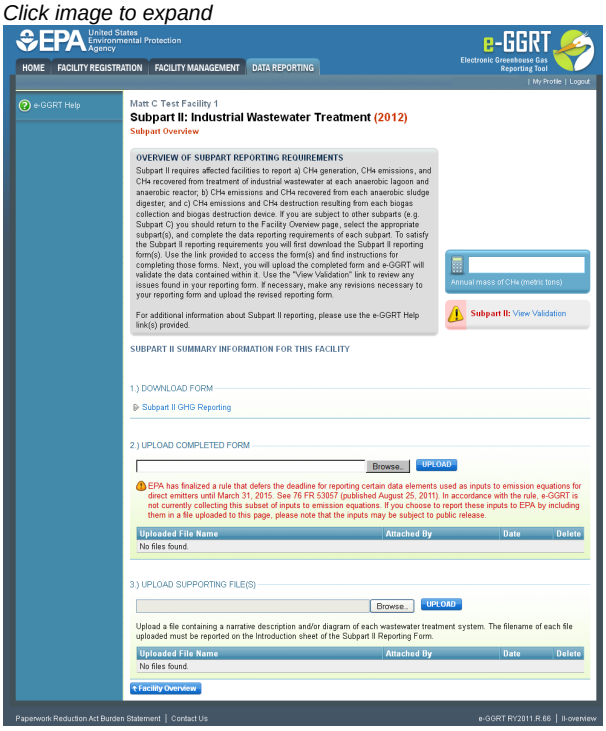
Subpart II - Industrial Wastewater Treatment

A printer-friendly version (pdf) (5 pp, 604KB) of GHG reporting instructions for this subpart

This page provides an overview of Subpart II reporting through e-GGRT. More detailed information regarding Subpart II and TT reporting can be found in the Subpart II and TT Training which is listed under Training Presentations on the Training and Testing Opportunities page.

Once you have added Subpart II to the list of subparts you will report and have clicked on the "Open" link next to Subpart II, you will then see the following screen:

Click image to expand



Subpart II Reporting Form

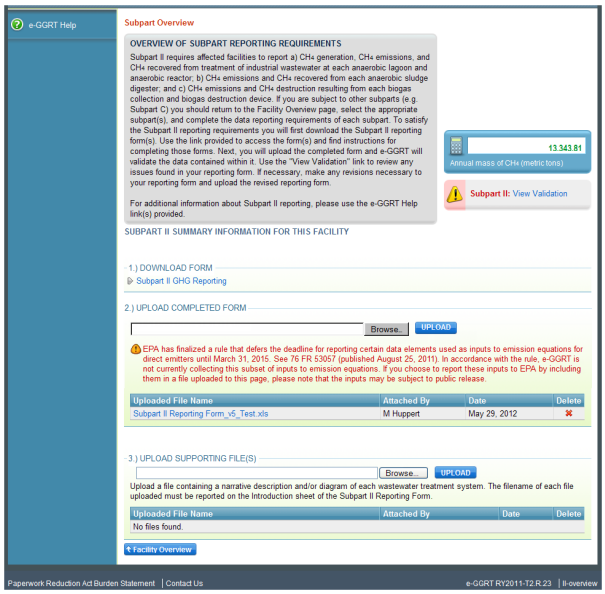
Please see Reporting Form Instructions instructions on downloading the blank reporting form and uploading the completed reporting form. You may also refer to the Optional Calculation Spreadsheet Instructions to download the Subpart II calculation spreadsheet.

- Subpart II - Introduction
- Subpart II - CH4 Generation
- Subpart II - Equation II-1 & II-2
- Subpart II - Biogas Recovery & Monitoring
- Subpart II - Equation II-4 Input
- Subpart II - Calculate GHG Emissions
- Subpart II - Inputs Whose Reporting Deadline Was Deferred Until 2013

Completed Subpart II Reporting Form

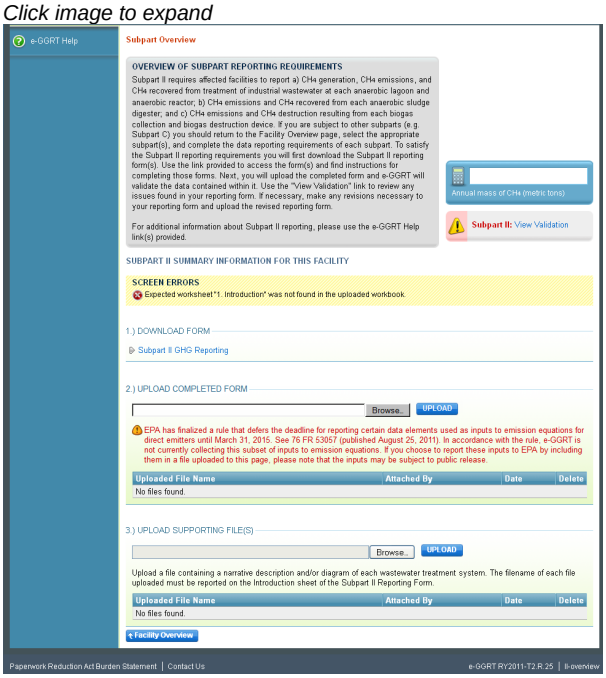
After you have successfully uploaded your completed Subpart II reporting form, the page will be updated to reflect the file you have uploaded. The Subpart II upload screen will show a summary of your reporting by chemical at the bottom of the page, as seen below.

Click image to expand



If you attempt to upload a file but your file is not accepted by e-GGRT, it is generally because your file has a fatal flaw or is missing essential data. The reason why the file was not acceptable is displayed as a screen error on the upload page. For an example of a screen error message, please click this link.

Click image to expand



During the upload, e-GGRT will generate a validation report which will list potential deficiencies or issues with your reporting form. Click on the "Subpart II: View Validation" link to review your validation report. An explanation of the validation report and the process for correcting validation issues prior to submission is presented in Reporting Form Validation

Once you have addressed the validation issues to the extent you believe necessary, and once you have completed any other applicable subparts, you must generate, review, certify, and submit your annual report as described in How to Submit an Annual Report

Subpart II - Introduction

Subpart II - Introduction

Please see Reporting Form Instructions instructions on downloading the blank reporting form and uploading the completed reporting form. You may also refer to Optional Calculation Spreadsheet Instructions to download the Subpart II calculation spreadsheet.

Fill out the general information table.

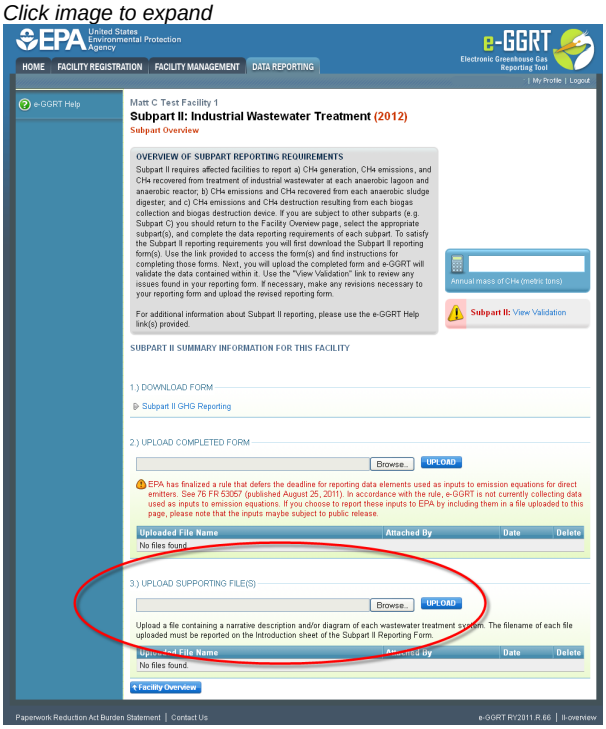
- GHGRP ID is required. *(the GHGRP ID on the reporting form must match the facility ID in e-GGRT)*
- Reporting Year is required. *(for RY2012 this must be reported as "2012")*

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

Facility Name:	
GHGRP ID:	
Reporting Period:	2012
Comments: (optional)	

2.) Attach the diagram and description of the wastewater treatment system at the facility.

Click image to expand



Fill out the anaerobic process information table

- The anaerobic process
- A unique name or ID
- The name of the attachment for the diagram and description
- If the process is an anaerobic lagoon
  - The depth of the lagoon
  - Indicate if biogas is recovered
  - Indicate if biogas destruction occurs on?site off?site or both

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

	Describe the Process					Describe Biogas Recovery	Describe Biogas Measurement					
	Unique Identifier - Enter Processes Alphabetically	Anaerobic Process	Indicate what diagram or document uploaded to e-GGRT (per number 2 above) pertains to this process	If you identified an anaerobic lagoon, what is the average depth of the lagoon (meters)?	Does the facility measure COD or BOD_5 concentration of the wastewater entering the anaerobic process? [§98.356(b)(1)]	Is biogas that is generated in the process recovered?	Is the biogas temperature incorporated into the monitoring equipment internal calculations? [§98.3(d)(4)]	Is the biogas pressure incorporated into the monitoring equipment internal calculations? [§98.3(d)(6)]	1. Is the moisture content for the biogas incorporated into the monitoring equipment internal calculations? [§98.356(d)(5)]	2. If the answer to item 1 is no, indicate whether the biogas flow is measured on a wet or dry basis. [§98.356(d)(5)]	3. If the answer to item 1 is no, indicate whether the CH_4 concentration in the biogas flow is measured on a wet or dry basis. [§98.356(d)(5)]	4. The weekly average moisture content of the biogas flow and CH_4 concentration is not measured on the same basis, and is not incorporated into the monitoring equipment internal calculations [§98.356(d)(5)]
1	Lagoon, Continuous	Anaerobic Shallow Lagoon			COD	Yes	Yes	No	Yes			No
2	Lagoon, Weekly	Anaerobic Deep Lagoon			BOD	Yes	Yes	No	No	Wet Basis	Dry Basis	Wet Flow/Dry CH4
3	Reactor, No recovery	Anaerobic Reactor			BOD	No						
4	Sludge Offsite	Anaerobic Sludge Digester				Yes			No	Dry Basis	Wet Basis	Dry Flow/Wet CH4
5												
6												
7												

Subpart II - CH4 Generation

Subpart II - CH_4 Generation

Please see Reporting Form Instructions instructions on downloading the blank reporting form and uploading the completed reporting form.
You may also refer to Optional Calculation Spreadsheet Instructions to download the Subpart II calculation spreadsheet.

Fill out the anaerobic treatment process information table.

1. Complete one table for each anaerobic reactor, deep lagoon, and shallow lagoon identified on tab 1 (Introduction)
2. Select the anaerobic process from the list
3. Select a week from the list (1 through 52)
4. Enter the average weekly COD or BOD_5 concentration of the wastewater entering the anaerobic treatment process for each week that the anaerobic process was operated
5. Indicate if any missing data procedures were used to determine the average concentration
6. Weekly volume of wastewater entering the anaerobic treatment process for each week
7. Indicate if any missing data procedure wereused to determine the weekly volume of wastewater
8. Use the drop-down menu to indicate whether you would like to report the calculated value (displayed in column to the left of this question), or an alternative value (to be entered in column to the right of this question) for B_O. Initially, calculated values are selected for reporting by default.
9. Use the drop-down menu to indicate whether you would like to report the calculated value (displayed in column to the left of this question), or an alternative value (to be entered in column to the right of this question) for MCF, calculated values are selected for reporting by default.

1.) Complete one table for each anaerobic reactor, deep lagoon, and shallow lagoon identified on tab 1 (Introduction)

	Unique Identifier for Process 1	Anaerobic Process	Week	Does the facility measure COD or BOD_5 concentration of the wastewater entering the anaerobic process? [§98.356(b)(1)]	Weekly average COD or BOD_5 concentration of the wastewater entering the anaerobic treatment process for each week that the anaerobic process was operated (kg/m^3) [§98.356(b)(1)]	Indicate if a missing data procedure was used to determine the weekly average COD or BOD_5 concentration [§98.3(c)(8)]	Weekly volume of wastewater entering the anaerobic treatment process for each week (m^3) [§98.356(b)(2)]	Indicate if a missing data procedure was used to determine the weekly volume of wastewater [§98.3(c)(8)]	Confirm the CH_4 production potential (B_O) [§98.356(b)(3)]	What B_O value do you want to report to EPA? (Calculated result initially selected by default)	CH_4 production potential (B_O) [§98.356(b)(3)] -------- User Override	Confirm the Methane Conversion Factor (MCF). [§98.356(b)(4)]	What MCF value do you want to report to EPA? (Calculated result initially selected by default)	Methane Conversion Factor Value (MCF) [§98.356(b)(4)] -------- User Override	If COD is measured, apply Equation II-1: CH_4G_n = Annual mass CH4 generated from the anaerobic wastewater treatment process (metric tons CH_4)	If BOD_5 is measured, apply Equation II-2: CH_4G_n = Annual mass CH4 generated from the anaerobic wastewater treatment process (metric tons CH_4)
	Lagoon, Continuous	Anaerobic Shallow Lagoon													0	0
1	Lagoon, Continuous	Anaerobic Shallow Lagoon		COD					0.25	Use the value provided		0.2	Use the value provided		0	N/A
2	Lagoon, Continuous	Anaerobic Shallow Lagoon		COD					0.25	Use the value provided		0.2	Use the value provided		0	N/A
3	Lagoon, Continuous	Anaerobic Shallow Lagoon		COD					0.25	Use the value provided		0.2	Use the value provided		0	N/A
4	Lagoon, Continuous	Anaerobic Shallow Lagoon		COD					0.25	Use the value provided		0.2	Use the value provided		0	N/A
5	Lagoon, Continuous	Anaerobic Shallow Lagoon		COD					0.25	Use the value provided		0.2	Use the value provided		0	N/A
6	Lagoon, Continuous	Anaerobic Shallow Lagoon		COD					0.25	Use the value provided		0.2	Use the value provided		0	N/A
7	Lagoon, Continuous	Anaerobic Shallow Lagoon		COD					0.25	Use the value provided		0.2	Use the value provided		0	N/A
8	Lagoon, Continuous	Anaerobic Shallow Lagoon		COD					0.25	Use the value provided		0.2	Use the value provided		0	N/A

Subpart II - Equation II-1 & II-2

Subpart II - Equation II-1 & II-2

Please see Reporting Form Instructions instructions on downloading the blank reporting form and uploading the completed reporting form.
You may also refer to Optional Calculation Spreadsheet Instructions to download the Subpart II calculation spreadsheet.

Complete the table for each anaerobic reactor, deep lagoon, and shallow lagoon process identified on tab 1 (Introduction)

1. Confirm the Unique Identifier
2. Confirm the Anaerobic Process
3. Confirm the Calculated Result of Equation II-1 or II-2
4. Use the drop-down menu to indicate whether you would like to report the calculated value (displayed in column to the left), or an alternative value (to be entered in column to the right). Initially, calculated values are selected for reporting by default.
5. If you would like to override the calculated result and report an alternative value, select "Enter my own result (value will be rounded)" in the column to the left and enter your override value in this column.
6. The reported value will appear in the next column.

1.) Complete the table for each anaerobic reactor, deep lagoon, and shallow lagoon process identified on tab 1 (Introduction)

	Unique Identifier	Anaerobic Process	CH_4G_n = Annual mass CH4 generated from the anaerobic wastewater treatment process (metric tons CH_4) -------- Calculated Result of Equation II-1 or II-2	What result do you want to report to EPA? (Calculated result initially selected by default)	CH_4G_n = Annual mass CH4 generated from the anaerobic wastewater treatment process (metric tons CH_4) --------	CH_4G_n = Annual mass CH4 generated from the anaerobic wastewater treatment process (metric tons CH_4) -------- Reported Value
1	Reactor, No recovery	Anaerobic Reactor	0	Enter my own result (value will be		0
2	Lagoon, Weekly	Anaerobic Deep Lagoon	0	Use the calculated result		0
3	0		0	Use the calculated result		0
4	0		0	Use the calculated result		0
5	0		0	Use the calculated result		0
6	0		0	Use the calculated result		0
7	0		0	Use the calculated result		0
8	0		0	Use the calculated result		0
9	0		0	Use the calculated result		0
10	0		0	Use the calculated result		0

Subpart II - Biogas Recovery & Monitoring

Subpart II - Biogas Recovery & Monitoring

Please see Reporting Form Instructions instructions on downloading the blank reporting form and uploading the completed reporting form.
You may also refer to Optional Calculation Spreadsheet Instructions to download the Subpart II calculation spreadsheet.

Complete one table for each anaerobic process unit identified on tab 1 (Introduction) that have biogas recovered.

1. Select a Unique Identifier for the process from the list
2. Confirm the anaerobic process shown in the next column
3. Indicate Yes or No for whether the facility conducts weekly monitoring of the CH_4 concentration in the biogas collected for destruction in the anaerobic process
4. Select the week from the list (1 through 52)
5. For continuous monitoring, enter the weekly volumetric biogas flow for each week that biogas is collected for destruction
6. Indicate if a missing data procedure was used to determine the volumetric biogas flow for a week that biogas was collected for destruction
7. For continuous monitoring, weekly average CH_4 concentration for each week that biogas is collected for destruction
8. Indicate if a missing data procedure was used to determine the weekly average CH_4 concentration for a week that biogas was collected for destruction
9. Confirm the pre-filled response in the next column for whether the biogas temperature is incorporated into the monitoring equipment internal calculations (from Tab 1. Introduction)
10. If biogas temperature is not incorporated into the monitoring equipment, provide the weekly average biogas temperature for each week at which flow is measured for biogas collected for destruction
11. Confirm the pre-filled response in the next column for whether the biogas pressure is incorporated into the monitoring equipment internal calculations (from Tab 1. Introduction)
12. If biogas pressure is not incorporated into the monitoring equipment, provide the weekly average biogas pressure for each week at which flow is measured for biogas collected for destruction
13. Confirm the pre-filled element in the final column regarding weekly average moisture content and CH_4 concentration (from Tab 1. Introduction)

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

	Unique Identifier for Process 1 Recovering Biogas	Anaerobic Process	Does the facility conduct weekly monitoring of the CH_4 concentration in the biogas collected for destruction in the anaerobic process?	Week	For continous monitoring, weekly volumetric biogas flow for each week that biogas is collected for destruction (acf) [§98.356(d\)(2)]	Indicate if a missing data procedure was used to determine the volumetric biogas flow for a week that biogas was collected for destruction [§98.3(c)(8)]	For continous monitoring, weekly average CH_4 concentration for each week that biogas is collected for destruction (%) [§98.356(d)(3)]	Indicate if a missing data procedure was used to determine the weekly average CH_4 concentration for a week that biogas was collected for destruction [§98.3(c)(8)]	Is the biogas temperature incorporated into the monitoring equipment internal calculations? [§98.3(d)(4)]	If biogas temperature is not incorporated into the monitoring equipment, provide the weekly average biogas temperature for each week at which flow is measured for biogas collected for destruction (^0R) [§98.356(d)(4)]	Is the biogas pressure incorporated into the monitoring equipment internal calculations? [§98.3(d)(6)]	If biogas pressure is not incorporated into the monitoring equipment, provide the weekly average biogas pressure for each week at which flow is measured for biogas collected for destruction (atm) [§98.356(d)(6)]	The weekly average moisture content of the biogas flow and CH_4 concentration is not measured on the same basis, and is not incorporated into the monitoring equipment internal calculations [§98.356(d)(5)]	If moisture content for the biogas is not incorporated into the monitoring equipment and is not consistently measured on a wet or dry basis for both biogas flow and CH_4 concentration, provide the weekly average moisture content of the biogas flow for each week at which flow is measured for biogas collected for destruction (cubic feet water per cubic feet biogas) [§98.356(d)(5)]
1	Lagoon, Continuous	**Anaerobic Shallow Lagoon**	No						Yes		No			
2	Lagoon, Continuous	Anaerobic Shallow Lagoon	No						No		Yes			
3	Lagoon, Continuous	Anaerobic Shallow Lagoon	No						No		Yes			
4	Lagoon, Continuous	Anaerobic Shallow Lagoon	No						No		Yes			
5	Lagoon, Continuous	Anaerobic Shallow Lagoon	No						No		Yes			
6	Lagoon, Continuous	Anaerobic Shallow Lagoon	No						No		Yes			
7	Lagoon, Continuous	Anaerobic Shallow Lagoon	No						No		Yes			
8	Lagoon, Continuous	Anaerobic Shallow Lagoon	No						No		Yes			
9	Lagoon, Continuous	Anaerobic Shallow Lagoon	No						No		Yes			

Subpart II - Equation II-4 Input

Subpart II - Equation II-4 Input

Please see Reporting Form Instructions instructions on downloading the blank reporting form and uploading the completed reporting form.
You may also refer to Optional Calculation Spreadsheet Instructions to download the Subpart II calculation spreadsheet.

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

1. Select a Unique Identifier from the list
2. Confirm the pre-filled Anaerobic Process in the next column
3. Enter the annual quantity of CH_4 recovered from the anaerobic reactor, sludge digester, or lagoon in metric tons CH_4/yr, as calculated using Equation II-4
4. Use the drop-down menu to indicate whether you would like to report the calculated value (displayed in column to the left), or an alternative value (to be entered in column to the right). Initially, calculated values are selected for reporting by default.
5. If you would like to override the calculated result and report and alternative value, select "Enter my own result (value will be rounded)" in the previous column and enter your override value in this column
6. Confirm the pre-filled reported value in the final column

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

	Unique Identifier	Anaerobic Process	R_n = Annual quantity of CH_4 recovered from the anaerobic reactor, sludge digester, or lagoon (metric tons CH_4/yr) -------- Calculated Using Equation II-4	What result do you want to report to EPA? (Calculated result initially selected by default)	R_n = Annual quantity of CH_4 recovered from the anaerobic reactor, sludge digester, or lagoon (metric tons CH_4/yr) --------	R_n = Annual quantity of CH_4 recovered from the anaerobic reactor, sludge digester, or lagoon (metric tons CH_4/yr) -------- Reported Value
1				Use the calculated result		0
2				Use the calculated result		0
3				Use the calculated result		0
4				Use the calculated result		0
5				Use the calculated result		0
6				Use the calculated result		0
7				Use the calculated result		0
8				Use the calculated result		0
9				Use the calculated result		0
10				Use the calculated result		0

Subpart II - Calculate GHG Emissions

Subpart II - Calculate GHG Emissions

Please see Reporting Form Instructions instructions on downloading the blank reporting form and uploading the completed reporting form. You may also refer to Optional Calculation Spreadsheet Instructions to download the Subpart II calculation spreadsheet.

Complete the table for each anaerobic treatment process for which the facility does not recover biogas to calculate emissions according to Equation II-3

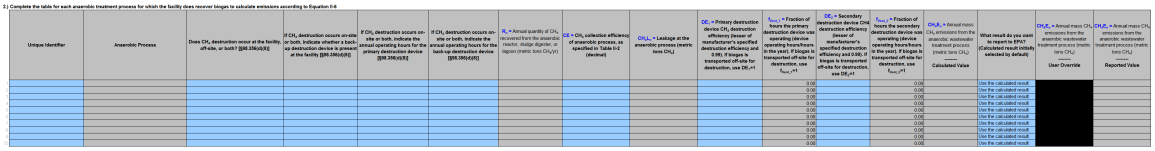
1. Select a Unique Identifier from the list
2. Confirm the pre-filled Anaerobic Process in the next column
3. Confirm the pre-filled annual mass CH_4 generated from the anaerobic wastewater treatment process
4. Confirm the pre-filled calculated annual mass CH_4 emissions from the anaerobic wastewater treatment process
5. Use the drop-down menu to indicate whether you would like to report the calculated value (displayed in column to the left), or an alternative value (to be entered in column to the right). Initially, calculated values are selected for reporting by default.
6. If you would like to override the calculated result and report and alternative value, select "Enter my own result (value will be rounded)" in the column to the left and enter your override value in this column.
7. Confirm the pre-filled annual mass CH_4 emissions from the anaerobic wastewater treatment process in the final column

1.) Complete the table for each anaerobic treatment process for which the facility does not recover biogas to calculate emissions according to Equation II-3

	Unique Identifier	Anaerobic Process	CH_4G_n = Annual mass CH_4 generated from the anaerobic wastewater treatment process (metric tons CH_4)	CH_4E_n = Annual mass CH_4 emissions from the anaerobic wastewater treatment process (metric tons CH_4) -------- Calculated Value	What result do you want to report to EPA? (Calculated result initially selected by default)	CH_4E_n = Annual mass CH_4 emissions from the anaerobic wastewater treatment process (metric tons CH_4) -------- User Override	CH_4E_n = Annual mass CH_4 emissions from the anaerobic wastewater treatment process (metric tons CH_4) -------- Reported Value
1			0	0	Use the calculated result rounded		0
2			0	0	Use the calculated result rounded		0
3			0	0	Use the calculated result rounded		0
4			0	0	Use the calculated result rounded		0
5			0	0	Use the calculated result rounded		0
6			0	0	Use the calculated result rounded		0
7			0	0	Use the calculated result rounded		0
8			0	0	Use the calculated result rounded		0
9			0	0	Use the calculated result rounded		0
10			0	0	Use the calculated result rounded		0

Complete the table for each anaerobic treatment process for which the facility does recover biogas to calculate emissions according to Equation II-6

1. Select a Unique Identifier from the list
2. Confirm the pre-filled Anaerobic Process in the next column
3. Select from the drop down list whether the CH_4 destruction occurs at the facility, off-site, or both
4. If CH_4 destruction occurs on-site or both, indicate whether a back-up destruction device is present at the facility
5. If CH_4 destruction occurs on-site or both, indicate the annual operating hours for the primary destruction device
6. If CH_4 destruction occurs on-site or both, indicate the annual operating hours for the back-up destruction device
7. Confirm the prefilled annual quantity of CH_4 recovered from the anaerobic reactor, sludge digester, or lagoon
8. Select from the drop down list the CH_4 collection efficiency of the anaerobic process, as specified in Table II-2
9. Confirm the pre-filled leakage at the anaerobic process
10. If biogas is transported off-site for destruction, enter the CH_4 destruction efficiency of the primary destruction device (lesser of manufacturer's specified destruction efficiency and 0.99)
11. Confirm the fraction of hours the primary destruction device was operating (device operating hours/hours in the year), if biogas is transported off-site for destruction
12. If biogas is transported off-site for destruction, enter the CH_4 destruction efficiency of the secondary destruction device (lesser of manufacturer's specified destruction efficiency and 0.99)
13. Confirm the fraction of hours the secondary destruction device was operating (device operating hours/hours in the year), if biogas is transported off-site for destruction
14. Confirm the pre-filled annual mass CH_4 emissions from the anaerobic wastewater treatment process
15. Use the drop-down menu to indicate whether you would like to report the calculated value (displayed in column to the left), or an alternative value (to be entered in column to the right). Initially, calculated values are selected for reporting by default
16. If you would like to override the calculated result and report and alternative value, select "Enter my own result (value will be rounded)" in the column to the left and enter your override value in this column
17. Confirm the pre-filled annual mass CH_4 emissions from the anaerobic wastewater treatment process in the final column



Subpart II - Inputs Whose Reporting Deadline Was Deferred Until 2013

In August 2011, EPA deferred the reporting deadline for inputs to equations until either March 31, 2013 or March 31, 2015 to allow time to fully evaluate the potential impact from the release of this data. EPA has evaluated the 2013 inputs following the process that was outlined in the final inputs deferral rule. EPA does not plan to take further action regarding the 2013 inputs. Therefore, inputs to equations whose reporting was deferred until 2013 must be reported to EPA by April 1, 2013, for reporting years 2010, 2011, and 2012 as applicable. For Subpart II, the defrred data elements which will now be collected includes:

Citation	Data Element
98.356(b)(1)	Weekly average COD or BOD_5 concentration of wastewater entering anaerobic wastewater treatment process
98.356(b)(2)	Volume of wastewater entering each anaerobic wastewater treatment process for each week the anaerobic process was operated
98.356(b)(3)(v)	For each anaerobic wastewater treatment process, maximum CH_4 production potential (B_0) used as an input to Equation II-1 or II-2
98.356(b)(4)	For each anaerobic wastewater treatment process, methane conversion factor (MCF) used as an input to Equation II-1 or II-2
98.356(b)(5)	For each anaerobic wastewater treatment process, annual mass of CH_4 generated (calculated using Equations II-1 or II-2)
98.356(d)(1)	Annual quantity of CH_4 recovered from the anaerobic process (calculated using Equation II-4 and used as an input in Equation II-5)
98.356(d)(7)	CH4 collection efficiency (CE) (used in Equation II-5)
98.356(d)(8)	Annual operating hours for the primary destruction device
98.356(d)(8)	Annual operating hours for the backup destruction device
98.356(d)(8)	Destruction efficiency of the primary destruction device
98.356(d)(8)	Destruction efficiency of the back-up destruction device

Summary of changes in e-GGRT (deployed in February 2013) to accommodate the above data elements

These changes are taken directly from the requirements and may be subject to change with revisions.

The newly collected data elements for RY2012 enable emissions calculations to be executed within e-GGRT for certain subpart equations. As a result, affected Optional Calculation Spreadsheets will become obsolete. The Optional Calculation Spreadsheets associated with the equations below will become obsolete for this subpart beginning RY2012:

- Equation II-1
- Equation II-2
- Equation II-3
- Equation II-4
- Equation II-5
- Equation II-6
- Equation II-7

Copies of these spreadsheets can be downloaded at the Calculation Spreadsheet Archive.

Please note that the revised reporting form which addresses the above data elements is not yet available for review.

98.356(b)(1), 98.356(b)(2), 98.356(b)(3)), and 98.356(b)(4):
e-GGRT will collect the following information for wastewater treatment processes including reactors, deep lagoons, or shallow lagoons (excludes anaerobic sludge digesters):

- An indication as to whether the facility measures COD or BOD_5 concentration of the wastewater entering the anaerobic process;
- The weekly average COD or BOD_5 concentration of the wastewater entering the anaerobic treatment process for each week that each anaerobic process was operated in units of kilograms/cubic meter (kg/m3).
- The volume of wastewater entering each anaerobic treatment process for each week that the anaerobic process was operated in cubic meters (m3).
- The maximum CH_4 production potential (B_0) in units of kilograms CH_4 per kilograms COD or BOD_5 (kg CH4/kg COD or BOD_5). e-GGRT

will provide a value based on the response to whether the facility measures COD or BOD5 concentration of the wastewater entering the anaerobic process, and ask the reporter to verify.

- The Methane Conversion Factor (MCF). e-GGRT will provide a value based on the identification of the anaerobic process and ask the reporter to verify.

A screenshot for this feature is not yet available

98.356(b)(5):
For each anaerobic wastewater treatment process for which the facility has identified that COD concentration is measured, e-GGRT will:

- Calculate the annual mass in metric tons of CH_4 generated according to Equation II-1, round the value according to e-GGRT rounding rules, and store the rounded and unrounded values in the database;
- Allow the facility to enter the annual mass in metric tons of CH_4 generated (output of Equation II-1);
- Store the facility-entered annual mass in metric tons of CH_4 generated (the output of Equation II-1), round the value according to e-GGRT rounding rules, and store the rounded and unrounded values in the database.

For each anaerobic wastewater treatment process for which the facility has identified that BOD_5 concentration is measured, e-GGRT will:

- Calculate the annual mass in metric tons of CH_4 generated according to Equation II-2, round the value according to e-GGRT rounding rules, and store the rounded and unrounded values in the database;
- Allow the facility to enter the annual mass in metric tons of CH_4 generated (output of Equation II-2);
- Store the facility entered annual mass in metric tons of CH_4 generated (the output of Equation II-2), round the value according to e-GGRT rounding rules and store the rounded and unrounded values in the database.

A screenshot for this feature is not yet available

98.356(d)(1):
For each anaerobic wastewater treatment process for which the facility has identified that some biogas is recovered, e-GGRT will:

- Calculate the annual quantity in metric tons of CH_4 recovered according to Equation II-4, round the value according to e-GGRT rounding rules, and store the rounded and unrounded values in the database.
- Allow the facility to enter the annual quantity in metric tons of CH_4 recovered (output of Equation II-4).
- Store the facility entered annual quantity in metric tons of CH_4 recovered (the output of Equation II-4), round the value according to e-GGRT rounding rules, and store the rounded and unrounded values in the database.
- Calculate the annual CH_4 emissions in metric tons according to Equation II-6, round the value according to e-GGRT rounding rules, and store the rounded and unrounded values in the database.

A screenshot for this feature is not yet available

98.356(d)(7):
For each anaerobic wastewater treatment process (reactor, deep lagoon, shallow lagoon, or sludge digester) for which the facility has identified that some biogas is recovered, e-GGRT will collect information regarding the CH_4 collection efficiency of the anaerobic process. e-GGRT will provide values from Table II-2, and ask the reporter to enter the appropriate value.

A screenshot for this feature is not yet available

98.356(d)(8):
For each anaerobic wastewater treatment process (reactor, deep lagoon, shallow lagoon, or sludge digester) for which the facility has identified that some biogas is recovered, e-GGRT will require the facility to identify whether CH_4 destruction occurs at the facility, off-site, or both using the radio buttons.

If the facility identifies that CH_4 destruction occurs at the facility, e-GGRT will require the facility to identify the following:

- An indication as to whether a back-up destruction device is present at the facility;
- The annual operating hours for the primary destruction device (this accounts for leap years);
- The annual operating hours for the back-up destruction device, if present (this accounts for leap years);
- The destruction efficiency as a percentage for the primary destruction device;
- The destruction efficiency as a percentage for the back-up destruction device, if present.

A screenshot for this feature is not yet available