



**e-GGRT Training Webinar on
Reporting GHG Data for Subpart HH**

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

Updated 2/17/12

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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 subpart HH only. For more general information on reporting via e-GGRT, please go to the Training and Testing Opportunities Tab on our website and download the e-GGRT Overview Webinar. Webinars for other subparts may be found there as well.

Adding Subparts




United States Environmental Protection Agency



Electronic Greenhouse Gas Reporting Tool

HOME FACILITY REGISTRATION FACILITY MANAGEMENT DATA REPORTING
Help, Kong Chiu | My Profile | Logout

Chlu Industries (2010)
e-GGRT Greenhouse Gas Data Reporting
[Select Facility](#) • [Facility or Supplier Overview](#)

FACILITY OR SUPPLIER OVERVIEW

This page allows you to add the source and/or supplier categories for which your facility or supplier will be reporting, then to access those data reporting screens using the OPEN buttons.

After data reporting is complete, you can initiate the annual report review and submission process from this page by using the SUBMIT button (or RESUBMIT for subsequent submissions if needed).

The Annual Report has already been prepared. Any changes you make to report data will not be reflected in that version. After making changes to report data you must choose GENERATE/RESUBMIT below, then click GENERATE REPORT for those changes to be included in an updated version of the Annual Report.

CO₂ equivalent emissions (excluding biogenic) from source categories (metric tons) **33,200**

Biogenic CO₂ emissions from source categories (metric tons) **0**

CO₂ equivalent quantity from supplier categories (metric tons) **0**

[VIEW GHG DETAILS](#)

REPORT DATA

2010 Reporting Source or Supplier Category	Validation Messages?	Subpart Reporting
Subpart A—General Information	None	OPEN
Subpart C—General Stationary Fuel Combustion Sources	Not Available	OPEN
Subpart G—Ammonia Manufacturing	Not Available	OPEN

[ADD or REMOVE Subparts](#)

If all subparts are completed and Validation Messages addressed to your satisfaction, you are ready to prepare and submit an Annual Report.

SUBMIT ANNUAL REPORT


Report	Status	Sign Date	Submitted Date	View
2010 Annual Report v1	Submitted, Pending Certification and Signature	03/04/2011 1:05 PM		GENERATE / SUBMIT

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In order to begin reporting for Subpart HH – Municipal Solid Waste Landfills, 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 Subpart: Subpart Selection



REPORTING SOURCE AND SUPPLIER CATEGORIES
Please check the relevant reporting source and/or supplier categories (or "subparts" for this facility. Information about each, any reporting thresholds, and other information can be found in e-GGRT Help and the links to the left.

! Note: Removing (un-checking) a subpart will erase any data that has been entered for that subpart.

<p>SOURCE CATEGORIES</p> <ul style="list-style-type: none"> <input type="checkbox"/> D—Electricity Generation Description (SHOW HIDE) <input type="checkbox"/> E—Adipic Acid Production Description (SHOW HIDE) <input type="checkbox"/> F—Aluminum Production Description (SHOW HIDE) <input type="checkbox"/> G—Ammonia Manufacturing Description (SHOW HIDE) <input type="checkbox"/> H—Cement Production Description (SHOW HIDE) <input type="checkbox"/> K—Ferroalloy Production Description (SHOW HIDE) <input type="checkbox"/> N—Glass Production Description (SHOW HIDE) <input type="checkbox"/> O—HCFC-22 Production and HFC-23 Destruction Description (SHOW HIDE) <input type="checkbox"/> P—Hydrogen Production Description (SHOW HIDE) 	<p>GENERAL STAT</p> <ul style="list-style-type: none"> <input type="checkbox"/> C—General Stationary Fuel Combustion (Standard Reporting) Description (SHOW HIDE) <input type="checkbox"/> C—General Stationary Fuel Combustion (Abbreviated Reporting) Description (SHOW HIDE) <p>LANDFILLS</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> HH—Municipal Solid Waste Landfills Description (SHOW HIDE) <p>SUPPLIER CATEGORIES</p> <ul style="list-style-type: none"> <input type="checkbox"/> LL—Suppliers of Coal-based Liquid Fuels Description (SHOW HIDE) <input type="checkbox"/> MM—Suppliers of Petroleum Products Description (SHOW HIDE) <input type="checkbox"/> NN—Suppliers of Natural Gas and Natural Gas Liquids Description (SHOW HIDE) <input type="checkbox"/> OO—Suppliers of Industrial Greenhouse Gases Description (SHOW HIDE)
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You will be brought to a list of all subparts in the GHG Reporting Program. Check the box next to Subpart HH.

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

After checking the box for Subpart HH, you will need to scroll to the bottom of the page and click Save in order to add the subpart and return to the Facility Overview page.

Opening Subpart

EPA United States Environmental Protection Agency

e-GGRT Electronic Greenhouse Gas Reporting Tool

HOME FACILITY REGISTRATION FACILITY MANAGEMENT DATA REPORTING

Hi Rachel Schmelz | My Profile | Logout

Schmelz Landfill Management (2010)

e-GGRT Greenhouse Gas Data Reporting

Select Facility » Facility or Supplier Overview

FACILITY OR SUPPLIER OVERVIEW

This page allows you to add the source and/or supplier categories for which your facility or supplier will be reporting, then to access those data reporting screens using the OPEN buttons.

After data reporting is complete, you can initiate the annual report review and submission process from this page by using the SUBMIT button (or RESUBMIT for subsequent submissions if needed).

Facility's GHG Reporting Method: Data upload via XML (Change)

CO₂ equivalent emissions (excluding biogenic) from source categories (metric tons)

Biogenic CO₂ emissions from source categories (metric tons)

CO₂ equivalent quantity from supplier categories (metric tons)

VIEW GHG DETAILS

REPORT DATA

2010 Reporting Source or Supplier Category	Validation Messages?	Subpart Reporting
Subpart A—General Information	None	OPEN
Subpart HH—Landfills	Not Available	OPEN

ADD or REMOVE Subparts

If all subparts are completed and Validation Messages addressed to your satisfaction, you are ready to prepare and submit an Annual Report.

SUBMIT ANNUAL REPORT

Report	Uploaded File Name	Status	Sign Date	Submitted Date	View
2010 Annual Report v1		Not Generated			GENERATE / SUBMIT

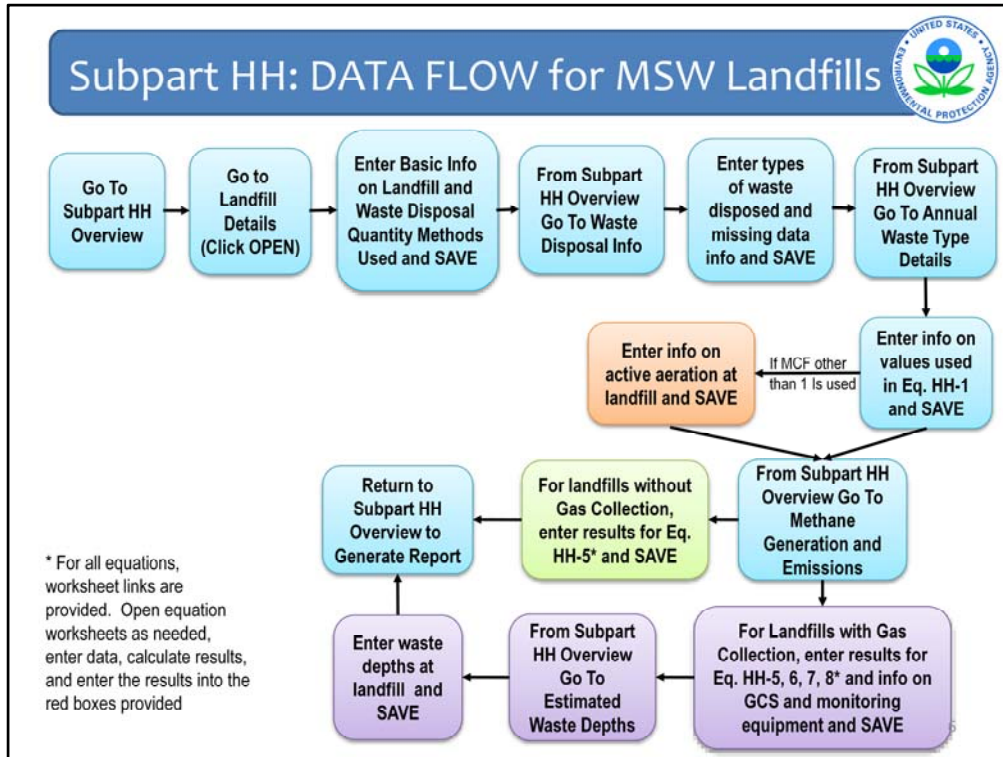
5

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.

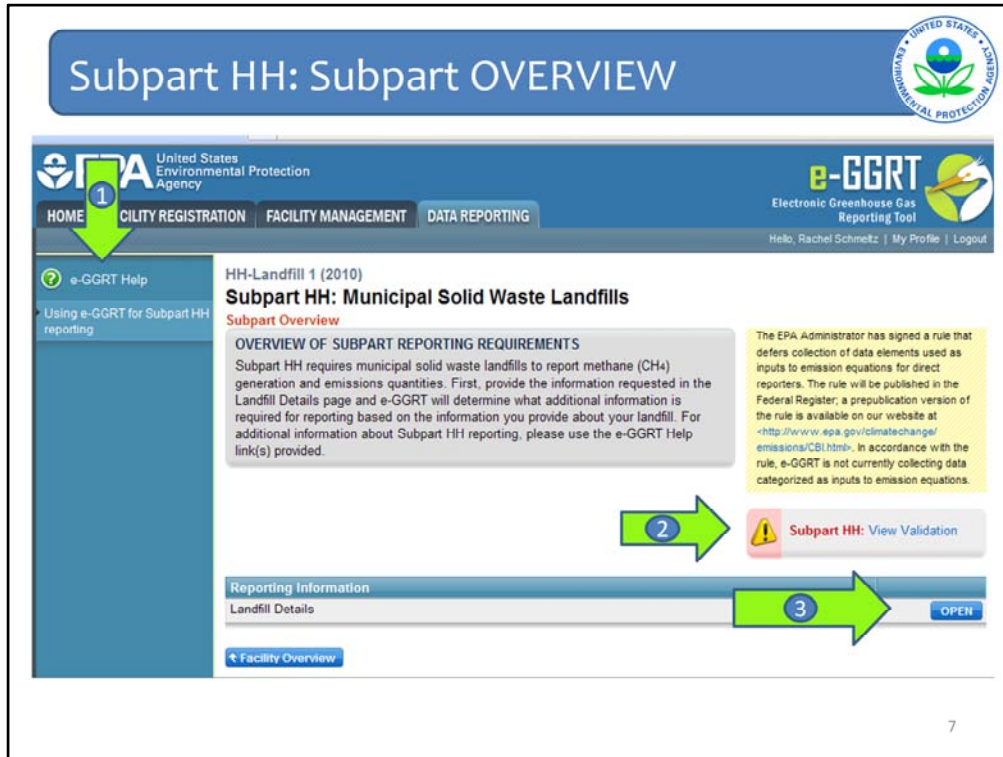
Here you see that Subpart HH has been added to the Source Category list.

Once that subpart appears, click OPEN next to it to begin entering your landfill data.



This slide presents the flow of data entry for subpart HH. It is a busy chart because there is a lot of information to provide for MSW landfills.

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.

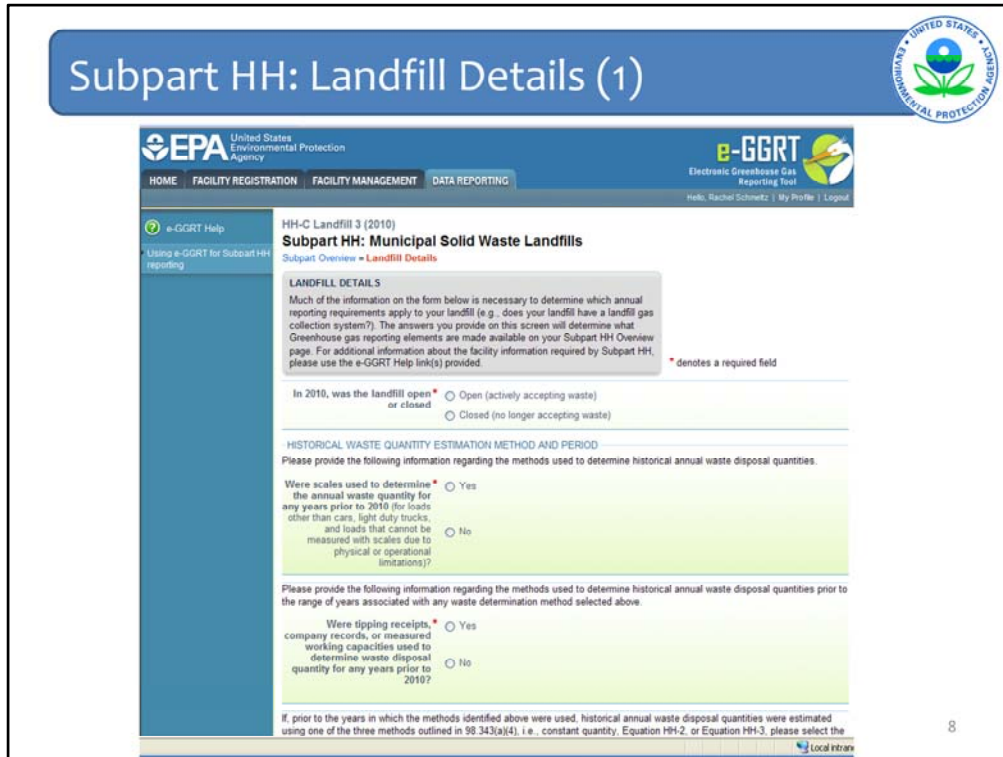
When you click OPEN next to subpart HH, you are taken to the Subpart Overview page. This is your “navigation page” for the entire module. Since we are just beginning the subpart HH module for this facility, all you see listed is the Landfill Details page. Before we dive in, there are a couple of other features to point out:

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

Arrow #2 will tell you if you have any validation messages. You will see as we walk through how this spot will change. Right now there are no validation messages, because no data has been entered so there is nothing to validate.

The gray boxes at the top of each page give a brief description of what that page is about. In this case it gives 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.

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

A fine example is the first question here.

In 2010 (or subsequent reporting year) was the landfill 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 of MSW landfill in the GHG reporting rule, all areas in which MSW waste is disposed in a contiguous geographic space is considered as one landfill for purposes of this rule. In answering whether the landfill is open or closed, the reporter should answer open if any sections/cells of the facility are open, even if some are closed.

Subpart HH: Landfill Details (2)

HH-C Landfill 3 (2010)
Subpart HH: Municipal Solid Waste Landfills
 Subpart Overview » Landfill Details

LANDFILL DETAILS
 Much of the information on the form below is necessary to determine which annual reporting requirements apply to your landfill (e.g., does your landfill have a landfill gas collection system?). The answers you provide on this screen will determine what Greenhouse gas reporting elements are made available on your Subpart HH Overview page. For additional information about the facility information required by Subpart HH, please use the e-GGRT Help link(s) provided. * denotes a required field

In 2010, was the landfill open or closed? Open (actively accepting waste)
 Closed (no longer accepting waste)

If the landfill is open, the estimated year of landfill closure: (year)

2010 WASTE DISPOSAL QUANTITY METHOD
 Please select the method used to determine the annual quantity of waste disposed in 2010.

Indicate the method used to determine the 2010 annual waste quantity (for loads other than cars, light duty trucks, and loads that cannot be measured with scales due to physical or operational limitations):

Used scales to weigh loads before off-loading and either used scales to weigh individual loads after off-loading or used representative tare vehicle/container weights.
 Used working capacity for each vehicle/container
 Other

Other should only be used to indicate if best available monitoring methods (BAMM) were used. Facilities must use methods specified in the rule. If these circumstances apply, please describe the determination method. Specify BAMM methods in Subpart A reporting form.

If you changed the method used for determining waste disposal quantities during the reporting year, answer the question above by reporting the method used at the end of the reporting year. In addition, please provide an explanation as to why you changed methods, e.g., you installed scales at your facility mid-year. Please provide this explanation in the Subpart A text box that requests an explanation of changes to calculation methodologies.

The choice is between open or closed. In this slide I have chosen “open”.

Because the landfill was open in the reporting year, the next question pulls down and I then have to indicate the year in which the landfill is expected to close (Arrow #1).

If the landfill was open in the reporting year, you will also have to select the method that was used to determine the quantity of waste received at the landfill in the reporting year for loads other than cars, light duty trucks, and loads that cannot be measured with scales due to physical or operational limitations. Choose from one of the methods listed by Arrow #2. These methods are also called “Determination Methods” which will become important in later slides.

A facility can only select ‘other’ if best available monitoring methods (aka BAMM) were used. Facilities using BAMM after March 31, 2010 until December 31, 2010 were to have received written approval from EPA to do so. Such approval was only granted for the first year of monitoring. More information on BAMM may be found in Section 98.3(d)(1) and (2) of the rule. If you did use BAMM you must also specify the methods that were used in the text box provided in the subpart A web form. In all other cases, facilities are required to use the methods outline in the rule. **Please note that BAMM is no longer acceptable after the 2010 reporting year.**

Note the text underneath the determination methods. If you changed the method used for determining waste disposal quantities during the reporting year, answer the question by reporting the method used at the end of the reporting year. In addition, please provide an explanation as to why you changed methods, e.g., you installed scales at your facility mid-year. Please provide this explanation in the Subpart A text box that requests an explanation of changes to calculation methodologies.

Subpart HH: Landfill Details (2a)

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

NAICS CODES

NAICS Code	Description	Relevance	Delete
562212	Solid Waste Landfill	Primary	X

+ ADD a NAICS Code

U.S. PARENT COMPANIES

Parent Company	Address	% of Ownership	Delete
Waste Is Great	1310 L Street, NW, Washington, DC 20005	100.0	X

+ ADD a Parent Company

GHG report start date: 01/01/2010

GHG report end date: 12/31/2010

Explanation of any calculation methodology changes during the reporting year:

Description of best available monitoring methods (BAMM) used during the reporting year:

If a facility or supplier used best available monitoring methods for all or part of the reporting year, both in the case where BMM was automatically granted under the rule and where the use of BMM required EPA approval, subpart A requires you to report the following information:

- A brief description of each best available monitoring method used,
- The parameter measured using the method, and
- The time period during which the best available monitoring method was used

Do reported emissions include emissions from a cogeneration unit?

Yes

No

Not applicable because I am a supplier

Facility Overview SAVE CANCEL

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Here is a screenshot from the subpart A reporting module. You can see where to enter the information just described:

At Arrow #1 provide any explanation as to why you changed methods, e.g., you installed scales at your facility mid-year.

At Arrow #2 provide the description of the BMM that was used, the parameter that it measured, and when it was used. **Please note that BMM is no longer acceptable for subpart HH after the 2010 reporting year.**

Subpart HH: Landfill Details (3)

HH-C Landfill 3 (2010)
Subpart HH: Municipal Solid Waste Landfills
 Subpart Overview » Landfill Details

LANDFILL DETAILS
 Much of the information on the form below is necessary to determine which annual reporting requirements apply to your landfill (e.g., does your landfill have a landfill gas collection system?). The answers you provide on this screen will determine what Greenhouse gas reporting elements are made available on your Subpart HH Overview page. For additional information about the facility information required by Subpart HH, please use the e-GGRT Help link(s) provided. * denotes a required field

In 2010, was the landfill open* or closed? Open (actively accepting waste) Closed (no longer accepting waste)

HISTORICAL WASTE QUANTITY ESTIMATION METHOD AND PERIOD
 Please provide the following information regarding the methods used to determine historical annual waste disposal quantities.

Were scales used to determine* the annual waste quantity for any years prior to 2010 (for loads other than cars, light duty trucks, and loads that cannot be measured with scales due to physical or operational limitations)? Yes No

Please provide the following information regarding the methods used to determine historical annual waste disposal quantities prior to the range of years associated with any waste determination method selected above.

Were tipping receipts,* company records, or measured working capacities used to determine waste disposal quantity for any years prior to 2010? Yes No

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Returning to the Subpart HH module, the Landfill Details page.

Alternatively, for this slide, I chose “closed” for the answer to the first question.

You are then taken directly to entering the historical waste quantity methods and years in which the method is used. You will note that you skip right to historical years and do not have to enter information on how you determined waste quantities in the reporting year, because there was no waste disposed during that year. The landfill was closed.

Note: If you reported prior to the current reporting year, the historical waste disposal quantity methods should be automatically populated and you will only need to enter data for the current reporting year. Please be sure to check over any data that is pre-populated to ensure its accuracy.

Subpart HH: Landfill Details (4)



Other should only be used to indicate if best available monitoring methods (BAMM) were used. Facilities must use methods specified in the table. If these circumstances apply, please describe the determination method. Specify BAMM methods in Subpart A reporting form.

If you changed the method used for determining waste disposal quantities during the reporting year, answer the question above by reporting the method used at the end of the reporting year. In addition, please provide an explanation as to why you changed methods, e.g., you installed scales at your facility mid-year. Please provide this explanation in the Subpart A text box that requests an explanation of changes to calculation methodologies.

HISTORICAL WASTE QUANTITY ESTIMATION METHOD AND PERIOD
Please provide the following information regarding the methods used to determine historical annual waste disposal quantities.

Were scales used to determine the annual waste quantity for any years prior to 2010 for loads other than cars, light duty trucks, and loads that cannot be measured with scales due to physical or operational limitations? Yes No

Please indicate the range of years the selected method was used by identifying the first and last year the method was used prior to 2010.

Scales period start* (year) (year)

Scales period end* (year) (year)

Please provide the following information regarding the methods used to determine historical annual waste disposal quantities prior to the range of years associated with any waste determination method selected above.

Were tipping receipts, company records, or measured working capacities used to determine waste disposed quantity for any years prior to 2010? Yes No

If prior to the years in which the methods identified above were used, historical annual waste disposal quantities were estimated using one of the three methods outlined in 18.34(a)(2), i.e., constant quantity, Equation 191-2, or Equation 191-3, please select the method used to estimate these historical annual waste disposal quantities, specify the range of years the method was used, and describe the reason the method was used. Otherwise, select "None."

Indicate the method used for estimating all annual waste quantities that are not determined with the methods above or through tipping

Method #1: Assume all prior year's waste disposal quantities are the same as the waste quantity in the first year for which waste quantities are available.

Method #2: Use the estimated population served by the landfill in each year, the values for national average per capita waste generation, and fraction of generated waste disposed.

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First question under Historical Waste Quantity Methods is whether you used scales in years prior to the reporting year (2010). I clicked yes, and so I am prompted to provide the year when I started using scales and the year when I stopped using scales.

Subpart HH: Landfill Details (5)



physical or operational limitations)?

Please indicate the range of years the selected method was used by identifying the first and last year the method was used prior to 2010.

Scales period start * 2006 (year)

Scales period end * 2009 (year)

Please provide the following information regarding the methods used to determine historical annual waste disposal quantities prior to the range of years associated with any waste determination method selected above.

Were tipping receipts, * Yes
company records, or measured working capacities used to determine waste disposal quantity for any years prior to 2010? No

Tipping receipts/company records period start 2000 (year) ← 1

Tipping receipts/company records period end 2005 (year)

If, prior to the years in which the methods identified above were used, historical annual waste disposal quantities were estimated using one of the three methods outlined in 98.343(a)(4), i.e., constant quantity, Equation HH-2, or Equation HH-3, please select the method used to estimate those historical annual waste disposal quantities, specify the range of years the method was used, and describe the reason the method was used. Otherwise, select "None."

Indicate the method used for estimating all annual waste quantities that are not determined with the methods above or through tipping receipts or company records

Method #1: Assume all prior year's waste disposal quantities are the same as the waste quantity in the first year for which waste quantities are available

Method #2: Use the estimated population served by the landfill in each year, the values for national average per capita waste generation, and fraction of generated waste disposed of in solid waste disposal sites (Equation HH-2)

Method #3: Use the landfill capacity or, for operating landfills, the amount of waste-in-place to estimate a constant average waste disposal quantity (Equation HH-3)

None

Estimation method period start 1995 (year)

Estimation method period end 1999 (year) ← 2

Reason for using the estimation method selected Most accurate given available data

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Per the rule, there are additional methods that may have been used to estimate your historical waste quantities. e-GGRT asks about each of these.

You are asked if you used tipping receipts, other company records, or measured working capacities to estimate waste quantities, click yes if you used them or no if you did not.

If you say yes, as shown here, you will be asked for the years you started using tipping receipts or other company records and the year you stopped using them (Arrow #1).

Then you are asked if you used any of the other methods listed in the rule to estimate your historical waste quantities. If one of these methods listed here was used (i.e., "None" was not selected), you must indicate the years you started and stopped using that method and also indicate the reason why that particular method was selected.

I selected Method 1 and so I then have to answer the questions by Arrow #2.

Another note on this page. You shouldn't have any gaps in years between the methods used. You may overlap in the years that methods were used. For example, if you used one method for part of one year and then another for another part of the year. You may get a validation message if your years overlap, so you should make sure your answer is accurate. However you will not be prevented from moving onto the next page in e-GGRT.

Subpart HH: Landfill Details (6)




receipts or company records	of in solid waste disposal sites (Equation HH-2)
	<input type="radio"/> Method #3. Use the landfill capacity or, for operating landfills, the amount of waste-in-place to estimate a constant average waste disposal quantity (Equation HH-3)
	<input type="radio"/> None
Estimation method period start	1995 (year)
Estimation method period end	1999 (year)
Reason for using the estimation method selected	Most accurate given available data
Last year the landfill accepted waste	<input type="text"/> (year) ← 1
Landfill capacity	<input type="text"/> (metric tons) ← 2
LANDFILL GAS COLLECTION SYSTEM	
Does the landfill have a landfill gas collection system	<input type="radio"/> Yes <input type="radio"/> No
Passive vents and/or flares are present (vents or flares that are not considered part of the gas collection system)	<input type="checkbox"/> (check if true)
Leachate recirculation was used during the reporting year	<input type="checkbox"/> (check if true)
Scales are present at the landfill	<input type="checkbox"/> (check if true)
Surface area of the landfill containing waste	<input type="text"/> (square meters)

If the landfill was closed in the reporting year and you did not use Method #3 from the previous slide to estimate historical waste quantities, you are then asked to indicate the year in which the landfill closed (Arrow #1).

If Method #3 was not selected, you are also asked to indicate the capacity of the landfill in metric tons (Arrow #2).

Subpart HH: Landfill Details (7)



method selected ▼

Last year the landfill accepted waste (year)

Landfill capacity (metric tons)

LANDFILL GAS COLLECTION SYSTEM

Does the landfill have a landfill* gas collection system Yes No

Manufacturer of the gas collection system

Capacity of the gas collection system (acfm)

Number of wells (wells)

Passive vents and/or flares are present (vents or flares that are not considered part of the gas collection system) (check if true)

Leachate recirculation was used during the reporting year (check if true)

Scales are present at the landfill (check if true)

Surface area of the landfill containing waste 300000 (square meters)

COVER MATERIALS

Identify each type of cover material used Organic cover Sand cover

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Next you are asked if you have landfill gas collection at your facility (Arrow #1). This is another key question because not only do you then have to answer some more questions on the Landfill Details page, but your answer also dictates the path of screens for the rest of your data entry. You will see this later in the webinar.

If you say yes that you have gas collection, as is shown in this slide, 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 thing to enter into the field asking for manufacturer of the gas collection system 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 flares. Also do not use this space to indicate the brand of measurement equipment used to monitor landfill gas flow or methane concentration.

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 do have passive vents or flares at your landfill. (Arrow #3)

Subpart HH: Landfill Details (8)



Does the landfill have a landfill gas collection system Yes
 No

Manufacturer of the gas collection system

Capacity of the gas collection system (acfm)

Number of wells (wells)

Passive vents and/or flares are present (vents or flares that are not considered part of the gas collection system) (check if true)

Leachate recirculation was used during the reporting year (check if true)

If leachate recirculation was used, the typical frequency of use

Select

Used several times a year for the past 10 years

Used at least once a year for the past 10 years

Used occasionally (but not every year) over the past 10 years

Scales are present at the landfill

Surface area of the landfill containing waste (square meters)

COVER MATERIALS

Identify each type of cover material used

<input checked="" type="checkbox"/> Organic cover	<input type="checkbox"/> Sand cover
<input checked="" type="checkbox"/> Clay cover	<input type="checkbox"/> Other soil mixture

[Subpart Overview](#) [CANCEL](#) [SAVE](#)

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Next you are asked about leachate recirculation

Check the box if leachate recirculation was used at the landfill during the emissions reporting year.

If you checked that box, another question appears asking you to indicate the typical frequency with which leachate recirculation was used over the past 10 years. Choose one of the options in the pull-down list as shown in this slide

Subpart HH: Landfill Details (9)



determined with the methods above or through tipping receipts or company records

Method #2. Use the estimated population served by the landfill in each year, the values for national average per capita waste generation, and fraction of generated waste disposed of in solid waste disposal sites (Equation HH-2)

Method #3. Use the landfill capacity or, for operating landfills, the amount of waste-in-place to estimate a constant average waste disposal quantity (Equation HH-3)

None

Estimation method period start (year)

Estimation method period end (year)

Reason for using the estimation method selected

LANDFILL GAS COLLECTION SYSTEM

Does the landfill have a landfill gas collection system Yes No

Passive vents and/or flares are present (vents or flares that are not considered part of the gas collection system) (check if true)

Leachate recirculation was used during the reporting year (check if true)

If leachate recirculation was used, the typical frequency of use

Scales are present at the landfill (check if true)

Surface area of the landfill containing waste (square meters)

COVER MATERIALS

Identify each type of cover material used

Organic cover Sand cover

Clay cover Other soil mixture

[Subpart Overview](#)

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Next, check the box if scales are present at your landfill in the reporting year (Arrow #1).

Enter the surface area of the landfill containing waste in square meters (Arrow #2). This is an instance where if you have a very large landfill, the surface area you enter may be outside of our expected range of values. This is OK. You will get a data quality validation message asking you to check to make sure the value you entered is correct, but you will not be prevented from continuing with your data entry in the system.

And the last item on the Landfill Details page, check all applicable boxes for the cover types in place at your landfill (Arrow #3).

Subpart HH: Landfill Details (10)



Scales are present at the landfill (check if true)

Surface area of the landfill containing waste (square meters)

COVER MATERIALS

Identify each type of cover material used

Organic cover Sand cover

Clay cover Other soil mixture

[← Subpart Overview](#) [CANCEL](#) [SAVE](#)



Click SAVE. This brings you back to the top of the page. Check your entries. Then click Subpart Overview to move on to the next section.

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When you have entered all of the information, 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 Subpart Overview by Arrow #2 to return to the Subpart Overview page.

Screen Errors if data is not entered



United States Environmental Protection Agency

HOME FACILITY REGISTRATION FACILITY MANAGEMENT DATA REPORTING

e-GGRT
Electronic Greenhouse Gas Reporting Tool

HH-C Landfill 3 (2018)
Subpart HH: Municipal Solid Waste Landfills
Subpart Overview » Landfill Details

LANDFILL DETAILS

Much of the information on the forms below is necessary to determine which annual reporting requirements apply to your landfill (e.g., does your landfill have a landfill gas collection system?). The answers you provide on this screen will determine what Greenhouse gas reporting elements are made available on your Subpart HH Overview page. For additional information about the facility information required by Subpart HH, please use the e-GGRT Help link(s) provided. * denotes a required field

SCREEN ERRORS

- Please indicate if the landfill is open or closed, or click CANCEL.
- Please indicate if scales were used to determine the annual waste quantity for any years prior to 2010. This data element is required.
- Please select the method used to estimate historical waste quantities, or select None, if applicable. This data element is required.
- Please indicate if the landfill has a landfill gas collection system, or click CANCEL.
- Please indicate if tipping receipts or company records were used to determine waste disposal quantities prior to 2010, or click CANCEL.

In 2010, was the landfill open* Open (actively accepting waste) or closed Closed (no longer accepting waste)

HISTORICAL WASTE QUANTITY ESTIMATION METHOD AND PERIOD

Please provide the following information regarding the methods used to determine historical annual waste disposal quantities.

Were scales used to determine* the annual waste quantity for any years prior to 2010 (for loads other than cars, light duty trucks, and loads that cannot be measured with scales due to physical or operational limitations)? Yes No

Please provide the following information regarding the methods used to determine historical annual waste disposal quantities prior to the range of years associated with any waste determination method selected above.

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If you did not enter certain information that was required to proceed in e-GGRT, you will get error messages like these telling you that you need to answer certain questions by selecting something or 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.

The screenshot displays the EPA e-GGRT interface for Subpart HH reporting. At the top, the EPA logo and 'e-GGRT Electronic Greenhouse Gas Reporting Tool' are visible. The navigation bar includes 'HOME', 'FACILITY REGISTRATION', 'FACILITY MANAGEMENT', and 'DATA REPORTING'. The user is identified as 'Rachel Schmetz'. The main heading is 'Subpart HH: Municipal Solid Waste Landfills'. Below this, there is an 'Overview of Subpart Reporting Requirements' section explaining that Subpart HH requires reporting methane (CH₄) generation and emissions. A yellow warning box notes that the EPA Administrator has signed a rule deferring data collection for direct reporters. A table of reporting information is shown with the following rows and 'OPEN' buttons:

Reporting Information	
Landfill Details	OPEN
Waste Disposal Information	OPEN
Annual Waste Type Details	OPEN
Methane Generation and Emissions for Landfills with LFG Collection Systems	OPEN
Estimated Waste Depths	OPEN

A green arrow points to the 'Waste Disposal Information' row. A 'Facility Overview' button is located at the bottom left of the table area.

Let's assume you entered all of the information required to proceed, clicked Subpart Overview and are now back to the Subpart Overview page:

Because you used scales to determine waste disposal quantities for historical years, e-GGRT then asks for more information on the wastes that were disposed. So click OPEN next to Waste Disposal Information. You will also be asked for this additional information for the current reporting year

Note: Open landfills will always be prompted for this next screen because scales or working capacities has to be used for the reporting year. But for closed landfills that did not use scales, this line will not appear on the Subpart Overview page.

On the Waste Disposal Information page, you are then asked to indicate if any missing data procedures were used (By Arrow #1). If you check the box that you did use missing data procedures, you must enter the number of days you used those procedures.

Next, click which option from Table HH-1 you used to determine your DOC and k values (Arrow #2). You must enter the option used for each year that comes up on this screen.

Note: If you reported prior to the current reporting year, the historical waste type details should be automatically populated and you will only need to enter data for the current reporting year.

Subpart HH: Waste Disposal Information (3)



HOME FACILITY REGISTRATION FACILITY MANAGEMENT DATA REPORTING Electronic Greenhouse Gas Reporting Tool
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e-GGRT Help
Using e-GGRT for Subpart HH reporting

Schmetz Landfill Management (2010)
Subpart HH: Municipal Solid Waste Landfills
Subpart Overview » **Determined Waste Quantities**

ANNUAL QUANTITIES OF WASTE DISPOSED AND WASTE TYPES
Use this page to provide information about missing data and waste types for the annual quantity of waste disposed in 2010 (and any prior year in which waste quantities were determined according to the methods described by 98.343(a)(3)). For additional information about the data reported on this page, please use the e-GGRT Help link(s) provided.

2010 WASTE QUANTITY
A missing data procedure was used to determine 2010 waste quantity (check if true)
Number of days substitute data was used to determine the 2010 waste quantity (days)

Identify the option used (from Table HH-1) to select the waste type(s) disposed of at the landfill:
 Bulk waste option
 Modified bulk MSW option
 Waste composition option

Identify each of the waste types that comprise the 2010 waste quantity
 Bulk MSW waste (excluding inerts and C&D waste)
 Bulk C&D waste
 Inerts (e.g. glass, plastics, metal, cement)

2009 WASTE QUANTITY
A missing data procedure was used to determine 2009 waste quantity (check if true)
Number of days substitute data was used to determine the 2009 waste quantity (days)

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Depending on which option you choose, you will be prompted to further refine the waste types, again depending upon how they are broken down in Table HH-1.

For the modified bulk MSW option you are given three choices for waste types. Choose all that apply.

Subpart HH: Waste Disposal Information (4)

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Schmetz Landfill Management (2010)
Subpart HH: Municipal Solid Waste Landfills
 Subpart Overview » **Determined Waste Quantities**

ANNUAL QUANTITIES OF WASTE DISPOSED AND WASTE TYPES
 Use this page to provide information about missing data and waste types for the annual quantity of waste disposed in 2010 (and any prior year in which waste quantities were determined according to the methods described by 98.343(a)(3)). For additional information about the data reported on this page, please use the e-GGRT Help link(s) provided.

2010 WASTE QUANTITY
 A missing data procedure was used to determine 2010 waste quantity (check if true)
 Number of days substitute data was used to determine the 2010 waste quantity (days)

Identify the option used (from Table HH-1) to select the waste type(s) disposed of at the landfill:
 Bulk waste option
 Modified bulk MSW option
 Waste composition option

Identify each of the waste types that comprises the 2010 waste quantity
 food waste garden
 sewage sludge paper
 wood and straw textiles
 diapers bulk waste
 inerts (e.g. glass, plastics, metal, cement)

2009 WASTE QUANTITY
 A missing data procedure was used to determine 2009 waste quantity (check if true)

And for the Waste composition option you are shown 9 choices. Again choose all applicable waste types.

Complete this for all years for which you used the determination methods for your waste quantities.

Again click SAVE, check over what you entered, and then return to the Subpart Overview page.

Subpart HH: Annual Waste Type Details (1)

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e-GGRT Electronic Greenhouse Gas Reporting Tool

HOME FACILITY REGISTRATION FACILITY MANAGEMENT DATA REPORTING

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e-GGRT Help
Using e-GGRT for Subpart HH reporting

HH-C Landfill 3 (2010)
Subpart HH: Municipal Solid Waste Landfills
Subpart Overview

OVERVIEW OF SUBPART REPORTING REQUIREMENTS
Subpart HH requires municipal solid waste landfills to report methane (CH₄) generation and emissions quantities. First, provide the information requested in the Landfill Details page and e-GGRT will determine what additional information is required for reporting based on the information you provide about your landfill. For additional information about Subpart HH reporting, please use the e-GGRT Help link(s) provided.

The EPA Administrator has signed a rule that defers collection of data elements used as inputs to emission equations for direct reporters. The rule will be published in the Federal Register; a prepublication version of the rule is available on our website at <http://www.epa.gov/climatechange/emissions/CB1.html>. In accordance with the rule, e-GGRT is not currently collecting data categorized as inputs to emission equations.

Subpart HH: View Validation

Reporting Information	
Landfill Details	OPEN
Waste Disposal Information	OPEN
Annual Waste Type Details	OPEN
Methane Generation and Emissions for Landfills with LFG Collection Systems	OPEN
Estimated Waste Depths	OPEN

[Facility Overview](#)

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Where you will click OPEN next to Annual Waste Type Details.

Subpart HH: Annual Waste Type Details (2)


Consider these two questions for each waste type you entered for each year that you used one of the determination methods.

The first question (Arrow #1) 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 #2) is about the MCF value used. Again, if the default of 1.0 was NOT used, check the box.

Enter this info for all the waste types in all the years. Click SAVE, check your entries, and then click Subpart Overview.

Note: Even if you did not check any of the boxes on this page, you must click SAVE or your data will not be recorded.



 UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Subpart HH: Active Aeration Information (1)



United States Environmental Protection Agency

HOME FACILITY REGISTRATION FACILITY MANAGEMENT DATA REPORTING



Electronic Greenhouse Gas Reporting Tool

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[e-GGRT Help](#)

Using e-GGRT for Subpart HH reporting

HH-C Landfill 3 (2010)


Subpart HH: Municipal Solid Waste Landfills

Subpart Overview

OVERVIEW OF SUBPART REPORTING REQUIREMENTS

Subpart HH requires municipal solid waste landfills to report methane (CH₄) generation and emissions quantities. First, provide the information requested in the Landfill Details page and e-GGRT will determine what additional information is required for reporting based on the information you provide about your landfill. For additional information about Subpart HH reporting, please use the e-GGRT Help link(s) provided.

The EPA Administrator has signed a rule that defers collection of data elements used as inputs to emission equations for direct reporters. The rule will be published in the Federal Register, a prepublication version of the rule is available on our website at http://www.epa.gov/climatechange/ghg_emissions/CI1.html. In accordance with the rule, e-GGRT is not currently collecting data categorized as inputs to emission equations.


[Subpart HH: View Validation](#)

Reporting Information	
Landfill Details	OPEN
Waste Disposal Information	OPEN
Annual Waste Type Details	OPEN
Active Aeration Information	OPEN
Methane Generation and Emissions for Landfills with LFG Collection Systems	OPEN
Estimated Waste Depths	OPEN

[Facility Overview](#)

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If you check true for the second question as to whether an MCF other than the default of 1 was used, that means that you must have active aeration at your landfill and so a new line will appear on the Subpart Overview page.

Click OPEN next to Active Aeration Information.

Subpart HH: Active Aeration Information (2)

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e-GGRT Electronic Greenhouse Gas Reporting Tool

HOME FACILITY REGISTRATION FACILITY MANAGEMENT DATA REPORTING

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Schmeltz Landfill Management (2010)

Subpart HH: Municipal Solid Waste Landfills

Subpart Overview » Annual Waste Type Details » **Aeration Information**

ACTIVE AERATION OF WASTE

Because you have indicated that you have used something other than the default methane correction factor (MCF) value of 1 for a waste type on the Annual Waste Type Details page, please provide the following information about active aeration of waste at your landfill. For additional information about active aeration of waste information, please use the e-GGRT Help link(s) provided. * denotes a required field

Aeration blower capacity (scfm)

Fraction of the landfill containing waste affected by the aeration (percentage expressed as decimal fraction)

Total hours during the year aeration blower was operated (hours)

Other factors used as a basis for the selected MCF value

Any additional description of the aeration system

[Subpart Overview](#)

Because you used an MCF value other than the default, you must enter the following information about the aeration system in use at your landfill:

- The aeration blower capacity (include the total capacity of all blowers)
- The fraction of the landfill containing waste affected by the 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.
- Any additional description of the aeration system that you would like to provide (for example, the number of blowers).

When you have entered that information, click SAVE. You will be brought back to the top of the "Aeration Information" page. Check over the information you entered. When you have completed your check, click SUBPART OVERVIEW to return to the Subpart Overview page.

The screenshot shows the EPA e-GGRT interface for Subpart HH reporting. The page title is "Subpart HH: Methane Generation and Emissions for Landfills without Gas Collection (1)". The main content area is titled "Subpart HH: Municipal Solid Waste Landfills" and includes an "Overview" section with the following text:

OVERVIEW OF SUBPART REPORTING REQUIREMENTS
 Subpart HH requires municipal solid waste landfills to report methane (CH₄) generation and emissions quantities. First, provide the information requested in the Landfill Details page and e-GGRT will determine what additional information is required for reporting based on the information you provide about your landfill. For additional information about Subpart HH reporting, please use the e-GGRT Help link(s) provided.

A yellow warning box states: "The EPA Administrator has signed a rule that defers collection of data elements used as inputs to emission equations for direct reporters. The rule will be published in the Federal Register; a prepublication version of the rule is available on our website at <http://www.epa.gov/climatechange/emissions/CBI.html>. In accordance with the rule, e-GGRT is not currently collecting data categorized as inputs to emission equations."

A "Subpart HH: View Validation" button is located below the warning box. A table of reporting information is shown below:


Reporting Information	
Landfill Details	OPEN
Waste Disposal Information	OPEN
Annual Waste Type Details	OPEN
Active Aeration Information	OPEN
Methane Generation and Emissions for Landfills without LFG Collection Systems	OPEN

A green arrow points to the "Methane Generation and Emissions for Landfills without LFG Collection Systems" row. A "Facility Overview" button is located at the bottom left of the table.


Now we move onto the real meat of the subpart.


How you answered the question about whether your landfill has gas collection will dictate which screens are next available to you.

Let's say I said that my landfill did not have a gas collection system. So 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.


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Subpart HH: Methane Generation and Emissions for Landfills without Gas Collection (2)


 United States Environmental Protection Agency



 Electronic Greenhouse Gas Reporting Tool

[HOME](#)
[FACILITY REGISTRATION](#)
[FACILITY MANAGEMENT](#)
[DATA REPORTING](#)
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[e-GGRT Help](#)

 Using e-GGRT for Subpart HH reporting

HH-Landfill 1 (2010)

Subpart HH: Municipal Solid Waste Landfills

[Subpart Overview](#) » [GHG Reporting](#)

CH₄ EMISSIONS (FOR LANDFILLS WITHOUT A GAS COLLECTION SYSTEM)

Landfills that do not have a landfill gas collection system, are required to report annual CH₄ emissions (i.e., the CH₄ generation, adjusted for oxidation, calculated using Equation HH-5 of this subpart), reported in metric tons of CH₄. For additional information, please use the e-GGRT Help link(s) provided.

Methane generation, adjusted for oxidation, from the landfill in the reporting year (metric tons CH₄)

0

EQUATION HH-5 SUMMARY AND RESULT

$$MG = G_{CH_4} \times (1 - OX)$$

Hover over an element in the equation above to reveal a definition of that element.

CH₄ generation, adjusted for oxidation, from the landfill in the reporting year.

 (metric tons CH₄)

 Use Subpart HH-5 equation spreadsheet to calculate

Spreadsheets are also available for calculating inputs to Equation HH-5. Use the Subpart HH-1 and HH-2, HH-3 spreadsheets to calculate inputs to Equation HH-5 as needed.

[Subpart Overview](#)
[CANCEL](#)
[SAVE](#)

Here you see Equation HH-5 which is CH₄ generation, adjusted for oxidation, from the landfill in the reporting year (in metric tons of CH₄).

Subpart HH: Methane Generation and Emissions for Landfills without Gas Collection (3)

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You can hover over an element in the equation to read a definition of that element as needed.

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 HH-5 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.

Calculation Spreadsheets, CBI and Inputs



- All elements included in e-GGRT are required reporting elements, as applicable
- E-GGRT currently reflects the rule deferring reporting of inputs to emission equations that was signed by the Administrator on August 19, 2011. A link to the final rule can be found at the GHG Reporting Program Website: <http://www.epa.gov/ghgreporting/reporters/cbi/index.html>
- Data elements that have been determined to be CBI must be reported
- Reporting elements that have been determined to be CBI will be protected under the Clean Air Act (Sec. 114 (c)) and EPA regulations (40 CFR Part 2)

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Please note that if you used the Optional Calculation Spreadsheets for previous reporting, those spreadsheets may have changed. Be sure to download the most recent and correct version of the calculation spreadsheets from the e-GGRT Help site.

E-GGRT currently reflects the rule deferring reports of inputs to emission equations for direct emitters.

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. 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 on to 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 not use the spreadsheets, you may choose to maintain copies to help meet your record-keeping requirements.

Subpart HH: Calculation Worksheets (1)

Using Module Help · Home · Subpart HH—Municipal Solid Waste Landfills · Subpart HH Help

Using Subpart HH Calculation Spreadsheets

e-GGRT
 Reporting and Recordkeeping System

Using Subpart HH Calculation Spreadsheets

11 Added by John Galdrist, last edited by John Galdrist on Apr 01, 2011 (view change)

Subpart HH: Municipal Solid Waste Landfills

Using Subpart HH Calculation Spreadsheets

Overview

This help page provides guidance for working with the supplemental Subpart HH calculation spreadsheets. The guidance provides step-by-step instructions for the following tasks:

- Selecting the Appropriate Calculation Spreadsheet
- Downloading a Calculation Spreadsheet
- General Information on Using a Calculation Spreadsheet
- Using the Equation HH-1 Calculation Spreadsheet
- Using the Equation HH-2, HH-3 Calculation Spreadsheet
- Using the Equation HH-4 Calculation Spreadsheet
- Using the Equation HH-6 Calculation Spreadsheet
- Using the Equation HH-7, HH-8 Calculation Spreadsheet

The use of these calculation spreadsheets is voluntary. The spreadsheets are meant to support reporters as they complete the e-GGRT online reporting process. Users are not currently required to submit the calculation spreadsheets through e-GGRT but should maintain a copy for recordkeeping purposes. EPA may request this information in subsequent reporting years.

Specific information on each calculation spreadsheet is provided below:

Calculation Spreadsheet (click to download)	Calculation Result	Spreadsheet Applicability	Instructions (click to view)
Equation HH-1 Calculation Spreadsheet.xls	Modeled methane generation rate in reporting year	All landfills	HH-1 Help
Equation HH-2, HH-3 Calculation Spreadsheet.xls	Quantity of waste placed in the landfill in year x (wet basis)	Landfills where historical waste disposal quantity data are not readily available	HH-2, HH-3 Help
Equation HH-4 Calculation Spreadsheet.xls	Annual quantity of recovered CH ₄	Landfills with landfill gas collection systems	HH-4 Help

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

This is what you will see when you click on the worksheet link. You can access the worksheets themselves by Arrow #1, as well as help documents that will assist you in completing the worksheets by Arrow #2.

Subpart HH: Calculation Worksheets (2)



1 Subpart HH - Municipal Solid Waste Landfills - Calculating Methane Generation Adjusted for Oxidation Using Equation HH-5
2 DO NOT SUBMIT THIS WORKSHEET TO EPA - FOR FACILITY RECORDS ONLY
3 Version e-GGRT RY2010 R.01
4 Today's date 4/14/2011

6 Equation HH-5: $MG = G_{CH_4} \times (1 - OX)$

10 Facility Name:
11 Reporter Name:
12 Unit Name/ID:
13 Reporting Period:
14 Comments:
15 Unit Type: Municipal Solid Waste Landfill

17 Input Data

18 $[G_{CH_4}]$ = Modeled methane generation rate in reporting year from Equation HH-1 (metric tons CH_4)
19 $[OX]$ = Oxidation fraction. Use the default value of 0.1

21 Methane Generation Adjusted for Oxidation (metric tons) from Equation HH-5

22 $[MG]$ = Methane generation, adjusted for oxidation, from the landfill in the reporting year (metric tons CH_4)

23 0.00

24 Enter this value in e-GGRT

Getting back to Equation HH-5. This is the Equation HH-5 worksheet.

The green boxes are where you input data. The red box is the result that you 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_{CH_4} which is the result of Equation HH-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).

Subpart HH: Methane Generation and Emissions for Landfills without Gas Collection (4)

The screenshot displays the EPA e-GGRT interface for Subpart HH reporting. The main heading is "Subpart HH: Municipal Solid Waste Landfills". Below this, there is a section for "CH₄ EMISSIONS (FOR LANDFILLS WITHOUT A GAS COLLECTION SYSTEM)". The text explains that landfills without a gas collection system must report annual CH₄ emissions, calculated using Equation HH-5. The equation shown is $MG = G_{CH_4} \times (1 - OX)$. A red box highlights the input field for "CH₄ generation, adjusted for oxidation, from the landfill in the reporting year" with the value "50000 (metric tons CH₄)". A green arrow labeled "1" points to this input field. To the right, a calculator display shows "50.000" with a green arrow labeled "2" pointing to it. The interface includes a sidebar with "e-GGRT Help", navigation tabs (HOME, FACILITY REGISTRATION, FACILITY MANAGEMENT, DATA REPORTING), and a footer with "Subpart Overview", "CANCEL", and "SAVE" buttons.

Take the value that came up in the red box on the worksheet or however else you derived you methane generation value adjusted for oxidation via Equation HH-5 and enter it into the red box on this screen in e-GGRT indicated by arrow #1.

And you'll begin to see numbers in the calculator as shown by arrow #2.

That is all that is needed for landfills without gas collection.

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

Subpart HH: Methane Generation and Emissions for Landfills without Gas Collection (5)

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e-GGRT Electronic Greenhouse Gas Reporting Tool

HOME FACILITY REGISTRATION FACILITY MANAGEMENT DATA REPORTING

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e-GGRT Help

- Using e-GGRT for Subpart HH reporting
- Part 98 Glossary
- Part 98 Citations

Rachel Landfill Test #1 (2010)


Subpart HH: Municipal Solid Waste Landfills

Subpart Overview


OVERVIEW OF SUBPART REPORTING REQUIREMENTS

Subpart HH requires municipal solid waste landfills to report methane (CH₄) generation and emissions quantities. First, provide the information requested in the Landfill Details page and e-GGRT will determine what additional information is required for reporting based on the information you provide about your landfill. For additional information about Subpart HH reporting, please use the e-GGRT Help link(s) provided.

The EPA Administrator has signed a rule that defers collection of data elements used as inputs to emission equations for direct reporters. The rule will be published in the Federal Register; a prepublication version of the rule is available on our website at <http://www.epa.gov/climatechange/missions/CBI.html>. In accordance with the rule, e-GGRT is not currently collecting data categorized as inputs to emission equations.

 **Subpart HH: No Validation Messages**

Reporting Information	
Landfill Details	OPEN
Waste Disposal Information	OPEN
Annual Waste Type Details	OPEN
Methane Generation and Emissions for Landfills without LFG Collection Systems	OPEN

[← Facility Overview](#) 

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From the Subpart Overview page you will see by the green check that you have no validation messages and are therefore done with Subpart HH. So click Facility Overview to go back to your Facility Overview page

Subpart HH: Methane Generation and Emissions for Landfills without Gas Collection (6)



The screenshot displays the 'Facility or Supplier Overview' page in the e-GGRT system. The page title is 'HH-Landfill 1 (2010) e-GGRT Greenhouse Gas Data Reporting'. It provides instructions on how to add source or supplier categories and how to submit an annual report. A table lists subparts for reporting, with 'Subpart HH Landfills' currently set to 'None'. A 'GENERATE / SUBMIT' button is visible at the bottom of the report table. Three green arrows are overlaid on the page: Arrow #1 points to the 'ADD' button for subpart HH, Arrow #2 points to the 'GENERATE / SUBMIT' button, and Arrow #3 points to the 'OPEN' button for subpart HH. A sidebar on the right shows CO2 equivalent emissions data, including a total of 1,050,000 metric tons.

At this time you can either add a subpart by clicking by Arrow #1, if for example you have stationary combustion at your facility.

OR if you do not have to report any other source categories, you can move forward with generating your report by clicking by Arrow #2.

That is all that is needed for landfills without gas collection.

For landfills with gas collection, it is more detailed. We are now going to walk through the additional information that e-GGRT asks for from landfills with gas collection.

Let's say I realized that my landfill really does have gas collection and I made a mistake in saying that it did not. I would need to go back to the Subpart Overview page by clicking OPEN next to Subpart HH from the Facility Overview page here (Arrow #3).

If you change key data elements (1)



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e-GGRT Electronic Greenhouse Gas Reporting Tool

HOME FACILITY REGISTRATION FACILITY MANAGEMENT DATA REPORTING

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e-GGRT Help
Using e-GGRT for Subpart HH reporting

HH-C Landfill 2 (2010)
Subpart HH: Municipal Solid Waste Landfills
Subpart Overview

OVERVIEW OF SUBPART REPORTING REQUIREMENTS
Subpart HH requires municipal solid waste landfills to report methane (CH₄) generation and emissions quantities. First, provide the information requested in the Landfill Details page and e-GGRT will determine what additional information is required for reporting based on the information you provide about your landfill. For additional information about Subpart HH reporting, please use the e-GGRT Help link(s) provided.

The EPA Administrator has signed a rule that defers collection of data elements used as inputs to emission equations for direct reporters. The rule will be published in the Federal Register; a prepublication version of the rule is available on our website at <http://www.epa.gov/climatechange/emissions/CDL.html>. In accordance with the rule, e-GGRT is not currently collecting data elements categorized as inputs to emission equations.

Subpart HH: View Validations

Reporting Information	
Landfill Details	OPEN
Waste Disposal Information	OPEN
Annual Waste Type Details	OPEN
Active Aeration Information	OPEN
Methane Generation and Emissions for Landfills without LFG Collection Systems	OPEN

[Facility Overview](#)

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This is my Subpart Overview screen and I will click OPEN next to Landfill Details to change the information about the gas collection system.

If you change key data elements (2)



You will get a warning message that some of your data may be lost:

The screenshot shows a web form with the following fields and options:

- Tipping receipts/company records period end: 2008 (year)
- Estimation method period end: 2002 (year)
- Reason for using the estimation method selected: text
- LANDFILL GAS COLLECTION SYSTEM
- Does the landfill have a landfill gas collection system: Yes, No

A warning dialog box titled "Windows Internet Explorer" is overlaid on the form. It contains the following text:

Changing the answer to Does the landfill have a landfill gas collection system, will result in deleting any emissions data you may have already entered on the Landfill's GHG Reporting screen.

Click OK to continue with making this change.

OK

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 is 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, I click OK.

If you change key data elements (3)



method selected

Last year the landfill accepted waste (year)

Landfill capacity (metric tons)

LANDFILL GAS COLLECTION SYSTEM

Does the landfill have a landfill gas collection system Yes No

Manufacturer of the gas collection system

Capacity of the gas collection system (acfm)

Number of wells (wells)

Passive vents and/or flares are present (vents or flares that are not considered part of the gas collection system) (check if true)

Leachate recirculation was used during the reporting year (check if true)

Scales are present at the landfill (check if true)

Surface area of the landfill containing waste 300000 (square meters)

COVER MATERIALS

Identify each type of cover material used Organic cover Sand cover

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I clicked OK, and the answer changed to Yes that I do have a gas collection system. And then I am prompted to answer the questions about my gas collection system like was 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.

The screenshot displays the EPA e-GGRT interface for Subpart HH: Municipal Solid Waste Landfills. The page title is "Subpart HH: Methane Generation and Emissions for Landfills with Gas Collection (1)". The navigation menu includes HOME, FACILITY REGISTRATION, FACILITY MANAGEMENT, and DATA REPORTING. The sidebar contains "e-GGRT Help" and "Using e-GGRT for Subpart HH reporting". The main content area features an "Overview of Subpart Reporting Requirements" section, a yellow informational box about EPA Administrator rules, and a "Reporting Information" table. The table lists various reporting categories, with a green arrow pointing to the "Methane Generation and Emissions for Landfills with LFG Collection Systems" row. A "Subpart HH: View Validation" button is also visible.

Reporting Information	
Landfill Details	OPEN
Waste Disposal Information	OPEN
Annual Waste Type Details	OPEN
Active Aeration Information	OPEN
Methane Generation and Emissions for Landfills with LFG Collection Systems	OPEN
Estimated Waste Depths	OPEN

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.

Now click OPEN next to Methane Generation and Emissions for Landfills with Gas Collection Systems.

Subpart HH: Methane Generation and Emissions for Landfills with Gas Collection (2)



Schmelz Landfill Management (2010)
Subpart HH: Municipal Solid Waste Landfills
 Subpart Overview - GHG Reporting

CH₄ EMISSIONS (FOR LANDFILLS WITH A GAS COLLECTION SYSTEM)
 Landfills that have a landfill gas collection system are required to report two sets of CH₄ generation and CH₄ emissions values. CH₄ generation, adjusted for oxidation, must be reported as calculated using both Equations HH-5 and HH-7, and CH₄ emissions must be reported as calculated using both Equations HH-6 and HH-8. For additional information, please use the e-GGRT Help link(s) provided.

EQUATION HH-5 SUMMARY AND RESULT

$$MG = G_{CH_4} \times (1 - OX)$$
 Hover over an element in the equation above to reveal a definition of that element.

Modeled CH₄ generation, adjusted for oxidation (metric tons CH₄)
 Use Subpart HH-5 equation spreadsheets to calculate
 Spreadsheets are also available for calculating inputs to Equation HH-5. Use the Subpart HH-1 and HH-2, HH-3 spreadsheets to calculate inputs to Equation HH-5 as needed.

EQUATION HH-7 SUMMARY AND RESULT

$$MG = \frac{R}{DE \times Rec} \times (1 - OX)$$
 Hover over an element in the equation above to reveal a definition of that element.

Measured CH₄ generation, adjusted for oxidation (metric tons CH₄)
 Use Subpart HH-7 equation spreadsheets to calculate
 Spreadsheets are also available for calculating inputs to Equation HH-7. Use the Subpart HH-4 spreadsheet to calculate inputs to Equation HH-7.

EQUATION HH-6 SUMMARY AND RESULT

$$Emissions = [(G_{CH_4} - R) \times (1 - OX) + R \times (1 - (DE \times F_{Dest}))]$$
 Hover over an element in the equation above to reveal a definition of that element.

CH₄ emissions from the landfill in the reporting year (metric tons CH₄)

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- Next enter the appropriate values in metric tons of CH₄ for all of the red boxes:
- Modeled CH₄ generation, adjusted for oxidation using Equation HH-5
 - Measured CH₄ generation, adjusted for oxidation using Equation HH-7
 - CH₄ emissions from the landfill during the reporting year using Equation HH-6
 - CH₄ emissions from the landfill during the reporting year using Equation HH-8

For each equation again:

You can hover over an element in the equations to read a definition of that element as needed.

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 CH₄ 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.

Subpart HH: Methane Generation and Emissions for Landfills with Gas Collection (3)



Use Subpart HH-5 equation spreadsheets to calculate
 Spreadsheets are also available for calculating inputs to Equation HH-5. Use the Subpart HH-1 and HH-2, HH-3 spreadsheets to calculate inputs to Equation HH-5 as needed.

EQUATION HH-7 SUMMARY AND RESULT

$$MG = \frac{R}{CE \times f_{Rec}} \times (1 - OX)$$

Hover over an element in the equation above to reveal a definition of that element.

Measured CH₄ generation, adjusted for oxidation (metric tons CH₄)
 Use Subpart HH-7 equation spreadsheets to calculate
 Spreadsheets are also available for calculating inputs to Equation HH-7. Use the Subpart HH-4 spreadsheet to calculate inputs to Equation HH-7.

EQUATION HH-6 SUMMARY AND RESULT

$$Emissions = [(GCH_4 - R) \times (1 - OX) + R \times (1 - (DE \times f_{Dest}))]$$

Hover over an element in the equation above to reveal a definition of that element.

CH₄ emissions from the landfill in the reporting year (metric tons CH₄)
 Use Subpart HH-6 equation spreadsheets to calculate
 Spreadsheets are also available for calculating inputs to Equation HH-6. Use the Subpart HH-1, HH-2, HH-3, and HH-4 spreadsheets to calculate inputs to Equation HH-6 as needed.

For HH-6 was the value for CH₄ generation (GCH₄) modeled or measured
 Modeled (output of equation HH-1)
 Measured (output of equation HH-4)

EQUATION HH-8 SUMMARY AND RESULT

$$EMISSIONS = \left[\left(\frac{R}{CE \times f_{Rec}} - R \right) \times (1 - OX) + R \times (1 - (DE \times f_{Dest})) \right]$$

Hover over an element in the equation above to reveal a definition of that element.

CH₄ emissions from the landfill in the reporting year (metric tons CH₄)
 Use Subpart HH-8 equation spreadsheet to calculate.
 Spreadsheets are also available for calculating inputs to Equation HH-8. Use the Subpart HH-4 spreadsheet to calculate inputs to Equation HH-8.

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You must also indicate whether the input to Equation HH-6 was modeled or measured

Subpart HH: Methane Generation and Emissions for Landfills with Gas Collection (4)



Hover over an element in the equation above to reveal a definition of that element.

CH₄ emissions from the landfill in the reporting year (metric tons CH₄)

Use Subpart HH-8 equation spreadsheet to calculate.

Spreadsheets are also available for calculating inputs to Equation HH-8. Use the Subpart HH-4 spreadsheet to calculate inputs to Equation HH-8.

LANDFILL GAS COLLECTED FOR DESTRUCTION

Annual volume of landfill gas collected for destruction (scf) ← 1

A missing data procedure was used to determine the volume of landfill gas collected for destruction (check if true) ← 2

Number of days substitute data procedure was used to determine the volume of landfill gas collected for destruction (days) ← 2a

Annual average CH₄ concentration of landfill gas collected for destruction (percent) ← 3

A missing data procedure was used to determine CH₄ concentration of landfill gas collected for destruction (check if true) ← 4

If CH₄ is monitored daily, the number of days substitute data was used to determine the annual average CH₄ concentration of landfill gas collected for destruction (days) ← 4a

If CH₄ is monitored weekly, the number of weeks substitute data was used to determine the annual average CH₄ concentration of landfill gas collected for destruction (weeks) ← 4b

Was temperature incorporated into internal calculations run by the collection system's monitoring equipment? Yes No

Was pressure incorporated into internal calculations run by the collection system's monitoring equipment? Yes No

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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 (information about appropriate procedures for estimating missing data is found in §98.345) (Arrow #2).

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 CH₄ of landfill gas collected for destruction (Arrow #3)

Indicate if a missing data procedure was used to determine the concentration of CH₄ in landfill gas collected for destruction (information about appropriate procedures for estimating missing data are found in §98.345) (Arrow #4)

If a missing data procedure was used and the CH₄ concentration is monitored continuously, enter the number of days substitute data were used to determine the annual average CH₄ concentration of landfill gas collected for destruction (Arrow #4a)

If a missing data procedure was used and the CH₄ concentration is monitored weekly, enter the number of weeks substitute data were used to determine the annual average CH₄ 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 CH₄ concentration continuously at some locations and weekly at others.

Subpart HH: Methane Generation and Emissions for Landfills with Gas Collection (5)



volume of landfill gas collected for destruction	
Annual average CH ₄ concentration of landfill gas collected for destruction	<input type="text"/> (percent)
A missing data procedure was used to determine CH ₄ concentration of landfill gas collected for destruction	<input type="checkbox"/> (check if true)
If CH ₄ is monitored daily, the number of days substitute data was used to determine the annual average CH ₄ concentration of landfill gas collected for destruction	<input type="text"/> (days)
If CH ₄ is monitored weekly, the number of weeks substitute data was used to determine the annual average CH ₄ concentration of landfill gas collected for destruction	<input type="text"/> (weeks)
Was temperature incorporated into internal calculations run by the collection system's monitoring equipment?	<input type="radio"/> Yes <input type="radio"/> No
Was pressure incorporated into internal calculations run by the collection system's monitoring equipment?	<input type="radio"/> Yes <input type="radio"/> No
Was landfill gas flow measured on a wet or dry basis?	<input type="radio"/> Wet basis <input type="radio"/> Dry basis
Was CH ₄ concentration measured on a wet or dry basis?	<input type="radio"/> Wet basis <input type="radio"/> Dry basis
Destruction occurred at the facility or off-site	<input type="radio"/> At the facility (on-site) <input type="radio"/> Off-site
← Subpart Overview CANCEL SAVE	

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

Subpart HH: Methane Generation and Emissions for Landfills with Gas Collection (6)



Was temperature incorporated into internal calculations run by the collection system's monitoring equipment? Yes No

AVERAGE MONTHLY TEMPERATURE AT WHICH FLOW IS MEASURED

January	<input type="text"/>	(degrees Rankine)
February	<input type="text"/>	(degrees Rankine)
March	<input type="text"/>	(degrees Rankine)
April	<input type="text"/>	(degrees Rankine)
May	<input type="text"/>	(degrees Rankine)
June	<input type="text"/>	(degrees Rankine)
July	<input type="text"/>	(degrees Rankine)
August	<input type="text"/>	(degrees Rankine)
September	<input type="text"/>	(degrees Rankine)
October	<input type="text"/>	(degrees Rankine)
November	<input type="text"/>	(degrees Rankine)
December	<input type="text"/>	(degrees Rankine)

Was pressure incorporated into internal calculations run by the collection system's monitoring equipment? Yes No

Was landfill gas flow measured on a wet or dry basis? Wet basis Dry basis

Was CH₄ concentration measured on a wet or dry basis? Wet basis Dry basis

Destruction occurred at the facility or off-site At the facility (on-site) Off-site

[Subpart Overview](#)

Temperature is not already incorporated so have to correct for it

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.

Subpart HH: Methane Generation and Emissions for Landfills with Gas Collection (7)



equipment?

Was pressure incorporated into internal calculations run by the collection system's monitoring equipment? Yes No

Was landfill gas flow measured on a wet or dry basis? Wet basis Dry basis

Was CH₄ concentration measured on a wet or dry basis? Wet basis Dry basis

AVERAGE MONTHLY MOISTURE CONTENT

January	<input type="text"/>	(expressed as a decimal fraction)
February	<input type="text"/>	(expressed as a decimal fraction)
March	<input type="text"/>	(expressed as a decimal fraction)
April	<input type="text"/>	(expressed as a decimal fraction)
May	<input type="text"/>	(expressed as a decimal fraction)
June	<input type="text"/>	(expressed as a decimal fraction)
July	<input type="text"/>	(expressed as a decimal fraction)
August	<input type="text"/>	(expressed as a decimal fraction)
September	<input type="text"/>	(expressed as a decimal fraction)
October	<input type="text"/>	(expressed as a decimal fraction)
November	<input type="text"/>	(expressed as a decimal fraction)
December	<input type="text"/>	(expressed as a decimal fraction)

Destruction occurred at the facility or off-site At the facility (on-site) Off-site Both

[Subpart Overview](#)

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Flow and concentration measured on different bases so have to correct for moisture content

Indicate whether landfill gas flow was measured on a wet or a dry basis and whether CH₄ concentration was measured on a wet or a dry basis

If landfill gas flow was measured on a wet basis and CH₄ 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.

Subpart HH: Methane Generation and Emissions for Landfills with Gas Collection (8)



Was pressure incorporated into internal calculations run by the collection system's monitoring equipment? Yes No

Was landfill gas flow measured on a wet or dry basis? Wet basis Dry basis

Was CH₄ concentration measured on a wet or dry basis? Wet basis Dry basis

Destruction occurred at the facility or off-site At the facility (on-site) Off-site Both

A back-up destruction device is present (check if true)

[Subpart Overview](#) [CANCEL](#) [SAVE](#)

← 1

← 2

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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.

Subpart HH: Methane Generation and Emissions for Landfills with Gas Collection – Waste Depths (1)

The screenshot shows the EPA e-GGRT web application interface. At the top, there is a navigation bar with the EPA logo and the text "United States Environmental Protection Agency". The main header area contains the title "Subpart HH: Methane Generation and Emissions for Landfills with Gas Collection – Waste Depths (1)" and the e-GGRT logo. Below the header, there are navigation tabs: "HOME", "FACILITY REGISTRATION", "FACILITY MANAGEMENT", and "DATA REPORTING". The user is logged in as "nelo, Rachel Schmetz" with options for "My Profile" and "Logout".

The main content area is titled "HH-C Landfill 3 (2010)" and "Subpart HH: Municipal Solid Waste Landfills". It includes a "Subpart Overview" section with the following text:

OVERVIEW OF SUBPART REPORTING REQUIREMENTS
 Subpart HH requires municipal solid waste landfills to report methane (CH₄) generation and emissions quantities. First, provide the information requested in the Landfill Details page and e-GGRT will determine what additional information is required for reporting based on the information you provide about your landfill. For additional information about Subpart HH reporting, please use the e-GGRT Help link(s) provided.

A yellow warning box on the right states: "The EPA Administrator has signed a rule that defers collection of data elements used as inputs to emission equations for direct reporters. The rule will be published in the Federal Register; a pre-publication version of the rule is available on our website at <http://www.epa.gov/climatechange/emissions/CBI.html>. In accordance with the rule, e-GGRT is not currently collecting data categorized as inputs to emission equations."

Below the overview, there is a "Reporting Information" table with the following rows and "OPEN" buttons:

Reporting Information	
Landfill Details	OPEN
Waste Disposal Information	OPEN
Annual Waste Type Details	OPEN
Active Aeration Information	OPEN
Methane Generation and Emissions for Landfills with LFG Collection Systems	OPEN
Estimated Waste Depths	OPEN

A green arrow points to the "OPEN" button for "Estimated Waste Depths". At the bottom left, there is a "Facility Overview" link.

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

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

EPA United States Environmental Protection Agency

e-GGRT Electronic Greenhouse Gas Reporting Tool

HOME FACILITY REGISTRATION FACILITY MANAGEMENT DATA REPORTING

Hello, Rachel Schmeitz | My Profile | Logout

e-GGRT Help

Using e-GGRT for Subpart HH reporting

Schmeitz Landfill Management (2010)

Subpart HH: Municipal Solid Waste Landfills

Subpart Overview • **Estimated Waste Depth**

WASTE DEPTH ESTIMATIONS

Please provide the estimated depth of each of the areas of the landfill, as shown below. For additional information, please use the e-GGRT Help link(s) provided.

ESTIMATED WASTE DEPTHS

A1: Depth of area with no waste in-place	<input type="text"/>	(meters)
A2: Depth of area without active gas collection, regardless of cover type	<input type="text"/>	(meters)
A3: Depth of area with daily soil cover and active gas collection	<input type="text"/>	(meters)
A4: Depth of area with an intermediate soil cover, or a final soil cover not meeting the criteria for A5	<input type="text"/>	(meters)
A5: Depth of area with a final soil cover of 3 feet or thicker of clay and/or geomembrane cover system and active gas collection	<input type="text"/>	(meters)

Subpart Overview CANCEL SAVE

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For landfills with gas collection, you must enter the estimates 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. Check your entries. When you have completed your check, click Subpart Overview to return to the Subpart Overview page.

The screenshot displays the EPA e-GGRT interface for Subpart HH reporting. At the top, there is a blue header with the title "Subpart HH: Validation Messages (1)" and the EPA logo. Below the header, the navigation menu includes "HOME", "FACILITY REGISTRATION", "FACILITY MANAGEMENT", and "DATA REPORTING". The user is logged in as "Rachel Schmetz".

The main content area is titled "HH-C Landfill 3 (2010) Subpart HH: Municipal Solid Waste Landfills". It features an "Overview" section with the following text:

OVERVIEW OF SUBPART REPORTING REQUIREMENTS
 Subpart HH requires municipal solid waste landfills to report methane (CH₄) generation and emissions quantities. First, provide the information requested in the Landfill Details page and e-GGRT will determine what additional information is required for reporting based on the information you provide about your landfill. For additional information about Subpart HH reporting, please use the e-GGRT Help link(s) provided.

To the right of the overview, a yellow box contains a message from the EPA Administrator regarding a rule that defers data collection. A green arrow points to a "Subpart HH: View Validation" button with a warning icon.

Below the overview, there is a "Reporting Information" table with the following rows and "OPEN" buttons:

Reporting Information	
Landfill Details	OPEN
Waste Disposal Information	OPEN
Annual Waste Type Details	OPEN
Active Aeration Information	OPEN
Methane Generation and Emissions for Landfills with LFG Collection Systems	OPEN
Estimated Waste Depths	OPEN

At the bottom left of the table, there is a "Facility Overview" button. The page number "50" is visible in the bottom right corner.

You have entered all your data and are back on the subpart overview page.

Note the yellow triangle saying "View Validation" that means you have validation messages.

Subpart HH: Validation Messages (2)



Schmeltz Landfill Management (2010)
Subpart HH: Municipal Solid Waste Landfills
Subpart Overview - Validation Report

SUBPART VALIDATION REPORT
This report contains a complete set of validation messages for all data required by this Subpart. For additional information about Validation Reports, please use the e-GGRT Help link(s) provided.

Print-friendly version

FACILITY LEVEL VALIDATION MESSAGES

Validation Type ¹	ID ²	Year	Message ³
Data Completeness	HH002		If the landfill is open, please enter the estimated year of landfill closure. This data element is required.
Data Completeness	HH024		Landfill capacity. This data element is required.
Data Completeness	HH039		The surface area of the landfill containing waste. This data element is required.
Data Quality	HH059	2010	Waste types are not yet indicated.
Data Completeness	HH060		Methane emissions from the landfill in the reporting year (Equation HH-6). This data element is required.
Data Completeness	HH060		Modeled methane generation, adjusted for oxidation (Equation HH-8). This data element is required.
Data Completeness	HH063		Modeled methane generation, adjusted for oxidation (Equation HH-5). This data element is required.
Data Completeness	HH066		Measured methane generation, adjusted for oxidation (Equation HH-7). This data element is required.
Data Completeness	HH069		Please indicate if the value for methane generation (GCH4) used in Equation HH-6 was modeled or measured. This element is required.
Data Completeness	HH070		Annual volume of landfill gas collected for destruction. This data element is required.
Data Completeness	HH076		Annual average methane concentration of landfill gas collected for destruction. This data element is required.
Data Completeness	HH084		Average monthly temperature at which flow is measured for January. Because you have indicated that temperature is not incorporated into internal calculations run by the collection system's monitoring equipment this data element is required.
Data Completeness	HH085		Average monthly temperature at which flow is measured for February. Because you have indicated that temperature is not incorporated into internal calculations run by the collection system's monitoring equipment this data element is required.
Data Completeness	HH086		Average monthly temperature at which flow is measured for March. Because you have indicated that temperature is not incorporated into internal calculations run by the collection system's monitoring equipment this data element is required.

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When you click to View Validation, this is what comes up. 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 the list. Each time you go back to the Subpart Overview page you can see if you have messages and look at what they are and go back and fix them along the way.

Subpart HH: Validation Messages (3) - Links



Data Completeness	HH090	Average monthly temperature at which flow is measured for July. Because you have indicated that temperature is not incorporated into internal calculations run by the collection systems's monitoring equipment this data element is required.
Data Completeness	HH091	Average monthly temperature at which flow is measured for August. Because you have indicated that temperature is not incorporated into internal calculations run by the collection systems's monitoring equipment this data element is required.
Data Completeness	HH092	Average monthly temperature at which flow is measured for September. Because you have indicated that temperature is not incorporated into internal calculations run by the collection systems's monitoring equipment this data element is required.
Data Completeness	HH093	Average monthly temperature at which flow is measured for October. Because you have indicated that temperature is not incorporated into internal calculations run by the collection systems's monitoring equipment this data element is required.
Data Completeness	HH094	Average monthly temperature at which flow is measured for November. Because you have indicated that temperature is not incorporated into internal calculations run by the collection systems's monitoring equipment this data element is required.
Data Completeness	HH095	Average monthly temperature at which flow is measured for December. Because you have indicated that temperature is not incorporated into internal calculations run by the collection systems's monitoring equipment this data element is required.
Data Completeness	HH122	Depth of area with no waste in-place (meters). This data element is required.
Data Completeness	HH125	Depth of area without active gas collection, regardless of cover type (meters). This data element is required.
Data Completeness	HH128	Depth of area with daily soil cover and active gas collection (meters). This data element is required.
Data Completeness	HH131	Depth of area with an intermediate soil cover, or a final soil cover not meeting the criteria for A5 (meters). This data element is required.
Data Completeness	HH134	Depth of area with a final soil cover of 3 feet or thicker of clay and/or geomembrane cover system and active gas collection. This data element is required.
Data Quality	HH137	2010 Group not yet selected

Subpart Overview

¹ Validation Types: e-GGRT generates a variety of validation types, defined below:

- Data Completeness: data required for reporting is missing or incomplete
- Data Quality: data is outside of the range of expected values. The value you have provided is outside the EPA estimated range for this data element. Please double check this value and revise, if necessary. If you believe it to be correct, please submit the value as is.
- Screen Error: a data value or combination of data values prevents e-GGRT from continuing to the next page. Typically, this will not appear on the Validation Report, but instead will be displayed on the data entry page at the time the error was created.

² ID: Each validation message contains a unique identifier. If you contact the e-GGRT Help Desk with a question about a validation message, please include this unique identifier with your request.

³ The absence of a validation message does not indicate that the information provided is without error.

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reporting/subpart/hh_determinedwaste.do

internet

The bottom text (Arrow #1) explains the different types of validation messages

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 select a group. And you are thinking, what does that mean. Well click on it.

The screenshot shows the EPA e-GGRT interface. At the top, there's a blue header with the title 'Subpart HH: Validation Messages (4)' and the EPA logo. Below the header, there's a navigation bar with 'HOME', 'FACILITY REGISTRATION', 'FACILITY MANAGEMENT', and 'DATA REPORTING'. The main content area displays a validation message for 'Schmeltz Landfill Management (2010)'. The message is titled 'Subpart HH: Municipal Solid Waste Landfills' and is under the 'Determined Waste Quantities' section. The message text reads: 'ANNUAL QUANTITIES OF WASTE DISPOSED AND WASTE TYPES. Use this page to provide information about missing data and waste types for the annual quantity of waste disposed in 2010 (and any prior year in which waste quantities were determined according to the methods described by 98.343(a)(3)). For additional information about the data reported on this page, please use the e-GGRT Help link(s) provided.' Below the text, there are input fields for '2010 WASTE QUANTITY', a checkbox for '(check if true)', and a text input for 'Number of days substitute data was used to determine the 2010 waste quantity'. At the bottom, there are radio buttons for 'Bulk waste option', 'Modified bulk MSW option', and 'Waste composition option'. A green arrow points to the 'Modified bulk MSW option' radio button, and a text box next to it says 'Links back to the screen where the data is missing or the error occurred'. At the bottom of the form, there are buttons for 'Subpart Overview', 'CANCEL', and 'SAVE'.

And it takes you right to what it means. I did not click a group for my 2010 waste type. I can enter that information now and the message will disappear from my validation list.

Go through each validation message to make sure everything is complete and accurate. As noted previously, for data quality validation messages, 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.

Data Entry is Complete (1)



The screenshot shows the EPA e-GGRT web interface. At the top, there is a navigation bar with 'HOME', 'FACILITY REGISTRATION', 'FACILITY MANAGEMENT', and 'DATA REPORTING'. The user is logged in as 'Rachel Schmetz'. The main content area is titled 'HH-C Landfill 3 (2010)' and 'Subpart HH: Municipal Solid Waste Landfills'. A 'Subpart Overview' section provides an overview of reporting requirements. A table titled 'Reporting Information' lists various data entry sections, each with an 'OPEN' button. A green arrow points to the 'Facility Overview' button at the bottom left of the table.

Reporting Information	
Landfill Details	OPEN
Waste Disposal Information	OPEN
Annual Waste Type Details	OPEN
Active Aeration Information	OPEN
Methane Generation and Emissions for Landfills with LFG Collection Systems	OPEN
Estimated Waste Dep	OPEN

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You have completed entering all your data and checking all your validation messages. Now you are back at the Subpart Overview page. Just as noted on previous slides, you then click Facility Overview

Data Entry is Complete (2)



e-GGRT Greenhouse Gas Data Reporting
Select Facility - Facility or Supplier Overview

FACILITY OR SUPPLIER OVERVIEW
This page allows you to add the source and/or supplier categories for which your facility or supplier will be reporting, then to access those data reporting screens using the OPEN buttons.
After data reporting is complete, you can initiate the annual report review and submission process from this page by using the SUBMIT button (or RESUBMIT for subsequent submissions if needed).
Facility's GHG Reporting Method: Data upload via XML (Change)

1.050.000
CO₂e equivalent emissions (including biogenic) from source categories (metric tons)
0
Biogenic CO₂e emissions from source categories (metric tons)
0
CO₂e equivalent quantity from supplier categories (metric tons)
VIEW OHG DETAILS

REPORT DATA

2010 Reporting Source or Supplier Category	Validation Messages?	Subpart Reporting
Subpart A—General Information	None	OPEN
Subpart HH—Landfills	None	OPEN

ADD or REMOVE Subparts

If all subparts are completed and Validation Messages addressed to your satisfaction, you are ready to prepare and submit an Annual Report.

SUBMIT ANNUAL REPORT

Report	Uploaded File Name	Status	Sign Date	Submitted Date	View
2010 Annual Report v1		Ready for review			GENERATE / SUBMIT

FACILITIES NOT SUBMITTING AN ANNUAL REPORT
If this facility is not submitting an annual report this reporting year, please check the box below. For more information regarding legitimate reasons for not submitting a report to EPA, please use the e-GGRT Help links to the left.

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

Questions?



- e-GGRT Information & Help
 - <http://www.ccdsupport.com>
 - Email: GHGreporting@epa.gov
- GHG Reporting Rule Information & Help
 - <http://www.epa.gov/ghgreporting/reporters/index.html>
 - Email: GHGMRR@epa.gov
- Read more about XML Upload Option
 - http://www.epa.gov/ghgreporting/reporters/datasystem/e-ggrt_xml.html

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This last slide contains important websites at which 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 are two different email addresses – one for questions or help requests for e-GGRT specifically and another specific to technical questions about the GHG Reporting Rule itself.

This concludes the e-GGRT module for subpart HH.