



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

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

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You will see a number of e-GGRT screenshots throughout this webinar. These screenshots may differ slightly from the final version of e-GGRT that is made available for live GHG reporting later this year.

## Subpart H: Topical Overview



- Review – General e-GGRT 2011 Reporting Overview

<http://www.epa.gov/ghgreporting/reporters/training/index.html>

- Add Subpart H to your facility:
  - Entering non-CEMS data
  - Entering CEMS data
  - Reviewing Validation Messages
  - Submitting Subpart H Data to EPA

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This training session focuses on using e-GGRT web forms to report data for Subpart H. In this training we have four topics to cover:

The first covers the procedures for entering Subpart H specific data for cement kilns using the clinker based methodology.

The second will focus on entering subpart H specific data for cement kilns which monitor emissions using a continuous emissions monitoring system (CEMS).

Next we will review the e-GGRT validation messages under Subpart H.

Finally, we will then review the basic steps for submitting your data report to EPA.

Now let's turn to reviewing the web forms for Subpart H.

**Adding Subparts**

United States Environmental Protection Agency

**e-GGRT**  
Electronic Greenhouse Gas Reporting Tool

HOME FACILITY REGISTRATION FACILITY MANAGEMENT DATA REPORTING

Hello, Marcus Palmer | My Profile | Logout

**e-GGRT Help**

- How to add a subpart and report data
- General reporting information
- How to submit an annual report

H.Cement 1

**e-GGRT Greenhouse Gas Data Reporting (2011)**

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 entry via e-GGRT web-forms (Change)

**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.

**REPORT DATA**

2011 Reporting Source or Supplier Category	Validation Messages?	Subpart Reporting
Subpart A—General Information	None	<a href="#">OPEN</a>
Subpart C—General Stationary Fuel Combustion Sources	None	<a href="#">OPEN</a>
Subpart H—Cement Production	None	<a href="#">OPEN</a>

[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.

CO<sub>2</sub> equivalent emissions (excluding biogenic) from subparts C - HH (metric tons): 3,787,484.9

Biogenic CO<sub>2</sub> emissions from subparts C - HH (metric tons): 939,600.0

CO<sub>2</sub> equivalent quantity from supplier categories (metric tons): 0.0

[VIEW GHG DETAILS](#)

Once you have opened your facility through the data reporting tab, click the on the blue hyperlinked text from the facility overview page as shown to “ADD or REMOVE Subparts” so that you can add Subpart H – Cement Production to your facility.

The screenshot displays the EPA e-GGRT interface for subpart selection. The main heading is "Adding Subpart: Subpart Selection". The user is logged in as "Marcos Palmer". The page shows a list of subparts under the heading "FACILITY SUBPARTS D - GG". The subpart "H-Cement Production" is selected, indicated by a checked checkbox and a green arrow labeled "1". A "SAVE" button is visible at the bottom right. A yellow note box contains the text: "! Note: Removing (un-checking) a subpart will erase any data that has been entered for that subpart."

You will then be on the Subpart Selection page. For this training session, we are selecting the checkbox next to Subpart H subpart list.

If other subparts are applicable to your facility, such as subpart H this is where you would select those subparts.

Also note that if you remove or un-check a subpart on this page that you have already added, you will lose all data you have entered for that subpart.

To continue, you need to hit the green "SAVE" button at the bottom of the page to accept this selection as shown.

# Subpart H: Open New Subpart H

**FACILITY 7 (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)

**REPORT DATA**

2010 Reporting Source or Supplier Category	Validation Messages?	Subpart Reporting
Subpart A—General Information	View Messages	OPEN
Subpart C—General Stationary Fuel Combustion Sources	None	OPEN
Subpart H—Cement Production	View Messages	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

When you return to the “Facility or Supplier Overview” page, you should now see Subpart H listed in the REPORT DATA table as shown here in the third row.

Now that you have added Subpart H, you can click the blue “OPEN” button in the row with Subpart H – to begin entering data.

# Subpart H: Reporting Instructions (1)



On the next page, you will see a question mark in the left hand corner of the screen in the blue side bar along the web form. By clicking here, you can get additional help, or link to Reporting Instructions for Subpart H (complement and supplement this webinar).

## Subpart H: Reporting Instructions (2)



United States Environmental Protection Agency

e-GGRT  
Electronic Greenhouse Gas Reporting Tool

Home > ... > Web Forms Reporting Instructions > Subpart Reporting Instructions > Subpart H - Cement Production

**Subpart H - Cement Production**

A printer-friendly version (pdf) (25 pp, 7.101K) of GHS reporting instructions for this subpart

Please select a help topic from the list below:

- [Using e-GGRT to Prepare Your Subpart H Report](#)
  - [Subpart H Summary Information for this Facility](#)
  - [Subpart H Kiln Information for Kilns NOT Monitored by CEMS](#)
  - [Subpart H Kiln Information for Kilns Monitored by CEMS](#)
  - [Subpart H Emissions Information for Kilns NOT Monitored by CEMS](#)
  - [Subpart H Emissions Information for Kilns Monitored by CEMS](#)
- [Using Subpart H Calculation Spreadsheets](#)
  - [Subpart H Rule Guidance](#)
  - [Subpart H Rule Language \(eCFR\)](#)

Additional Resources:

- [Part 98 Terms and Definitions](#)
- [Frequently Asked Questions \(FAQs\)](#)
- [Webinar Slides](#)

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This webinar is designed to be a tutorial. In preparing to use the e-GGRT forms to report, you could begin by reviewing this webinar and then just walk through the Subpart H Reporting Instructions.

You should also refer to the e-GGRT Reporting Instructions if you have a specific questions about how to enter information as well.

This slide is what the Reporting Instructions screen looks like for Subpart H. You can choose one of the three main topics:

- Using e-GGRT to Prepare Your Subpart H Report;
- Using Subpart H Calculation Spreadsheets; and
- Subpart H Rule Guidance;





You will now be directed to the Subpart H overview page.

The overview page is an important page you that will be returning to after entering required data in different forms related to Subpart H. The text circled at the top of the page as shown will change as you navigate within the Subpart H reporting module – so this is a good way to check and understand which form you are on.

The Subpart H has there are 3 main sections where you will need to enter Subpart H specific data.

The first section, which should be completed as a second step, is the Subpart H summary information section for this facility. Here you need to enter the emissions from all kilns not monitored by a CEMS, the total number of kilns for the facility, and total number of operating kilns for the reporting year.

The second section is the Cement Kiln Summary table for kilns not monitored by a CEMS. Here you will enter information required for each kiln, such as the kiln identification information, information on methods to determine clinker production quantity, methods to determine calcined content of carbonates, and raw material inputs.

The last section, under CEMENT KILN SUMMARY (Cement kilns monitored by CEMS), is where you will enter production data for kilns that are monitored by a CEMS.

You can enter data in any order. For the purpose of today's demonstration – but this is how we recommend entering information:

- we are first going to enter kiln information for cement kilns not monitored by a CEMS.
- then we are going to enter the facility summary information.

The screenshot shows the EPA e-GGRT interface for 'Subpart H: Add a Cement Kiln'. The page is titled 'Concrete Products (2010) Subpart H: Cement Production'. It features a navigation menu with 'HOME', 'FACILITY REGISTRATION', 'FACILITY MANAGEMENT', and 'DATA REPORTING'. The main content area includes an 'Overview of Subpart Reporting Requirements' section, a 'Subpart H Summary Information for this Facility' table, and two 'Cement Kiln Summary' tables. A green arrow labeled 'ADD' points to the 'ADD a Cement Kiln' hyperlink in the first 'Cement Kiln Summary' table. The EPA logo and 'e-GGRT Electronic Greenhouse Gas Reporting Tool' are visible at the top.

So let's start by adding information for a cement kiln at our example facility that is not monitored by a CEMS.

Under the "CEMENT KILN SUMMARY" header, select the "Add a Cement Kiln" hyperlink. This will take you to where you will enter emissions data that are determined by using the clinker based method provided in Subpart H of the rule.

The screenshot displays the EPA e-GGRT interface for 'Subpart H: Cement Production'. The main heading is 'Subpart H: Cement Production' with a sub-link 'Add/Edit a Cement Kiln'. Below this, a section titled 'CONTINUOUS EMISSIONS MONITORING SYSTEMS (CEMS)' provides instructions. The primary question is 'Is this cement kiln's emissions monitored using a CEMS?', with radio buttons for 'Yes' and 'No'. A green arrow points to the 'No' button, labeled 'SELECT'. Below the question are 'CANCEL' and 'SAVE' buttons, with another green arrow pointing to the 'SAVE' button, labeled 'SAVE'. The page footer includes 'Paperwork Reduction Act Burden Statement | Contact Us' and 'e-GGRT RY2010.RL40 | H(CEMS)'. The page number '11' is located at the bottom right of the screenshot area.

When you select Add a Cement Kiln – you will open the “Add/Edit a Cement Kiln>> CEMS” form

The form will ask you to identify whether the kiln is monitored by a CEMS or not. For kilns added under this summary table the question will default to “NO.” You do have the option to change your response. For this example, we are first entering a kiln not monitored by CEMS.

So let’s select “No” here and again “SAVE” this information to move on to the next form.

After you hit “SAVE” you will be directed to the Estimation Method Form for Raw Materials.

On this form select the method used to estimate Annual CO2 emissions from raw material consumption for each kiln.

You can estimate these emissions based on individual raw material consumption or based on the amount of raw kiln feed consumed annually.

For this example, this kiln is using a method “based on consumption of individual raw materials” so that is what we will select as shown by the arrow labeled number 1.

Again be sure to hit the green “SAVE” button to accept your selection and move on to the next form as shown by arrow 2.

The screenshot shows the 'Subpart H: Add/Edit Kiln Information' form in the EPA e-GGRT system. The form is titled 'H-Cement 1 (2010) Subpart H: Cement Production'. It is divided into five main sections, each indicated by a green arrow and a number on the left side of the form:

- UNIT INFORMATION:** This section includes a 'Name or ID' field (40 characters maximum), a 'Description (optional)' field, and a 'Type' dropdown menu set to 'Cement Kiln'.
- RAW MATERIAL:** This section features a table with a header 'Name' and a 'Delete' button. Below the table is a '+ADD a Raw Material' button.
- CONTINUOUS EMISSIONS MONITORING:** This section contains the question 'Is this cement kiln's emissions monitored using a CEMS?' with radio button options for 'Yes' and 'No'.
- METHOD FOR ESTIMATING ANNUAL CO<sub>2</sub>:** This section contains the question 'Annual CO<sub>2</sub> emissions for this kiln from raw material consumption...' with radio button options for 'based on consumption of individual raw materials' and 'based on the amount of raw kiln feed consumed annually'.
- Navigation:** At the bottom of the form are two buttons: 'Back to Overview' and 'SAVE'.

Next you will proceed to the “Add/Edit a Cement Kiln” information form. Here this form has 5 main sections.

In the first section, add the kiln identification number and/or identification name.

In the second section, if you selected a method for estimating annual raw material CO<sub>2</sub> emissions using consumption of individual raw materials, select “ADD a Raw Material” to list the materials on this page - this is consistent with equation H-5 in the rule. This section will only appear if you selected this method on the previous form.

In the third section, confirm that the unit is not monitored by CEMS. If you choose to make the switch to CEMS at this point, you still have the option to choose “Yes” and update your answer to this question. You will lose any previously entered information on raw materials.

Finally, on this page, confirm the method for estimating annual CO<sub>2</sub> emissions for raw material consumption at this kiln. This answer should match your previous answer, but if that was incorrect, you have the opportunity to update you answer here.

The screenshot displays the 'Subpart H: Add Raw Material' form within the EPA's e-GGRT system. The page title is 'Subpart H: Add Raw Material'. The user is logged in as 'Hello, Marcus Palmer'. The form is for 'H-Cement 1 (2010)' and is titled 'Subpart H: Cement Production'. A green arrow with the number '2' points to the 'ADD a Raw Material' button in the 'RAW MATERIAL' section. The form includes sections for 'CEMENT KILN INFORMATION', 'UNIT INFORMATION', 'RAW MATERIAL', 'CONTINUOUS EMISSIONS MONITORING', and 'METHOD FOR ESTIMATING ANNUAL CO<sub>2</sub>'. The 'RAW MATERIAL' section contains a table with a header 'Name' and a 'Delete' button. The 'CONTINUOUS EMISSIONS MONITORING' section has radio buttons for 'Yes' and 'No'. The 'METHOD FOR ESTIMATING ANNUAL CO<sub>2</sub>' section has radio buttons for 'based on consumption of individual raw materials' and 'based on the amount of raw kiln feed consumed annually'. The page number '14' is visible in the bottom right corner.

Once again, as a reminder. The 2<sup>nd</sup> step only applies to kilns that calculate raw material CO<sub>2</sub> emissions using the consumption of each raw material individually.

Since we indicated that we are using this method for this kiln, we need to add information about each material to complete data entry for this form.

Let's select the blue hyperlink "ADD a Raw Material" to enter this information as shown by the arrow number 2.

Subpart H: Enter Raw Material Information

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HOME FACILITY REGISTRATION FACILITY MANAGEMENT DATA REPORTING

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e-GGRT Help

Using e-GGRT for Subpart H reporting

H-Cement 1 (2010)

**Subpart H: Cement Production**

Subpart Overview > Add/Edit a Cement Kiln > Raw Material

**RAW MATERIAL INFORMATION**

Subpart H requires a facility to identify each raw material consumed in those kilns where CO<sub>2</sub> emissions from raw materials are to be estimated based on consumption of individual raw materials. For additional information about the data collected on this page, please use the e-GGRT Help link(s) provided. \* denotes a required field

RAW MATERIAL

Name or Description\* clay


CANCEL SAVE

Paperwork Reduction Act Burden Statement | Contact Us

e-GGRT RY2010 R.42 | H(material)

After clicking on ADD a raw material, you will be directed to this form to enter the name for each raw material.

Once you enter the name, remember to hit the green "SAVE" button and you will be directed back to the previous kiln information form.

Subpart H: Save Non-CEMS Unit


**CEMENT KILN INFORMATION**  
Subpart H requires a facility to uniquely identify each cement kiln and provide the information described below for each. For additional information about adding and editing a cement kiln, please use the e-GORT Help link(s) provided. \* denotes a required field

**UNIT INFORMATION**

Name or ID\*  (40 characters maximum)

Description (optional)

Type: Cement Kiln

**RAW MATERIAL**

Name	Delete
<input type="checkbox"/> Fly ash	✖
<input type="checkbox"/> Limestone	✖
<input type="checkbox"/> clay	✖

[+ ADD a Raw Material](#)

**CONTINUOUS EMISSIONS MONITORING**

Is this cement kiln's emissions monitored using a CEMS?  Yes  No

**METHOD FOR ESTIMATING ANNUAL CO<sub>2</sub>**


Annual CO<sub>2</sub> emissions for this kiln from raw material consumption...  based on consumption of individual raw materials  based on the amount of raw kiln feed consumed annually


[← Back to Overview](#)
[SAVE](#)

Once you have completed entering this kiln's information, click the green "SAVE" button to accept your entries and selections and hit the Blue "BACK to Overview" to return to the Subpart H overview page.



# Subpart H: Opening a Unit





United States Environmental Protection Agency

HOME FACILITY REGISTRATION FACILITY MANAGEMENT DATA REPORTING



Electronic Greenhouse Gas Reporting Tool

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e-GORT Help

Using e-GORT for Subpart H reporting

### H-Cement 1 (2010)

## Subpart H: Cement Production

**Subpart Overview**

**OVERVIEW OF SUBPART REPORTING REQUIREMENTS**

Subpart H requires affected facilities to report carbon dioxide (CO<sub>2</sub>) from each cement kiln. First, use this page to identify each cement kiln and then enter Greenhouse gas (GHG) data required by Subpart H for each cement kiln and for your facility. For additional information about Subpart H reporting, please use the e-GORT Help link(s) provided.

EPA has proposed to defer collection of 2010 data elements used as inputs to emission equations for direct reporters. (See 75 FR 81302, published Dec. 27, 2010). E-GORT currently reflects this proposal, and EPA will make any adjustments necessary to reflect the final rule.

**Subpart H: View Validation**

**SUBPART H SUMMARY INFORMATION FOR THIS FACILITY**

# of Cement Kilns	# of Operating Cement Kilns	CO <sub>2</sub> (metric tons)	
			<a href="#">OPEN</a>

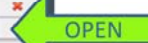
**CEMENT KILN SUMMARY**

Name/ID	Status*		Delete
002	Complete	<a href="#">OPEN</a>	✖
003	Complete	<a href="#">OPEN</a>	✖
004	Incomplete	<a href="#">OPEN</a>	✖
005	Incomplete	<a href="#">OPEN</a>	✖

[ADD a Cement Kiln](#)

**CEMENT KILN SUMMARY (Cement kilns monitored by CEMS)**

Name/ID	Status*		Delete
No units have been added.			



**OPEN**

When you return to the Subpart H overview page, you should see the kilns you have identified in the cement kiln summary table.

As you can see the “Status” field is still “incomplete” for Kilns 4 and 5 because we have not entered all information for these 2 kilns, including the annual CO<sub>2</sub> emissions.

Click the blue “OPEN” button for “Kiln 005” to enter the other remaining required data for this kiln.

**Subpart H: Annual Kiln Information and use of Missing Data procedures**

**Subpart H: Cement Production (2011)**

GHG DATA AND ASSOCIATED INFORMATION

Use this page to enter the GHG data required by Subpart H. Please enter the annual, quarterly, and monthly information shown below. For additional information about the data columns on this page please use the e-GGRT Help link(s) provided.

**Annual Information**

Quarterly Information

Monthly Information

**CLAY**

Number of times missing data procedures were used to determine:

Monthly quantity of raw material consumed: 1 (months)

Annual organic carbon content of raw material feed: 0

**FLY ASH**

Number of times missing data procedures were used to determine:

Monthly quantity of raw material consumed: 3 (months)

Annual organic carbon content of raw material feed: 1

**LIMESTONE**

Number of times missing data procedures were used to determine:

Monthly quantity of raw material consumed: 0 (months)

Annual organic carbon content of raw material feed: 0

FINISHED CANCEL **QUARTERLY INFO**

When you click the blue “OPEN” - button you will be directed to the GHG info form for the selected kiln.

The FORM name for this screen shows you which kiln you are entering information for.

You will now be directed to enter information required by the rule based on the frequency with which it is to be reported, beginning with annual information.

Emissions from raw material consumption are calculated using annual quantities based on monthly measurements. Here you will indicate whether missing data procedures were applied for any of the monthly values used to calculate the annual consumption quantity. On this form you will also indicate whether the annual organic carbon content is based on one or more substitute data values.

Once you have entered the annual information, select the blue “quarterly information” button to continue and enter quarterly information.

**Subpart H: Quarterly CKD Information**

H-Cement 1 (2010)  
**Subpart H: Cement Production**  
 Subpart Overview » GHG Info » 005

**GHG DATA AND ASSOCIATED INFORMATION**  
 Use this page to enter the GHG data required by Subpart H. Please enter the annual, quarterly, and monthly information shown below. For additional information about the data collected on this page, please use the e-GGRT Help link(s) provided.

Annual Information  
 **Quarterly Information**  
 Monthly Information

**QUARTER 1 CEMENT KILN DUST NOT RECYCLED TO KILN**

A missing data procedure was used to determine the quantity of cement kiln dust (CKD) not recycled to the kiln  (check if true)

A missing data procedure was used to determine the fraction of non-calcined CaO in CKD not recycled to the kiln  (check if true)

Method used to determine the fraction of non-calcined CaO in CKD not recycled to the kiln: Other  Make all quarters same

Specify Method used to determine the fraction of non-calcined CaO in CKD not recycled to the kiln: Chemical Analysis

A missing data procedure was used to determine the fraction of non-calcined MgO in CKD not recycled to the kiln  (check if true)

Method used to determine the fraction of non-calcined MgO in CKD not recycled to the kiln: Default of 0.0  Make all quarters same

On the Quarterly Information form, again we are collecting information on methods used and whether missing data procedures were applied to determine any of the cement kiln dust (CKD) information reported under subpart H.

This includes where missing data procedures were applied to estimate

- Quantity of CKD not recycled to the kiln or
- Fraction of non-calcined CaO and MgO in CKD not recycled to the kiln

Also on this page you should indicate the method that is used to determine the fraction of non-calcined CaO and MgO in CKD, this includes choosing the default provided in the rule.

Once you have entered information for all Quarters, select the blue “Monthly INFO” button at the bottom of this form to continue to the next form to enter information that is reported on a monthly basis. If needed you can also go back and modify annual information that you entered on the previous form.

The screenshot shows the 'Subpart H: Monthly Information' form for H-Cement 1 (2010). The form is titled 'Subpart H: Cement Production' and includes sections for GHG data and associated information, kiln-specific clinker factors, and methods used to determine clinker production parameters for January. A green arrow points to the 'FINISH' button at the bottom right.

**Subpart H: Monthly Information**

H-Cement 1 (2010)  
**Subpart H: Cement Production**  
 Subpart Overview | GHG Info | 005

**GHG DATA AND ASSOCIATED INFORMATION**  
 Use this page to enter the GHG data required by Subpart H. Please enter the annual, quarterly, and monthly information shown below. For additional information about the data collected on this page, please use the e-GGRT Help link(s) provided.

Annual Information  
 Quarterly Information  
 **Monthly Information**

Monthly kiln-specific clinker factors were used to determine monthly clinker production  (check if true)

JANUARY

Method used to determine the month's clinker production: Kiln specific feed-to-clinker ratio  Make all months same

Method used to determine the fraction of non-calcined CaO in clinker: Chemical Analysis  Make all months same

Method used to determine the fraction of non-calcined MgO in clinker: Default 0.0  Make all months same

A missing data procedure was used to determine the following for January:

Clinker production  
 Fraction of total CaO in clinker  
 Fraction of total MgO in clinker  
 Fraction of non-calcined CaO in clinker  
 Fraction of non-calcined MgO in clinker

**FINISH**

On the Monthly Information Form, again you will be reporting on methods used and if missing data procedures were applied to determine any of the clinker information reported under subpart H.

For each month identify the methods used to determine:

- Clinker production
- Non calcined fractions of CaO and MgO in clinker

If you have any questions about the information to be reported, review the monitoring and qa/qc sections of the rule to better understand applicable methods.

You will need to confirm use of missing data procedures for each month. This screen shows only entry of information for January.

Note, once again, if the methods for determining these parameters are consistent across all months you have the option to select "Make all months same" next to the method entry field and simplify data entry.

Once you have entered information for all months, select the blue "FINISHED" button at the bottom of the form to return to the Subpart H overview page.

(If needed, you can also go back and update any of the "QUARTERLY" information by selecting the blue "QUARTERLY INFO" button.)

## Subpart H: Return to Overview Page with completed kiln information



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**e-GGRT** Electronic Greenhouse Gas Reporting Tool

HOME FACILITY REGISTRATION FACILITY MANAGEMENT DATA REPORTING

H-Cement 1 (2010)  
**Subpart H: Cement Production**  
Subpart Overview

**OVERVIEW OF SUBPART REPORTING REQUIREMENTS**  
Subpart H requires affected facilities to report carbon dioxide (CO<sub>2</sub>) from each cement kiln. First, use this page to identify each cement kiln and then enter Greenhouse gas (GHG) data required by Subpart H for each cement kiln and for your facility. For additional information about Subpart H reporting, please use the e-GGRT Help (link) provided.

EPA has proposed to defer collection of 2010 data elements used as inputs to emission equations for direct emissions (see 76 FR 51260, published Dec. 27, 2010). e-GGRT currently reflects this proposal, and EPA will make any adjustments necessary to reflect the final rule.

**Subpart H: View Validation**

SUBPART H SUMMARY INFORMATION FOR THIS FACILITY

# of Cement Kilns	# of Operating Cement Kilns	CO <sub>2</sub> (metric tons)
		<a href="#">OPEN</a>

**CEMENT KILN SUMMARY**

NameID	Status*	<a href="#">OPEN</a>	<a href="#">X</a>
002	Complete	<a href="#">OPEN</a>	<a href="#">X</a>
003	Complete	<a href="#">OPEN</a>	<a href="#">X</a>
004	Incomplete	<a href="#">OPEN</a>	<a href="#">X</a>
005	Complete	<a href="#">OPEN</a>	<a href="#">X</a>

[CHECK](#) →

[ADD a Cement Kiln](#)

**CEMENT KILN SUMMARY (Cement kilns monitored by CEMS)**

NameID	Status*	Delete
No units have been added.		

[ADD a Cement Kiln Monitored by CEMS](#)

[Facility Overview](#)

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When you return to the subpart overview page, you will see the screen now indicates that data entry for Kiln 005 is complete, which is good.

The screenshot displays the EPA e-GGRT interface for Subpart H: Cement Production. The page is titled "Subpart H: View Validation Messages" and features a navigation bar with options: HOME, FACILITY REGISTRATION, FACILITY MANAGEMENT, and DATA REPORTING. The main content area includes an "e-GGRT Help" sidebar, an overview of reporting requirements, and a "Subpart H: View Validation" button highlighted with a green arrow labeled "CHECK". The page also contains a "SUBPART H SUMMARY INFORMATION FOR THIS FACILITY" table and two "CEMENT KILN SUMMARY" tables. The EPA logo and e-GGRT logo are visible in the top right corner.

You should also periodically review the Subpart H validation messages. In the upper right corner of the screen is a Subpart H Validation box.

When you have completed all required data entry and there are no critical data entry errors this box will turn green and read “no validation messages.”

In this case the validation box is red, indicating that there is information missing or there are errors.

You can click on the “view validation” hyperlink pointed out by the arrow to open the Validation Report page and identify more specifically where errors may exist.

## Subpart H: Check Validation (continued)

The screenshot shows the EPA e-GGRT interface for Subpart H validation. The page title is "Subpart H: Cement Production" and the report is for "H-Cement 1 (2010)". The report is divided into three sections:

- 1** **FACILITY-LEVEL VALIDATION MESSAGES**: A table with columns "Validation Type", "ID", and "Message". It lists three data completeness messages (H01, H03, H06) related to annual carbon dioxide emissions, number of kilns, and number of operating kilns.
- 2** **CML-LEVEL VALIDATION MESSAGES**: A table with columns "Validation Type", "ID", "CML Name", and "Message". It shows "No CML level validation messages".
- 3** **EQUATION-LEVEL VALIDATION MESSAGES**: A table with columns "Validation Type", "ID", "Raw Material", and "Message". It lists several data quality and completeness messages (H02, H04, H04, H04, H06, H06) related to annual cement production, monthly raw kiln feed consumption, and organic carbon content.

The "Data Quality" message for ID H02 is circled in green, indicating a data quality issue where the annual cement production quantity is outside the EPA estimated range.

We are now looking at the Subpart H Validation Report. There are many validation messages that could be generated based on the data you have entered for subpart H.

This is not a complete list, but it shows some of the messages that you may come across. In this example, the messages are grouped with 3 categories.

The first category provides facility-level validation messages. Currently this category is showing all those data elements as incomplete because we have not yet entered facility-level information.

The second category provides CEMS monitoring location (CML) validation messages. We have not added a CML yet, and therefore have no CML validation messages.

The third category provides the equation-level validation messages. This screen shows a data quality issue for Kiln 2 – indicating that the cement production quantity that we entered is outside of the an EPA estimate range. Users who see this message should review the information entered for Kiln 2 cement production and verify that the number is correct and there are no errors or typos. If upon review, you believe the data to be correct, then you should still submit that data.

In this third category section, we also see a data completion message. The message indicates that the Kiln information for Kiln 4 is incomplete.

Notice that, for your convenience, each message text is a hyperlink to the e-GGRT page where the warning was generated. Now let's return to the Subpart H Overview page and address these validation messages.

**Subpart H: Open Summary Information**

H-Cement 1 (2010)  
**Subpart H: Cement Production**  
 Subpart Overview

**OVERVIEW OF SUBPART REPORTING REQUIREMENTS**  
 Subpart H requires affected facilities to report carbon dioxide (CO<sub>2</sub>) from each cement kiln. First, use this page to identify each cement kiln and then enter Greenhouse gas (GHG) data required by Subpart H for each cement kiln and for your facility. For additional information about Subpart H reporting, please use the e-GGRT Help link(s) provided.

EPA has proceeded to offer collection of 2010 data elements used as inputs to emission equations for direct reporters. (See 75 FR 31350, published Dec. 27, 2010) E-GGRT currently reflects this proposal, and EPA will make any adjustments necessary to reflect the final rule.

**Subpart H: View Validation**

**SUBPART H SUMMARY INFORMATION FOR THIS FACILITY**

# of Cement Kilns	# of Operating Cement Kilns	CO <sub>2</sub> (metric tons)

**CEMENT KILN SUMMARY**

Name/ID	Status <sup>1</sup>	Delete
002	Complete	OPEN
003	Complete	OPEN
004	Complete	OPEN
005	Complete	OPEN

**CEMENT KILN SUMMARY (Cement kilns monitored by CEMS)**

Name/ID	Status <sup>1</sup>	Delete
No units have been added		

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In the interest of time, we have jumped a bit ahead. So let's assume that we have completed data entry for Kiln 4 and corrected the cement production data for Kiln 2.

At this time, we have addressed all the equation-level data validation messages. Now we need to enter the facility-level information. Click the blue "OPEN" button on the Subpart H Summary Information table.



**Subpart H: Summary Information**

HOME | FACILITY REGISTRATION | FACILITY MANAGEMENT | DATA REPORTING | Electronic Greenhouse Gas Reporting Tool | Hello, Marcus Palmer | My Profile | Logout

H-Cement 1 (2010)  
**Subpart H: Cement Production**  
 Subpart Overview » Subpart H Summary Information

**SUBPART H SUMMARY INFORMATION FOR THIS FACILITY**  
 Subpart H requires a facility to report the facility information described below. For additional information about the facility information required by Subpart H, please use the e-GGRT Help link(s) provided.

Annual CO<sub>2</sub> process emissions from cement manufacturing (metric tons): **900,000.0**

**EQUATION H-1 SUMMARY AND RESULT**

$$CO_{2\text{Total}} = \sum_{i=1}^n CO_{2\text{CEMS},i} + CO_{2\text{H}}$$

Annual CO<sub>2</sub> process emissions from cement manufacturing:  (metric tons)  
 Use Subpart H equation spreadsheets to calculate.

Annual cement production for the facility:  (tons) ← 2

**TOTAL NUMBER OF KILNS**  
 Number of kilns:  ← 3  
 Number of operating kilns:

Use the OPTIONAL e-GGRT Calculation Spreadsheet to calculate the Equation Result that is entered here. Inputs to emission equations for direct reporters are not currently collected by e-GGRT consistent with the signed Final Rule Deferring Collection of Inputs. See <http://epa.gov/climatechange/emissions/CBI.html>

You will now be directed to the Summary Information form.

Here you enter the total Annual CO<sub>2</sub> Emissions for kilns not monitored by CEMS. Remember you can download worksheets EPA has developed to calculate emissions using the clinker based methodology in Subpart H. Remember use of these worksheets is optional.

Next enter the annual cement production at the facility, the total number of kilns at the facility (both CEMS and non-CEMS) and the number of kilns that were operating during the reporting year as shown by arrow number 2 and number 3.

As with previous entries, remember to click SAVE to store this information and return to the Subpart H overview page.

## 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 pre-publication version of the 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 during our Sandbox Testing opportunity earlier this year, those spreadsheets may have change since then. Be sure to download the most recent and correct version of the calculation spreadsheets from the e-GGRT Subpart H Help Content.

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.

# Equation H-1 Spreadsheet



**Subpart H - Cement Production - Calculating CO<sub>2</sub> Process Emissions from All Kilns at the Facility Using Equation H-1**  
**OPTIONAL SPREADSHEET FOR FACILITY RECORDKEEPING PURPOSES**  
 Version: e-GGRT FROM EPA  
 Today's date: 10/22/2018

This spreadsheet is protected and contains locked cells to ensure that you do not inadvertently alter any of the included formulas and/or calculations. To remove this protection and after this spreadsheet, right-click the "worksheet" tab near the bottom of the screen and select "Unprotect Sheet." When prompted for the password, type "none" and click "OK." Please note that making changes to an unprotected sheet could result in incorrect calculations and that you are responsible for the accuracy of the data you report to EPA. For additional help, visit the Microsoft Excel Support website (<http://office.microsoft.com/en-us/excel/help>).

Equation H-1:  

$$CO_{2,CMF} = \frac{E}{M} \cdot CO_{2,CM} + CO_{2,EM}$$

Facility Name: \_\_\_\_\_  
 Reporting Period: \_\_\_\_\_  
 Comments: \_\_\_\_\_  
 Kiln Type: Cement kiln

Input Data

Enter results from Equation H-2 for each kiln. *Space for up to 10 kilns is provided. Use additional copies of this spreadsheet for additional kilns.*

Kiln Number	[CO <sub>2,CM</sub> ] = Total annual emissions of CO <sub>2</sub> from kiln production from kiln #, metric tons	[CO <sub>2,EM</sub> ] = Total annual emissions of CO <sub>2</sub> from kiln #, metric tons
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		

Enter result from Equation H-5:  
 [CO<sub>2,CM</sub>] = Total annual emissions of CO<sub>2</sub> from all kilns at the facility, metric tons  
 [CO<sub>2,EM</sub>] = Total annual emissions of CO<sub>2</sub> from all kilns at the facility, metric tons

Annual CO<sub>2</sub> process emissions from all kilns at the facility (metric tons), result from Equation H-1:  
 [CO<sub>2,CMF</sub>] = Annual process emissions of CO<sub>2</sub> from all kilns at the facility, metric tons

**88**  
 Enter this value in e-GGRT

This is a screenshot of the Equation H-1 Worksheet that you could use to calculate annual CO<sub>2</sub> emissions from all kilns at the facility.

As you scroll further down the worksheet, you will see that the worksheet highlights the data to be entered into e-GGRT with a red box identical to the one on the web form.

**Subpart H: Adding CEMS Unit**

**Subpart H: Cement Production**

**Subpart Overview**

**OVERVIEW OF SUBPART REPORTING REQUIREMENTS**  
 Subpart H requires affected facilities to report carbon dioxide (CO<sub>2</sub>) from each cement kiln. First, use this page to identify each cement kiln and then enter Greenhouse gas (GHG) data required by Subpart H for each cement kiln and for your facility. For additional information about Subpart H reporting, please use the e-GGRT Help link(s) provided.

EPA has proposed to offer collection of 2010 data elements used as inputs to emission equations for direct reporters. (See 75 FR 91350, published Dec. 27, 2010. E-GGRT Summary reflects this proposal, and EPA will make any adjustments necessary to reflect the final rule.

**SUBPART H SUMMARY INFORMATION FOR THIS FACILITY**

# of Cement Kilns	# of Operating Cement Kilns	CO <sub>2</sub> (metric tons)	
5	4	900,000	<a href="#">OPEN</a>

**CEMENT KILN SUMMARY**

Name/ID	Status <sup>1</sup>		Delete
002	Complete	<a href="#">OPEN</a>	<a href="#">✖</a>
003	Complete	<a href="#">OPEN</a>	<a href="#">✖</a>
004	Complete	<a href="#">OPEN</a>	<a href="#">✖</a>
005	Complete	<a href="#">OPEN</a>	<a href="#">✖</a>

[ADD a Cement Kiln](#)

**CEMENT KILN SUMMARY (Cement kilns monitored by CEMS)**

Name/ID	Status <sup>1</sup>	Delete
No units have been added		

[ADD a Cement Kiln Monitored by CEMS](#)

[Facility Overview](#)

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After completing entry of all information for all non-CEMS units and cross-checking validation messages, we get confirmation that, so far, our Subpart H information is complete and validated.

See that that Validation Bar has now changed – as circled on the screen. We see a checkmark symbol replacing the exclamation mark. We have successfully addressed all the validation messages.

Now let's turn to adding information for a cement kiln that is monitored by a CEMS. As with the kilns not monitored by CEMS, we must begin by first adding a kiln.

Click on the "Add a Unit Monitored by CEMS" hyperlink as shown by the arrow at the bottom of the screen.

The screenshot shows the EPA e-GGRT interface for 'Subpart H: Cement Production'. The form is for 'FACILITY 7 (2010)'. The main heading is 'Subpart H: Cement Production'. Below this, there is a section titled 'CONTINUOUS EMISSIONS MONITORING SYSTEMS (CEMS)'. The text in this section asks the user to indicate if emissions for this cement kiln are measured by a CEMS. The question is 'Is this cement kiln's emissions monitored using a CEMS?'. There are two radio button options: 'Yes' and 'No'. The 'Yes' option is selected, as indicated by a green arrow labeled 'SELECT'. Below the question are two buttons: 'CANCEL' and 'SAVE'. A green arrow labeled 'SAVE' points to the 'SAVE' button. The footer of the page includes 'Paperwork Reduction Act Burden Statement | Contact Us' and 'e-GGRT RY2010.R.40 | H(cems)'.

When you select Add a Cement Kiln – you will open the “Add/Edit a Cement Kiln CEMS” form.

On this form, you will be asked to confirm that the unit is monitored by CEMS. In this case, as you can see by the first arrow, the question will default to the response “Yes.”

Since this is true for this kiln, you can accept this default selection.

Make sure to again click the green “Save” button to continue to the next form.

The screenshot displays the EPA e-GGRT interface for entering cement kiln information. At the top, a blue banner reads "Subpart H: Enter Cement Kiln Information (CEMS)". The EPA logo and "United States Environmental Protection Agency" are on the left, and the "e-GGRT Electronic Greenhouse Gas Reporting Tool" logo is on the right. A navigation menu includes "HOME", "FACILITY REGISTRATION", "FACILITY MANAGEMENT", and "DATA REPORTING". The user is logged in as "Hello, Marcus Palmer | My Profile | Logout".

The main content area is titled "H-Cement 1 (2010) Subpart H: Cement Production" with links for "Subpart Overview" and "Add/Edit a Cement Kiln". A grey box provides instructions: "CEMENT KILN INFORMATION Subpart H requires a facility to uniquely identify each cement kiln and provide the information described below for each. For additional information about adding and editing a cement kiln, please use the e-GGRT Help link(s) provided. \* denotes a required field".

The form is divided into two sections:

- UNIT INFORMATION:**
  - Name or ID \***: Text input field containing "001" (40 characters maximum).
  - Description (optional)**: Text input field containing "Preheater/Precliner".
  - Type**: Dropdown menu set to "Cement Kiln".
- CONTINUOUS EMISSIONS MONITORING:**
  - Is this cement kiln's emissions monitored using a CEMS?**: Radio button selection with "Yes" selected and "No" unselected.

At the bottom, there are two buttons: "Back to Overview" and "SAVE". A green arrow points to the "SAVE" button.

You will then continue to the “Add/Edit a Cement Kiln” form.

Begin by entering the cement kiln name or ID. The description of the unit is an optional field, you can complete it as shown.

Again confirm that the unit is monitored by CEMS and hit the green “SAVE” button.

Hit the “Back to Overview” button to return to the Subpart H Overview form.

**Subpart H: Open Kiln monitored by CEMS**

H-Cement 1 (2010)

**Subpart H: Cement Production**

**Subpart Overview**

**OVERVIEW OF SUBPART REPORTING REQUIREMENTS**  
 Subpart H requires affected facilities to report carbon dioxide (CO<sub>2</sub>) from each cement kiln. First, use this page to identify each cement kiln and then enter Greenhouse gas (GHG) data required by Subpart H for each cement kiln and for your facility. For additional information about Subpart H reporting, please use the e-GGRT Help link(s) provided.

EPA has proposed to offer collection of 2010 data elements used as input to emission equations for direct reporters. (See 75 FR 91380, published Dec. 27, 2010.) e-GGRT currently reflects this proposal, and EPA will make any adjustments necessary to reflect the final rule.

**Subpart H: View Validation**

**SUBPART H SUMMARY INFORMATION FOR THIS FACILITY**

# of Cement Kilns	# of Operating Cement Kilns	CO <sub>2</sub> (metric tons)	
5	4	900,000	<a href="#">OPEN</a>

**CEMENT KILN SUMMARY**

Name/ID	Status*		Delete
002	Complete	<a href="#">OPEN</a>	<a href="#">X</a>
003	Complete	<a href="#">OPEN</a>	<a href="#">X</a>
004	Complete	<a href="#">OPEN</a>	<a href="#">X</a>
005	Complete	<a href="#">OPEN</a>	<a href="#">X</a>

[ADD a Cement Kiln](#)

**CEMENT KILN SUMMARY (Cement kilns monitored by CEMS)**

Name/ID	Status*		Delete
001	Incomplete	<a href="#">OPEN</a>	<a href="#">X</a>

[ADD a Cement Kiln Monitored by CEMS](#)

**CEMS MONITORING LOCATION SUMMARY**

CM#	Total CO <sub>2</sub> emissions (metric tons)

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After clicking SAVE, you will return to the Subpart H Overview page.

You should now see the kiln you just entered (Kiln 001) in the CEMENT KILN SUMMARY (kilns monitored by CEMS) table as shown by the arrow.

Note the Status of this kiln is incomplete, this is because we still have some information to enter so let's click OPEN to complete this entry.

**Subpart H: Enter Production Information**

H-Cement 1 (2010)  
**Subpart H: Cement Production**  
[Subpart Overview](#) » [GHG Info - 001](#)

**GHG DATA AID INFORMATION**  
 Use this page to enter the GHG data required by Subpart H for a cement kiln that is monitored by CEMS. For additional information about the data collected on this page, please use the e-GORT Help link(s) provided.

**JANUARY**  
 A missing data procedure was used to determine the clinker production   
 Clinker production  (tons)  Make all months same

**FEBRUARY**  
 A missing data procedure was used to determine the clinker production   
 Clinker production  (tons)

**MARCH**  
 A missing data procedure was used to determine the clinker production   
 Clinker production  (tons)

**APRIL**  
 A missing data procedure was used to determine the clinker production   
 Clinker production  (tons)

After clicking OPEN, you will go to the “GHG info” form for Kiln 001.

For each kiln using a CEMS - for each month indicate whether missing data procedures were applied to estimate clinker production.


In addition, enter the clinker production for each month as shown. Note the units.

You also have the option to make all months the same if this is the case for some data.

When you have entered all the required monthly information, scroll down this form and hit the green “SAVE” button and you will return to the Subpart H overview page.



## Subpart H: Adding CEMS Monitor Location



[e-GGRT Help](#)

Using e-GGRT for Subpart H reporting

**H-Cement 1 (2010)**

**Subpart H: Cement Production**

**Subpart Overview**

**OVERVIEW OF SUBPART REPORTING REQUIREMENTS**

Subpart H requires affected facilities to report carbon dioxide (CO<sub>2</sub>) from each cement kiln. First, use this page to identify each cement kiln and then enter Greenhouse gas (GHG) data required by Subpart H for each cement kiln and for your facility. For additional information about Subpart H reporting, please use the e-GGRT Help link(s) provided.

EPA has proposed to defer collection of 2010 data elements used as inputs to emission equations for direct reporters. (See 75 FR 81360, published Dec. 27, 2010.) E-GGRT (current) reflects this proposal, and EPA will make any adjustments necessary to reflect the final rule.

✔ Subpart H: No Validation Messages

**SUBPART H SUMMARY INFORMATION FOR THIS FACILITY**

# of Cement Kilns	# of Operating Cement Kilns	CO <sub>2</sub> (metric tons)
5	4	900,000

[OPEN](#)

**CEMENT KILN SUMMARY**

Name/ID	Status*	Delete
002	Complete	<a href="#">OPEN</a> ✖
003	Complete	<a href="#">OPEN</a> ✖
004	Complete	<a href="#">OPEN</a> ✖
005	Complete	<a href="#">OPEN</a> ✖

➤ [ADD a Cement Kiln](#)

**CEMENT KILN SUMMARY (Cement kilns monitored by CEMS)**

Name/ID	Status*	Delete
001	Complete	<a href="#">OPEN</a> ✖

➤ [ADD a Cement Kiln Monitored by CEMS](#)

**CEMS MONITORING LOCATION SUMMARY**

CEML Name/Identifier	CEML Configuration	Monitored Unit(s)	Total CO <sub>2</sub> emissions (metric tons)	Status	Delete
No CEMS monitoring locations present					

➤ [ADD a CEMS Monitoring Location](#)

**1 CHECK** →

New

**2 ADD** →

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When you return to the Subpart Overview page, you should note that the Cement Kiln Summary indicates that information for Kiln 001 is now complete. This good.

But notice now that there is a NEW table at the bottom of the overview page which did not exist before. This table is titled the “CEMS MONITORING LOCATION SUMMARY” table. This table appears when you add a unit monitored by CEMS. This is where we will add the additional information required by Subpart C that is associated with use of the Tier 4 methodology, including annual emissions.

In this new table, you will need to add each unique CEMS monitoring location that is associated with one or more of the units identified in the CEMS UNIT summary table.

Lets proceed with adding the CEMS monitoring location associated with Kiln 001. To begin with must first “ADD a CEMS Monitoring Location” as shown by arrow number 2. So let’s click on this hyperlink.

## Subpart H: Enter CML GHG Emissions



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Now you will be on the “Add/Edit a CEMS Monitoring Location” form.

Let’s review the key elements of this longer form. This form reflects the reporting requirements for using the Tier 4 method required by Subpart C. As you proceed entering information on this form, dropdown menus and automated calendars are provided to facilitate data entry.

This screenshot shows the top half of the form. The first step shown by arrow 1 is naming and identifying the type of CEMS configuration. Is the CEMS unit monitoring a single process unit or monitoring multiple kilns sharing a common stack?

In this example, we have a CEMS that is monitoring a single unit, the Kiln 001 furnace. So we are calling our location Kiln 001 as well and selecting the appropriate configuration from the dropdown menu as shown.

You should also indicate the types of fuel combusted at this location.

Next as show by arrows 2 and 3, confirm the start and end dates associated with this location and add the quarterly CO2 emissions, annual CO2 emissions, and any biogenic emissions.

All entries must be completed as appropriate for this CEMS monitoring location.

One more thing to note – here is where you will indicate if a slipstream that bypasses your CEMS exists and if you followed methods in the rule to report these emissions.

This screen shows a continuation of this form, so as you scroll down the form you will see these additional data entry cells for total annual CH<sub>4</sub> and N<sub>2</sub>O emissions and additional emissions information.

You can again download the optional calculation worksheet C-10 (using the link provided) to determine some of the data inputs required to calculate the total emissions, which you will then enter into these cells.

After completing all of the information on this page, the next step is to link the emissions monitored by the CEMS to the appropriate cement kiln(s).

To do this, go to the end of the form to the table marked by Arrow 6, and click the “Add/Remove a process unit that exhausts to this CEMS monitoring location” hyperlink.

Subpart H: Link CML to Cement Kiln

United States Environmental Protection Agency

e-GGRT Electronic Greenhouse Gas Reporting Tool

HOME FACILITY REGISTRATION FACILITY MANAGEMENT DATA REPORTING

Hello, Marcus Palmer | My Profile | Logout

e-GGRT Help

H-Cement 1 (2010)

**Subpart H: Cement Production**

Subpart H Overview » Kiln 001 » [Add/Edit Process Units](#)

**IDENTIFY PROCESS UNIT(S)**

Use this page to select each process unit that is monitored by the CML. For additional information about this page, please use the e-GGRT Help link(s) provided. \* denotes a required field

PROCESS UNIT: 001
-------------------

Is this process unit monitored by the CEMS Monitoring Location?  (check if true) **CHECK**

**CANCEL** **SAVE** **SAVE**

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This selection will open up to this simple form you see here.

We have only entered one cement kiln that is monitored by a CEMS, so e-GGRT only displays one kiln – 001- for us to choose from. Click the checkbox to link the CEMS monitoring location to a process unit that is monitored by CEMS, and then click SAVE.

Subpart H: Link CML to Cement Kiln and Save



Hover over an element in the equation above to reveal a definition of that element.  
Enter CH<sub>4</sub> and N<sub>2</sub>O emissions from only combustion directly below. If there are no combustion emissions in this CEMS Monitoring Location, please enter 0.

Total CH<sub>4</sub> emissions  (metric tons)  
Use Equation C-10 spreadsheet to calculate

Total N<sub>2</sub>O emissions  (metric tons)  
Use Equation C-10 spreadsheet to calculate

ADDITIONAL EMISSIONS INFORMATION

Total number of source operating hours in the reporting year  (hours)

The total operating hours in which a substitute data value was used in the emissions calculations for CO<sub>2</sub> concentration  (hours)

The total operating hours in which a substitute data value was used in the emissions calculations for stack gas flow rate  (hours)

The total operating hours in which a substitute data value was used in the emissions calculations for stack gas moisture content (if moisture correction is required and a continuous moisture monitor is used)  (hours)

CEMS MONITORING LOCATION PROCESS UNITS

Process Unit Name/Identifier
001

+ ADD/REMOVE a process unit that exhausts to this CEMS Monitoring Location


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As you can see, we have now linked the CEMS monitoring location to Kiln number 001. This means that the emissions from Kiln “001” are vented to the stack that is monitored by this CEMS.

If multiple units vent to a single stack, then you can add additional units by clicking on the ADD/REMOVE a process unit hyperlink. Because our example configuration type is a single process unit that exhausts to a dedicated stack, we only link Kiln 001 to this monitoring location.

Once you have confirmed that the CEMS location is linked to the appropriate units and all other data entry on this page is complete, hit the green “SAVE” button to return to the Subpart H Overview page.

## Subpart H: Complete and Report



**e-GGRT help**

Using e-GGRT for Subpart H reporting

H-Cement 1 (2010)

### Subpart H: Cement Production

**Subpart Overview**

**OVERVIEW OF SUBPART REPORTING REQUIREMENTS**  
 Subpart H requires affected facilities to report carbon dioxide (CO<sub>2</sub>) from each cement kiln. First, use this page to identify each cement kiln and then enter Greenhouse gas (GHG) data required by Subpart H for each cement kiln and for your facility. For additional information about Subpart H reporting, please use the e-GGRT help link(s) provided.

EPA has processed to date collection of 2010 GHG elements used as inputs to emission calculations for direct reporters. (See 78 FR 61380, published Dec. 27, 2010.) e-GGRT currently reflects this process, and EPA will issue any equipment necessary to reflect the final rule.

**Subpart H: No Validation Messages**

**SUBPART H SUMMARY INFORMATION FOR THIS FACILITY**

# of Cement Kilns	# of Operating Cement Kilns	CO <sub>2</sub> (metric tons)	
5	4	900,000	<a href="#">OPEN</a>

**CEMENT KILN SUMMARY**

NameID	Status		Details
002	Complete	<a href="#">OPEN</a>	<a href="#">X</a>
003	Complete	<a href="#">OPEN</a>	<a href="#">X</a>
004	Complete	<a href="#">OPEN</a>	<a href="#">X</a>
005	Complete	<a href="#">OPEN</a>	<a href="#">X</a>

[ADD a Cement Kiln](#)

**CEMENT KILN SUMMARY (Cement kilns monitored by CEMS)**

NameID	Status		Details
001	Complete	<a href="#">OPEN</a>	<a href="#">X</a>

[ADD a Cement Kiln Monitored by CEMS](#)

**CEMS MONITORING LOCATION SUMMARY**

CEM Location	CEM Configuration	Monitored Unit(s)	Total CO <sub>2</sub> emissions (metric tons)	Status	Details
Kiln 001	Single process/process unit exhausts to dedicated stack	001	2,349,000	Complete	<a href="#">X</a>

[ADD a CEMS Monitoring Location](#)

[Facility Overview](#)

**1 CHECK**

**3 RETURN**

**CHECK 2**

Now when you return to the Subpart Overview Page – you should confirm that e-GGRT has accepted the information for the CEMS monitoring Location you just added. This good, as you can see, the entry shows the name of the CEMS monitoring Location “Kiln 001”, the correct configuration, the monitored unit-001, and the annual emissions total. The status of this entry is now complete.

After entering all information for all units and checking validation messages, we get confirmation that our Subpart H information is complete and validated.

We can return to the Facility Overview Page to Generate a Report and view GHG details.

**Facility Overview: Complete other Subparts**

H-Cement 1 (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)

CO<sub>2</sub> equivalent emissions (excluding biogenic) from source categories (metric tons): **2,787,500**  
 Biogenic CO<sub>2</sub> emissions from source categories (metric tons): **469,800**  
 CO<sub>2</sub> 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		None	OPEN
Subpart H—Cement Production		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
					GENERATE / RE SUBMIT

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When you return to the Facility Overview Page, you can review the details of your Subpart H emissions by clicking on the blue “View GHG Details button.”

In addition to reporting information for Subpart H, cement facilities will also need to enter information under Subpart C – General Stationary Fuel Combustion Sources. Combustion sources may include combustion emissions for kilns that are not monitored using a CEMS and emissions from other process heaters. Data entry for Subpart C is covered in a separate webinar.

**Facility Overview: Generate Report**

EPA United States Environmental Protection Agency

e-GGRT Electronic Greenhouse Gas Reporting Tool

HOME FACILITY REGISTRATION FACILITY MANAGEMENT DATA REPORTING

e-GGRT Help

H-Cement 1 (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)

CO<sub>2</sub> equivalent emissions (including Biogenic) from source categories (metric tons): **2,799,571**  
 Biogenic CO<sub>2</sub> emissions from source categories (metric tons): **469,800**  
 CO<sub>2</sub> 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	<a href="#">OPEN</a>
Subpart C—General Stationary Fuel Combustion Sources	None	<a href="#">OPEN</a>
Subpart H—Cement Production	None	<a href="#">OPEN</a>

[ADD or REMOVE Subparts](#)

If all subparts are complete 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
					<a href="#">GENERATE / RE SUBMIT</a>

REPORT

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Once you have entered all information for Subparts A, C, and H, you can click on the blue “Generate/Resubmit” button on the Submit Annual Report table as shown



# Facility Overview: Generate Report

The screenshot shows the EPA e-GGRT web interface. At the top, there is a blue header with the text "Facility Overview: Generate Report" and the EPA logo. Below the header, there is a navigation menu with "HOME", "FACILITY REGISTRATION", "FACILITY MANAGEMENT", and "DATA REPORTING". The "DATA REPORTING" menu is active. The main content area is titled "e-GGRT Greenhouse Gas Annual Report Submission" and includes a progress bar with three steps: "Generate and Review", "Certify and Send", and "Confirmation". The "Generate and Review" step is currently selected. Below the progress bar, there is a section for "PRE-CERTIFICATION PREPARATION" with a text box explaining the process. A table below this section shows the status of reports, with one entry for "2010 Annual Report v1" that is "Not generated". At the bottom of the page, there is a green "GENERATE REPORT" button with a green arrow pointing to it and the word "CLICK" written next to it. A "BACK" button is also visible at the bottom left.

Report	Status	Last Generated
2010 Annual Report v1	Not generated	

This button will take you to the Generate Report page. Click on the green Generate Report button.

# Annual Report: Generate and Review



H-Cement 1 (2010)  
**e-GGRT Greenhouse Gas Annual Report Submission**  
Select Facility: Facility Overview **Generate and Review**

**PRE-CERTIFICATION PREPARATION**  
Preparation includes generating then reviewing the Annual Report. When complete, you will be able to proceed to certify and submit the Annual Report.

Report	Status	Last Generated
2010 Annual Report	Ready for review	04/28/2011 12:52:59 PM

**GENERATE REPORT**  
Generating the report may take from 1 to 10 minutes depending upon the volume of data.  
Once your facility has generated a report, it is still possible to return to the data reporting screens to make changes. Those changes, however, will not be reflected in your Annual Report until you generate it again.

**IMMEDIATE REPORT**  
The Annual Report has already been prepared. Clicking this button will regenerate the report. This action will reflect any changes that have been made to the reported data.

**REVIEW REPORT**  
Prior to signing and submitting your report to EPA, you may review the report to be sent by using either the VIEW REPORT or VIEW XML buttons.

**CERTIFY and SUBMIT REPORT**  
The Certificate of Representation (COR) for this facility is pending. The COR requires a signature from either the Designated Representative (DR) or Alternate Designated Representative (ADR) before the Annual Report can be certified and submitted.  
A COR may be pending for one of the following reasons:  
1. The facility's original DR and/or ADR have not yet completed the process of establishing and signing the first COR.  
2. A change to either the DR or ADR has been started, but is not yet completed.  
3. The DR or ADR edited the facility's profile (name, address, owners or operators) but failed to sign the COR after making the change.

**BACK**

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E-GGRT will be processing your annual report, which may take several minutes. This page gives you the option to review your report.

# Annual Report: View Report



**Facility Name:** Hi-Cement 1  
**Facility Identifier:** 322946  
**Facility Reporting Year:** 2010  
**Facility Location:**  
 Address: 14555 Avon Parkway  
 City: Chantilly  
 State: VA  
 Postal Code: 20151  
 County:  
**Facility Site Details:**  
 CO2eSubPart(C1):  
 CO2eSubPart(C2):  
 BiogenicCO2eSubPart(C3):  
 Cogeneration Unit Emissions Indicator: N  
 GHG Report Start Date: 2010-01-01-00:00  
 GHG Report End Date: 2010-12-31-00:00  
 Description of Changes to Calculation Methodology:  
 Description of Best Available Monitoring Methods Used:  
 Primary NAICS Code: 327310  
 Second Primary NAICS Code:

**Parent Company Details:**  
 Parent Company Name: Cement Co. 1  
 Address: 14555 Avon Parkway, Chantilly, VA 20151  
 Percent Ownership Interest: 100

**Subpart C - General Stationary Fuel Combustion**  
 Gas Information Details

Gas Name	Gas Name CB1	Other Gas Name	Gas Quantity	Quantity CB1	Override	Override Explanation
Biogenic Carbon Dioxide			0 (Metric Tons)			
Hydrous			0 (Metric Tons)			
Nitrous Oxide			0 (Metric Tons)			
Carbon Dioxide			12000 (Metric Tons)			

**Unit Details:**  
 Unit Name: GP-001  
 Unit Type: Other  
 Unit Description: Fuel combustion for Kilns 000 through 005  
**Small Unit Aggregation Details:**  
 Highest Maximum Rated Heat Input Capacity: 200

**Emission Details:**  
 Annual Sorbent based CO2 Emissions (metric tons): 0  
 Annual Biogenic CO2 Emissions (metric tons): 0  
 Annual Fossil fuel based CO2 Emissions (metric tons): 12000

**Tier Fuel Details:**  
 Fuel: Coke  
 Tier Name: Tier 1 (Equation C-1)  
 Tier Methodology Start Date: 2010-01-01-00:00  
 Tier Methodology End Date: 2010-12-31-00:00

**Fuel Emission Details**

Total CO2 emissions	Total CH4 emissions	Total N2O emissions	Total CH4 emissions CO2e	Total N2O emissions CO2e
12000 (Metric Tons)	0 (Metric Tons)	0 (Metric Tons)	06 (Metric Tons)	06 (Metric Tons)

This is an example screen if you click "View Report" button on previous page.

## Subpart H: Questions?



- e-GGRT Information & Help
  - <http://www.ccdsupport.com>
  - Email: [GHGreporting@epa.gov](mailto:GHGreporting@epa.gov)
- GHG Reporting Program Information & Help
  - [www.epa.gov/ghgreporting/reporters/index.html](http://www.epa.gov/ghgreporting/reporters/index.html)
  - Email: [ghgreporting@epa.gov](mailto:ghgreporting@epa.gov)
- Read more about XML Upload Option
  - [http://www.epa.gov/ghgreporting/reporters/datasystem/e-ggrrt\\_xml.html](http://www.epa.gov/ghgreporting/reporters/datasystem/e-ggrrt_xml.html)
- Other Subpart H Resources
  - <http://www.epa.gov/ghgreporting/reporters/subpart/h.html>

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This concludes our training session for today. We hope this overview has helped you better understand how to navigate and enter information using the e-GGRT reporting tool.

**This slide lists some important links that you may want to refer to later.**