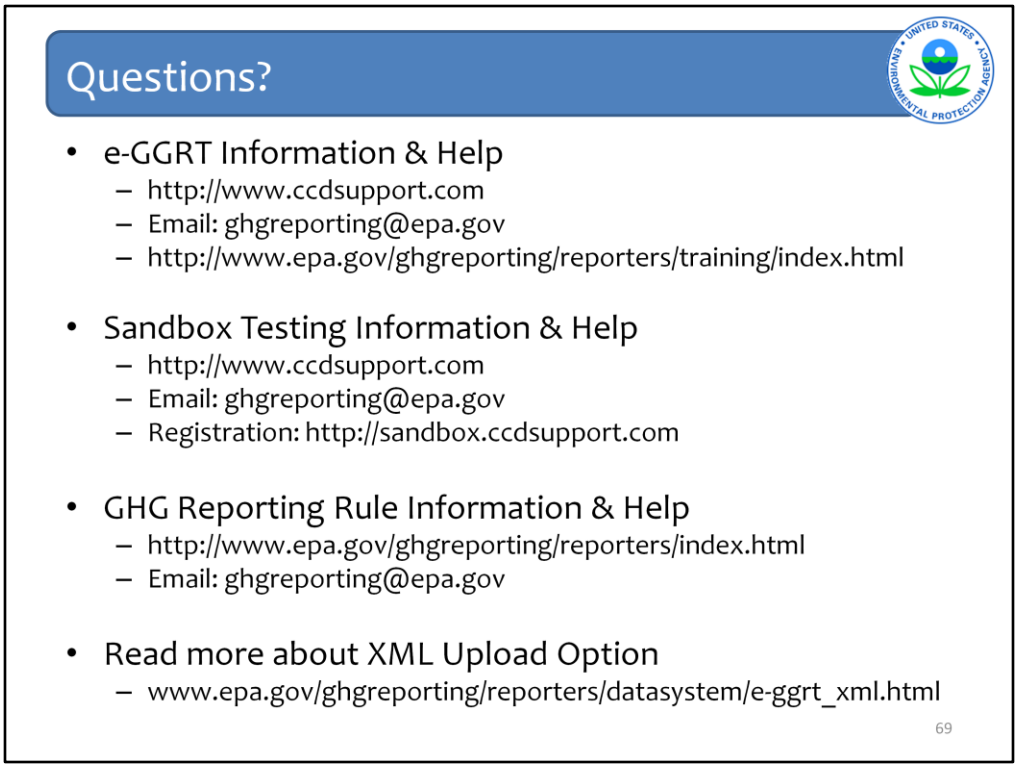
Also at this point, you should upload your supporting files including the description and/or diagram of the facility's wastewater treatment system at Arrow #2. Please note that there is a 1MB limit to the size of this file. Do not upload any calculation spreadsheets you may have used to arrive at your equation results.

When you have uploaded your reporting form and your supporting files, your are essentially done with this subpart and can click Facility Overview (Arrow #3).



And from the Facility Overview Page you can either add another subpart or generate your report and submit it.

One last item to note, even if you have submitted your report, e-GGRT does allow you to resubmit a report. For verification purposes, EPA will look at the latest report submitted. However, the rule also says (in §98.3(h)) that if you discover an error in your report, you must submit a revised annual GHG report within 45 days of discovering that error.



This last slide contains important websites where you may find an enormous amount of information about the GHG Reporting Program, on e-GGRT, as well as the XML option for uploading GHG emissions reports. Also listed is a key email address for questions or help requests for e-GGRT or for technical questions about the GHG Reporting Rule itself.

Lastly, there is the website for information and email for questions on the sandbox testing and the site where you can register for sandbox testing if you have not already done so.

This concludes the e-GGRT module for subpart II and TT.