



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

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

Hello, and welcome to the e-GGRT training webinar on using EPA's electronic Greenhouse Gas Reporting Tool to report GHG Data for Subpart N.



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

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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.



- General e-GGRT **2011** Reporting Overview
  - <http://www.epa.gov/ghgreporting/reporters/training/index.html>
- Subpart N reporting
  1. Review adding a Subpart
  2. Review web forms for facilities (glass melting furnaces) not monitored by CEMS
  3. Review web forms for facilities (glass melting furnaces) monitored by CEMS
  4. Review/Validation Warning Messages

This webinar focuses on introducing you to the e-GGRT web forms for reporting emissions under Subpart N. Facilities subject to Subpart N will be using 1 of 2 methods to report emissions. You will either be using (1) CEMS or (2) the raw material input based method provided in 98.143 (b)(2).

- 1) We will first review the steps to add Subpart N and then focus using the web forms for reporting data for furnaces NOT using continuous emission monitoring systems monitor to report annual greenhouse gas emissions.
- 2) Next, we will review forms for reporting emissions monitored by CEMS.
- 3) Then, we will then briefly show you how to review and check validation/warning messages and

Finally we will provide links to help answer questions you may have noted during your review of this webinar. See the Training and Testing opportunities section of our website to access other webinars that might be useful.

# Click Data Reporting Tab



**e-GGRT Greenhouse Gas Data Reporting**

**ANNUAL GHG DATA REPORTING**

You must select a facility to begin using any Data Reporting features, which include: Specifying which subpart the facility will be reporting, entering or updating corporate parent information (subpart A), entering GHG data and viewing validation reports, and lastly, preparing and submitting the Annual Report to EPA.

**REPORTING FACILITIES**

GHGRP ID	Facility or Supplier	Annual Report Status	Facility Overview
522928	G-C-P-nonCEMS - Hydrogen 3 (Belleue, WA)	Not generated	<a href="#">OPEN</a>
522938	PP-C-G-AA-OO - Supplier 2 (Washington, DC)	Ready for review	<a href="#">OPEN</a>
522947	S-Lime 1 (Apex, NC)	Complete, certified and sent	<a href="#">OPEN</a>
522968	Test - Cubicle 713P (Washington, DC)	Not generated	<a href="#">OPEN</a>
523019	CEMax (Washington, DC)	Not generated	<a href="#">OPEN</a>
523020	Molton (Washington, DC)	Ready for review	<a href="#">OPEN</a>
523021	NitroPower-Test (Washington, DC)	Not generated	<a href="#">OPEN</a>
523079	LimaRus (Arlington, VA)	Not generated	<a href="#">OPEN</a>
523080	Concrete Products (Arlington, VA)	Not generated	<a href="#">OPEN</a>
523089	Metals Plus (Lanham-Seabrook, MD)	Not generated	<a href="#">OPEN</a>

**FACILITIES NOT REPORTING IN 2016:**

GHGRP ID	Facility or Supplier	Annual Report Status	Facility Overview
No facilities found			

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Click on the data reporting tab to see the list of facilities subject to Part 98 that you have registered.

# Open Facility



**EPA** United States Environmental Protection Agency

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

HOME | FACILITY REGISTRATION | FACILITY MANAGEMENT | DATA REPORTING

Help, My Account | My Profile | Logout

### e-GGRT Greenhouse Gas Data Reporting

**Select Facility**

**ANNUAL GHG DATA REPORTING**  
You must select a facility to begin using any Data Reporting features, which include: Specifying which subpart the facility will be reporting, entering or updating corporate parent information (subpart A), entering GHG data and viewing validation reports, and lastly, preparing and submitting the Annual Report to EPA.

**TESTING TERMS AND CONDITIONS**  
E-GGRT stakeholder testing is for authorized use only. Testers must be e-GGRT users with access to a registered facility or supplier as a designated representative, alternate, or agent. Testing is taking place in the e-GGRT production environment. Data entered during testing is NOT confidential and will not be protected as confidential. We recommend that you enter test data only. All submitted information may be monitored, recorded, read, copied, and disclosed by and to authorized personnel. Access or use of the computer system by any person, whether authorized or unauthorized, constitutes consent to these terms.

**REPORTING FACILITIES**

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**FACILITIES NOT REPORTING IN 2016:**

GHGRP ID	Facility or Supplier	Annual Report Status	Facility Overview
No facilities found			



To begin reporting for the facility – click Open in the row of the relevant facility.

The screenshot displays the EPA e-GGRT Greenhouse Gas Data Reporting interface. At the top, the EPA logo and 'e-GGRT Electronic Greenhouse Gas Reporting Tool' are visible. The page title is 'Adding Subparts'. The main content area is titled 'CEMax (2010) e-GGRT Greenhouse Gas Data Reporting'. It includes a 'FACILITY OR SUPPLIER OVERVIEW' section with instructions on how to add source categories. A table under 'REPORT DATA' lists subparts A, B, and C. A green arrow points to the '+ADD or REMOVE Subparts' link. Below the table is a 'SUBMIT ANNUAL REPORT' section with a 'GENERATE / RESUBMIT' button. The EPA logo and 'e-GGRT Electronic Greenhouse Gas Reporting Tool' are visible at the top.

After opening your facility, in order to use the web forms within e-GGRT to report data for a particular subpart – you need to add all applicable subparts to your facility from the Facility Overview page. Subpart A will already be listed for all facilities.

As shown, click the blue hyperlinked text to “ADD or REMOVE Subparts” so that you can add Subpart N – Glass Production

Adding Subpart: Subpart N Selection

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- N—Glass Production  
Description (SHOW | HIDE)
- O—HFC-22 Production and HFC-23 Destruction  
Description (SHOW | HIDE)
- P—Hydrogen Production  
Description (SHOW | HIDE)
- Q—Iron and Steel Production  
Description (SHOW | HIDE)
- R—Lead Production  
Description (SHOW | HIDE)
- S—Lime Manufacturing  
Description (SHOW | HIDE)
- U—Miscellaneous Uses of Carbonates  
Description (SHOW | HIDE)
- V—Nitric Acid Production  
Description (SHOW | HIDE)
- X—Petrochemical Production  
Description (SHOW | HIDE)
- Y—Petroleum Refineries  
Description (SHOW | HIDE)
- Z—Phosphoric Acid Production  
Description (SHOW | HIDE)
- AA—Pulp and Paper Manufacturing  
Description (SHOW | HIDE)
- BB—Silicon Carbide Production  
Description (SHOW | HIDE)
- CC—Soda Ash Manufacturing  
Description (SHOW | HIDE)
- EE—Titanium Dioxide Production  
Description (SHOW | HIDE)
- GG—Zinc Production  
Description (SHOW | HIDE)

MM—Suppliers of Petroleum Products  
Description (SHOW | HIDE)

NN—Suppliers of Natural Gas and Natural Gas Liquids  
Description (SHOW | HIDE)

OO—Suppliers of Industrial Greenhouse Gases  
Description (SHOW | HIDE)

PP—Suppliers of Carbon Dioxide  
Description (SHOW | HIDE)

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

CANCEL SAVE

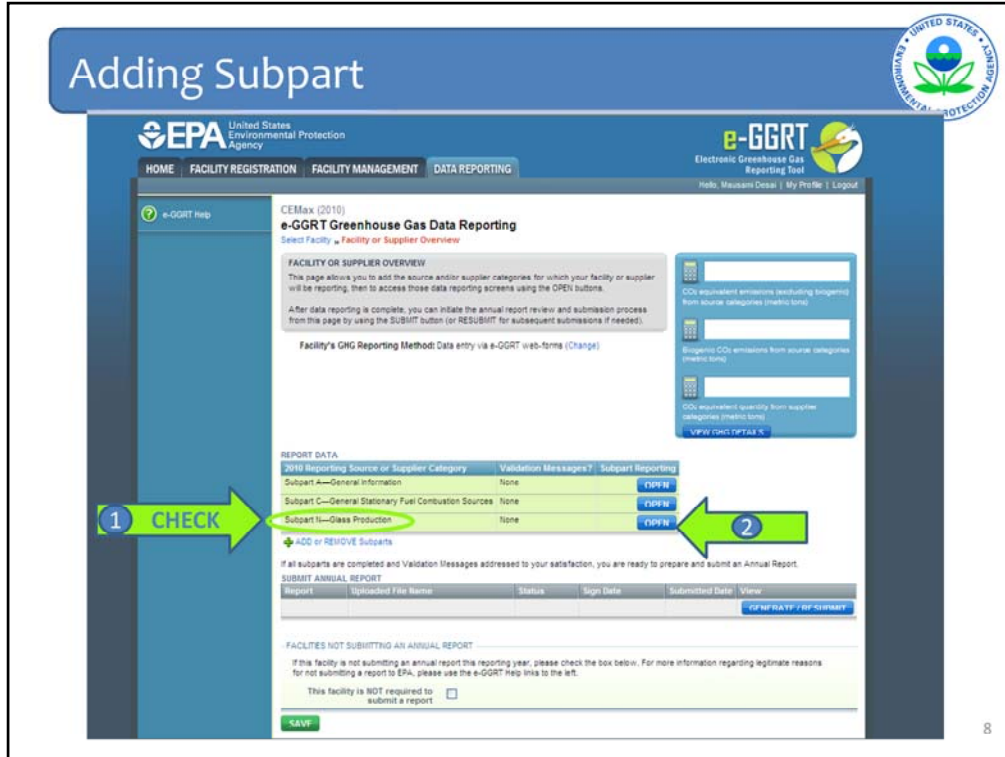
2

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On the Subpart selection page, select the checkbox next to Subpart N on the list.

IF other subparts are applicable to your facility, this is where you would select those Subparts at this time, but you can also come back at anytime before submitting your report to add subparts.

Next, you should hit “SAVE” so you can return to the Facility Overview Page.



On the Facility Overview page you should now see Subpart N Glass Production listed in the Report Data table.

See it listed in the third row.

To begin reporting data, let's open the reporting module by clicking the BLUE "OPEN" button as shown by arrow number 2.



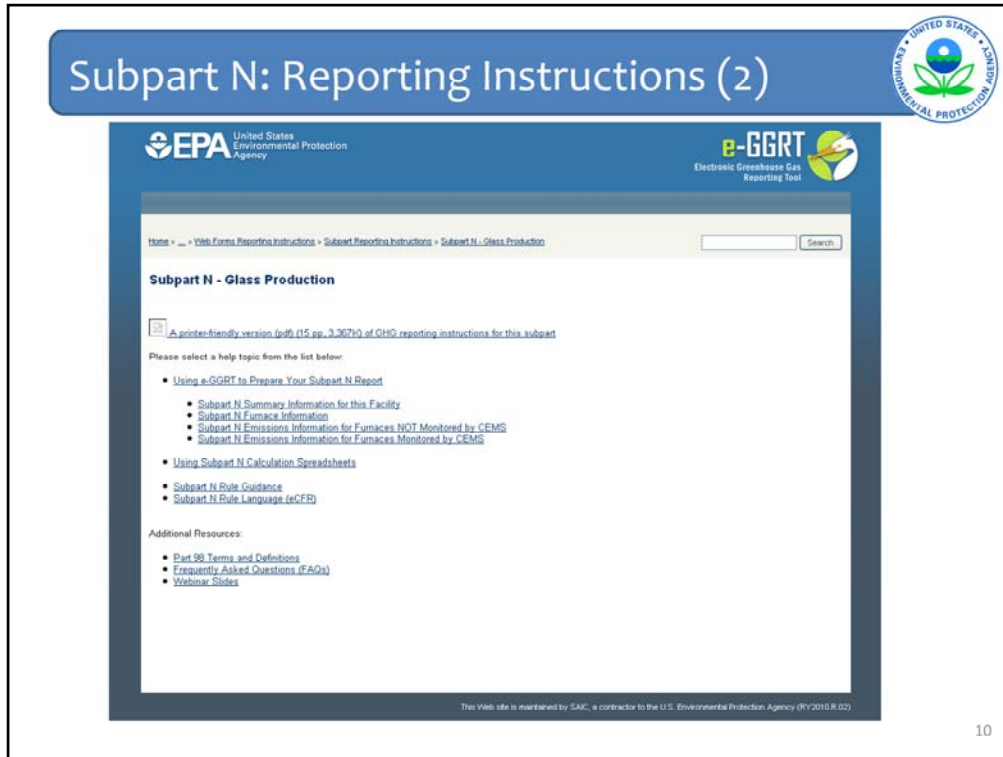
# Subpart N: Reporting Instructions (1)



The screenshot displays the EPA e-GGRT (Electronic Greenhouse Gas Reporting Tool) interface. At the top, the EPA logo and 'United States Environmental Protection Agency' are on the left, and the e-GGRT logo and 'Electronic Greenhouse Gas Reporting Tool' are on the right. A navigation bar includes 'HOME', 'FACILITY REGISTRATION', 'FACILITY MANAGEMENT', and 'DATA REPORTING'. A user profile 'Hello, Mausam Desai | My Profile | Logout' is visible in the top right. A blue sidebar on the left contains an 'e-GGRT Help' link with a question mark icon and the text 'Using e-GGRT for Subpart N reporting'. The main content area is titled 'Concrete Products (2010)' and 'Subpart N: Glass Production'. Below this is a 'Subpart Overview' section with the heading 'OVERVIEW OF SUBPART REPORTING REQUIREMENTS'. The text states: 'Subpart N requires affected facilities to report carbon dioxide(CO<sub>2</sub>) process emissions from each continuous glass melting furnace. First, use this page to identify each continuous glass melting furnace and then enter Greenhouse gas (GHG) data required by Subpart N for each continuous glass melting furnace and for your facility. For additional information about Subpart N reporting, please use the e-GGRT Help link(s) provided.' A yellow callout box on the right contains a notice: 'The EPA Administrator has signed a rule that defers collection of data elements used as inputs to emission equations for direct reporters. The rule will be published in the Federal Register; a prepublication version of the rule is available on our website at: <http://www.epa.gov/climatechange/emissions/CR.html>. In accordance with the rule, e-GGRT is not currently collecting data categorized as inputs to emission equations.'

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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 N.



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

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

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

The screenshot shows the EPA e-GGRT interface for Subpart N reporting. The page is titled "Subpart N Reporting: Subpart Overview". The EPA logo is in the top left, and the e-GGRT logo is in the top right. The navigation menu includes HOME, FACILITY REGISTRATION, FACILITY MANAGEMENT, and DATA REPORTING. The main content area is titled "Subpart N: Glass Production" and "Subpart Overview". It contains an overview of reporting requirements, a summary table for the facility, and two summary tables for glass melting furnaces. A yellow box on the right contains a notice about EPA's proposed deferral of 2010 data collection. A warning icon indicates a validation issue. Three green arrows on the left point to "Final Step", "Step 1", and "Step 2".

You will now be on the Subpart N overview page as indicated by the circle at the top of the page. The Subpart N overview page, like the facility overview page is the “home page” for Subpart N reporting. As you go to specific data entry forms within this module the text circled at the top of the page will change, be sure to check this text to see where you are within the reporting module.

On the overview page, there are 3 main sections where you will need to enter Subpart N specific data.

The first section is “Subpart N SUMMARY INFORMATION FOR THIS FACILITY”. This table will compile some of the information as you enter into the other sections, so it is best to complete this section last as noted on the screen.

The second section is the “GLASS MELTING FURNACE SUMMARY” table. Here you will enter information required for each furnace NOT monitored by CEMS, such as the furnace identification information and information on methods to determine mass and calcination fractions for each raw material. This will be the first step as noted on the screen.

The last section, “GLASS MELTING FURNACE SUMMARY (Furnaces monitored by CEMS)”, is where you will enter emissions data for furnaces that are monitored by CEMS. We will do this as the second step.

The screenshot displays the EPA e-GGRT interface for Subpart N reporting. The main heading is "Subpart N: Glass Production". The page is divided into several sections:

- Navigation:** HOME, FACILITY REGISTRATION, FACILITY MANAGEMENT, DATA REPORTING.
- Left Sidebar:** e-GGRT Help, Using e-GGRT for Subpart N reporting.
- Header:** EPA United States Environmental Protection Agency, e-GGRT Electronic Greenhouse Gas Reporting Tool.
- Overview Section:** "OVERVIEW OF SUBPART REPORTING REQUIREMENTS" with a "Note" icon pointing to a "Subpart N: View Validation" link.
- Summary Section:** "SUBPART N SUMMARY INFORMATION FOR THIS FACILITY" with a table for "Number of furnaces" and "Total annual quantity of glass produced(tons)".
- Table 1:** "GLASS MELTING FURNACE SUMMARY" with columns: Name/ID, Raw Materials, CO<sub>2</sub> (metric tons), Status, Delete. A "Step 1" arrow points to the "ADD a Furnace" button below the table.
- Table 2:** "GLASS MELTING FURNACE SUMMARY (Furnaces monitored by CEMS)" with columns: Name/ID, Raw Materials, Status, Delete. A "ADD a Furnace Monitored by CEMS" button is below.

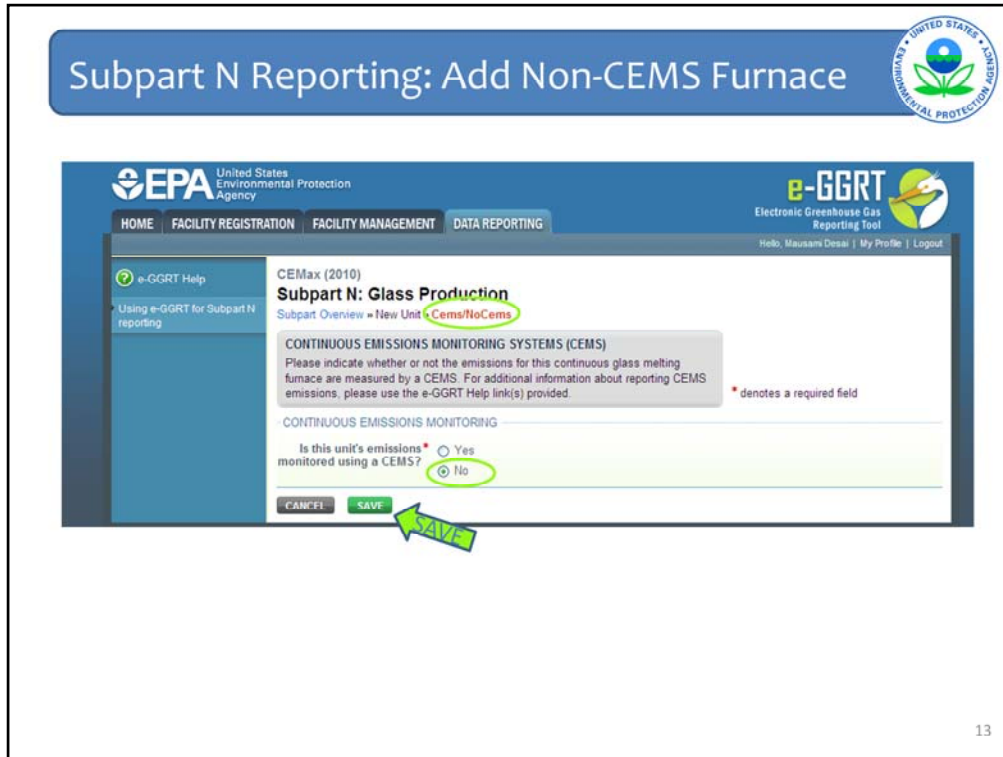
Now let's proceed to begin reporting information.

Let's start with the first section which covers reporting of furnace level information.

Let's first focus on entering information for furnaces NOT using (CEMS). These furnaces should be using the raw material input method provided in Subpart N of Part 98.

To enter information required for each glass melting furnace using this method, let's begin by clicking on the blue hyperlink "Add a Furnace" as shown by the step 1 arrow on the screen.

Note: The Validation box/bar will be red indicating that data entry is incomplete, data is outside of reasonable range, etc. In all cases this bar will start off red since you have not entered data. We will review this later, but once you have completed data entry as you walk through this webinar – the icon should change from an exclamation mark to a green check mark.



After selecting “Add a Furnace” you will be directed to the CEMS/NoCEMS form where you should confirm that the monitoring method for the Glass Melting Furnace is not CEMS. This form will default to the answer no.

For this first example, let’s confirm this choice. To accept your selection and continue to the next form, hit the green “SAVE” button at the bottom of the form.

The screenshot shows the EPA e-GGRT interface for adding or editing furnace information. The page title is 'Subpart N: Add/Edit Furnace Information'. The user is logged in as 'Moussami Desai'. The form is for 'CEMax (2010) Subpart N: Glass Production' and is for 'Furnace 001'. The form is divided into four main sections, each indicated by a numbered arrow on the left:

- UNIT INFORMATION:** Name or ID\* (Furnace 001), Description (optional), Type (Continuous Glass Melting Furnace).
- Annual quantity of glass produced by this furnace:** 50000 (tons).
- Select the raw materials\* charged to this furnace:**
  - Limestone — CaCO<sub>3</sub>
  - Dolomite — CaMg(CO<sub>3</sub>)<sub>2</sub>
  - Sodium carbonate — Na<sub>2</sub>CO<sub>3</sub>
  - Barium carbonate — BaCO<sub>3</sub>
  - Potassium carbonate — K<sub>2</sub>CO<sub>3</sub>
  - Lithium carbonate — Li<sub>2</sub>CO<sub>3</sub>
  - Strontium carbonate — SrCO<sub>3</sub>
- CONTINUOUS EMISSIONS MONITORING:** Is this unit's emissions\* monitored using a CEMS? (Radio buttons: Yes, No).

At the bottom, there are 'CANCEL', 'SAVE', and 'SAVE' buttons. The 'SAVE' button is highlighted in green.

Once you select “SAVE” you will be directed to the “Raw Materials and Glass Produced” form to enter more information required to be reported for each glass melting furnace using the raw material input method.

This page has 4 main sections where you will need to enter data.

In the first section – enter the furnace name or identification number. You can also enter additional description if needed to help identify the unit.

Next enter the annual quantity of glass produced by the furnace in tons. Be sure to check units, this is short tons not metric tons.

In the third section, select the types of raw materials charged to this furnace.

Finally, confirm again that the furnace is not monitored by CEMS. You can change this unit to a CEMS unit under the heading “Continuous Emissions Monitoring”. Keep in mind that if you do decide to switch methods at this point, then you will lose any previously entered data for this furnace once you hit the green “SAVE” button.

Once you have entered all the relevant information and confirmed the method – hit the save button to return to the Subpart N Overview page.

**Subpart N: Enter emissions information for furnace not monitored by CEMS**

EPA United States Environmental Protection Agency

e-GGRT Electronic Greenhouse Gas Reporting Tool

HOME FACILITY REGISTRATION FACILITY MANAGEMENT DATA REPORTING

CEMMax (2010)  
**Subpart N: Glass Production**

**Subpart Overview**

**OVERVIEW OF SUBPART REPORTING REQUIREMENTS**  
Subpart N requires affected facilities to report carbon dioxide(CO<sub>2</sub>) process emissions from each continuous glass melting furnace. First, use this page to identify each continuous glass melting furnace and then enter Greenhouse gas (GHG) data required by Subpart N for each continuous glass melting furnace and for your facility. For additional information about Subpart N 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 81350, published Dec. 27, 2010.) E-GGRT currently reflects this proposal, and EPA will make any adjustments necessary to reflect the final rule.

**Subpart N: View Validation**

**SUBPART N SUMMARY INFORMATION FOR THIS FACILITY**

Number of furnaces	Total annual quantity of glass produced(tons)
1	50,000

**GLASS MELTING FURNACE SUMMARY**

Name/ID	Raw Materials	CO <sub>2</sub> (metric tons)	Status	Delete
<a href="#">Furnace 001</a>	Limestone, Dolomite, Sodium carbonate		Incomplete	<a href="#">OPEN</a>

**GLASS MELTING FURNACE SUMMARY (Furnaces monitored by CEMS)**

Name/ID	Raw Materials	Status	Delete
No units have been added			

When you return to the Subpart N Overview page, you will first see that the Subpart N Summary Information table has been updated based on information you entered for Furnace 001. If it has not been updated for the recent entry you may have forgotten to hit “SAVE.” You may need to go back and re-enter information.

Next, as shown by arrow 2, in the Glass Melting Furnace Summary table you should see the furnaces you have identified along with the types of raw materials consumed by each furnace. If you are missing any raw materials or you added a raw material not consumed by this furnace you can go back and update the information by clicking on the blue hyperlinked name of the furnace in the NAME/ID column.

As you continue to read across the row, you can see that the “Status” field is still “incomplete” for this furnace.

This is because we still need to enter emissions information for this furnace.

To add this information click the blue “OPEN” button for “Furnace 001” as shown here to complete entering the remaining information required for this furnace as shown by arrow 3.

After selecting “OPEN” you will be directed to Eq. N-1 form where you will enter furnace level GHG emissions.

First, as shown by arrow number 1, you should review the form to make sure that all the carbonate-based raw material inputs you identified for this furnace are listed on this screen as headers for other data entry. If they are not all listed, go back and select them by editing the furnace just described on the previous slide and then re-OPEN this page.

Once you have confirmed that the raw material inputs are appropriately listed, you need to enter in the red box, the annual CO<sub>2</sub> emissions for the furnace as shown by arrow number 2. Above the red box, for reference, you can see Equation N-1 from the rule, which is required to determine annual CO<sub>2</sub> emissions from a furnace.

EPA has prepared optional worksheets to assist reporters in calculating emissions applying equations provided in Part 98. You are not required to use this worksheet, but the worksheet for equation N-1 is available by clicking on the blue hyperlink below the red box. Once you click on this link you will be directed to download the worksheet for Equation N-1.



## 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 for previous reporting, we may have made updates per comments from reporters. Be sure to download the most recent and correct version of the calculation spreadsheets from the e-GGRT Help site for Subpart N.

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

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

The inputs of the equation are NOT currently collected by e-GGRT. EPA is providing OPTIONAL calculation spreadsheets that you can use to perform the calculations called for in the emission equations. These Microsoft Excel spreadsheets can be downloaded and opened on your own computer. Just click the hyperlink on the web-form to view and download the appropriate calculation spreadsheet for the equation you are working on. You can enter the data, including equation inputs, necessary to perform the calculation for the equation, and the spreadsheets will calculate the result for you. Once you have calculated the result, enter the result on to the e-GGRT web form.

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

# Subpart N: Equation N-1 Worksheet



**Calculating CO<sub>2</sub> Emissions for Continuous Glass Melting Furnaces Using Equation N-1**

**OPTIONAL UPDATESHEET FOR FACILITY RECONSTRUCTION PURPOSES**

Revision: e-GGRT PROGRAM  
Today's date: 10/20/09

**Use one spreadsheet for each process unit. Make additional copies as needed.**

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 alter this spreadsheet, right-click the "Worksheet" tab near the bottom of the screen and select "Unprotect Sheet." When prompted for the password, type "GGRT" 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 N-1: 
$$E_{CO_2} = \sum_{i=1}^n MF_i \cdot \left( M_i \cdot \frac{2000}{22000} \right) \cdot EF_i \cdot F_i$$

**General Information**

Facility Name: \_\_\_\_\_  
 Unit Name: \_\_\_\_\_  
 Reporting Period: \_\_\_\_\_  
 Comments: \_\_\_\_\_  
 Unit Type: Continuous Glass Melting Furnace

**N-1 Input Data**

Carbonate Based Flow Material - Mineral	MF-1: Annual average mass fraction of carbonate based material in carbonate based raw material (percentage, expressed as a decimal)	MF-1: Based amount of carbonate based raw material charge to furnace (tons)	EF-1: Emission factor for carbonate based raw material charge for CO <sub>2</sub> per metric ton carbonate based raw material as shown in Table N-1 (this unit)	F-1: Fraction of carbonate based raw material accepted to be input to 10 percentage, expressed as a decimal
Limestone - CaCO <sub>3</sub>	L		0.480	L
Dolomite - CaMg(CO <sub>3</sub> ) <sub>2</sub>	L		0.497	L
Softest carbonate/silica ash	L		0.485	L
Medium carbonate	L		0.533	L
Hardest carbonate	L		0.590	L
Hardest carbonate/CaCO <sub>3</sub>	L		0.580	L
		The default value for MF-1 is 1		The default value for F-1 is 1

**N-1 Constants**

Conversion factor to convert tons to metric tons: \_\_\_\_\_

**N-1 Outputs**

EF<sub>CO<sub>2</sub></sub> = CO<sub>2</sub> emissions from raw material: **0.0**

Equation N-1: \_\_\_\_\_

This is a screenshot of the Equation N-1 Worksheet that you could use to calculate annual furnace CO<sub>2</sub> emissions.

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 N: Missing data procedures and adding results of verification tests**

Use Subpart N equation spreadsheets to calculate

**DOLomite**

Months that missing data procedures were followed to measure monthly quantities for dolomite: 0 (months)

Method used to determine the fraction of calcination for dolomite: Default value (1.0)

Months that missing data procedures were followed to measure mass fractions for dolomite: 0 (months)

Dolomite Mass Fraction Verification Test: Chemical analysis using X-ray fluorescence

Mass Fraction Average: [None entered]

ADD a Test

**LIMESTONE**

Months that missing data procedures were followed to measure monthly quantities for limestone: 0 (months)

Method used to determine the fraction of calcination for limestone: Default value (1.0)

Months that missing data procedures were followed to measure mass fractions for limestone: 0 (months)

Limestone Mass Fraction Verification Test: [None entered]

# of Samples: [None entered]

Mass Fraction Average: [None entered]

ADD a Test

**SODIUM CARBONATE**

Months that missing data procedures were followed to measure monthly quantities for sodium carbonate: 0 (months)

Method used to determine the fraction of calcination for sodium carbonate: Default value (1.0)

Months that missing data procedures were followed to measure mass fractions for sodium carbonate: 0 (months)

Sodium carbonate Mass Fraction Verification Test: [None entered]

# of Samples: [None entered]

Mass Fraction Average: [None entered]

ADD a Test

FINISH SAVE

\*This list of raw materials charged to the furnace can be edited by returning to the Subpart Overview page, opening the furnace and proceeding to the edit screen.

Okay, let's return to the N-1 form and scroll down further and enter the other remaining data required for this furnace.

As you can see each carbonate-based raw material consumed to produce glass by this furnace is highlighted by a pink box.

For each of these materials, you need to enter the following information on this screen as show by arrows 1, 2 and 3:

- The months that missing data procedures were used to estimate monthly consumption of raw materials;
- The method used to determine the calcination fractions from the options provided;
- The months that missing data procedures were used to determine mass fractions for the raw material; and

Finally, facilities are required to verify mass fraction data provided by raw material suppliers.

To add test data, click on the blue hyperlink "ADD a test" as shown in step 4 on this screen.

## Subpart N: Adding Mass Fraction Verification Results



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Now you will be on the Mass Fraction Verification Test Form.

On this page you will enter two types of information for each verification test:

- the test details, including the data methods and any variations used in the analysis; and
- the test sample results.

If you have results from additional samples you can click on the blue hyperlink below the first sample entry box to “ADD” other samples.

As shown if you choose to use the default provided as an alternative to supplier data, enter default for method and enter 1.0 as mass fraction.

Once you have entered all the required information for this test, hit the green “SAVE” button and you will then return to the Eq. N-1 form.

## Subpart N: Missing data procedures and adding results of verification tests (cont.)



Use Subpart N equation spreadsheets to calculate

**DOLomite**

Months that missing data procedures were followed to measure monthly quantities for dolomite:  (months)

Method used to determine the fraction of calculation for dolomite:

Months that missing data procedures were followed to measure mass fractions for dolomite:  (months)

Dolomite Mass Fraction Verification Test	# of Samples	Mass Fraction Average	Delete
October 21, 2012	1	0.8	

[ADD a Test](#)

**Limestone**

Months that missing data procedures were followed to measure monthly quantities for limestone:  (months)

Method used to determine the fraction of calculation for limestone:

Months that missing data procedures were followed to measure mass fractions for limestone:  (months)

Limestone Mass Fraction Verification Test	# of Samples	Mass Fraction Average	Delete
October 21, 2012	1	0.81	

[ADD a Test](#)

**SODIUM CARBONATE**

Months that missing data procedures were followed to measure monthly quantities for sodium carbonate:  (months)

Method used to determine the fraction of calculation for sodium carbonate:

Months that missing data procedures were followed to measure mass fractions for sodium carbonate:  (months)

Sodium carbonate Mass Fraction Verification Test	# of Samples	Mass Fraction Average	Delete
None entered			

[ADD a Test](#)

[SAVE](#)

This list of raw materials entered on this page can be edited by returning to the Subpart Overview page, opening the furnace and proceeding to the edit screen.

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You will now return to N1 form. You should repeat this procedure to enter the verification test results for each raw material.

Once you have entered all the required information on the Eq. N-1 form, which includes the annual CO<sub>2</sub> emissions, and your use of missing data procedures and verification tests, be sure to hit the green "SAVE" button to accept your entries and selections and then return to the Subpart N overview page.

The screenshot shows the EPA e-GGRT interface for Subpart N: Glass Production reporting. The page includes a navigation menu (HOME, FACILITY REGISTRATION, FACILITY MANAGEMENT, DATA REPORTING) and a user profile (Hello, Mausami Desai). The main content area is titled "Subpart N: Glass Production" and contains an overview of reporting requirements, a summary table for the facility, and a detailed table of glass melting furnaces.

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

**SUBPART N SUMMARY INFORMATION FOR THIS FACILITY**

Number of furnaces	Total annual quantity of glass produced(tons)
1	50,000

**GLASS MELTING FURNACE SUMMARY**

Name/ID	Raw Materials	CO <sub>2</sub> (metric tons)	Status	Delete
Furnace 001	Dolomite, Limestone, Sodium carbonate	44,000	Complete	OPEN ✖

**GLASS MELTING FURNACE SUMMARY (Furnaces monitored by CEMS)**

Name/ID	Raw Materials	Status	Delete
No units have been added			

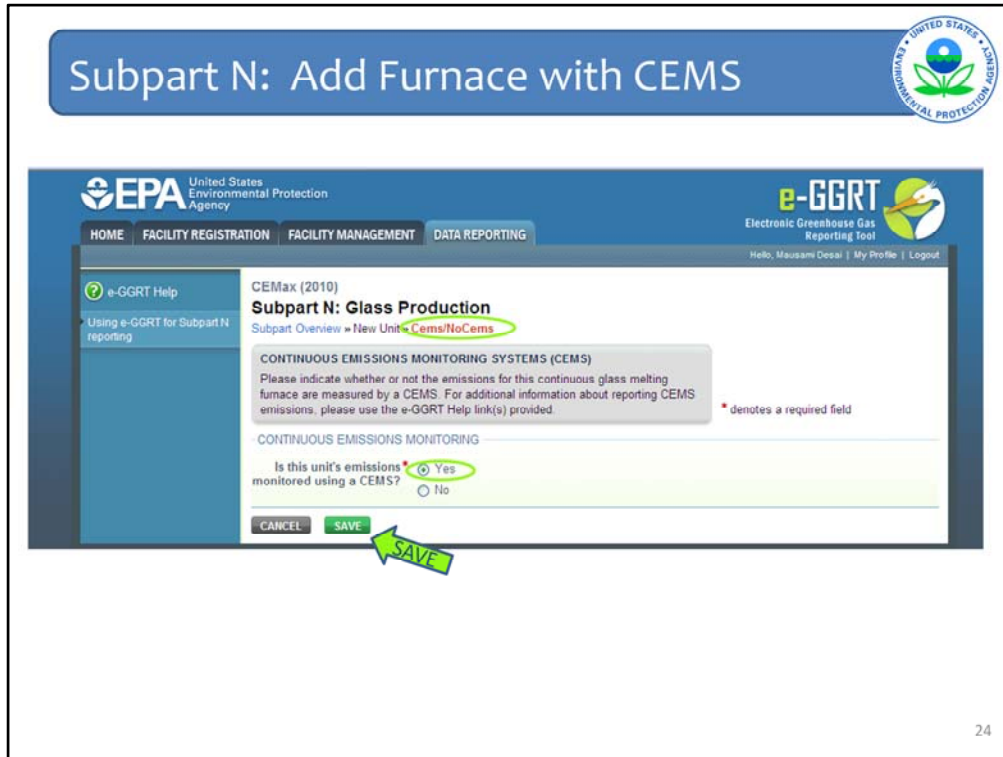
When you return to the Subpart N Overview page you should now see that the “Status” for Furnace 001 has changed to “Complete.” This is good and indicates that you have completed entering information for Furnace 001.

Now let’s enter information for a furnace that is monitored by CEMS.

The screenshot displays the EPA e-GGRT interface for Subpart N: Glass Production. The main content area is titled 'Subpart N: Glass Production' and includes an 'Overview of Subpart Reporting Requirements' section. Below this, there is a 'Subpart N Summary Information for this Facility' table showing 1 furnace and 50,000 tons of glass produced. Two summary tables for glass melting furnaces are present: one for all furnaces (showing 'Furnace 001') and one for furnaces monitored by CEMS (showing 'No units have been added'). A green arrow labeled '1' points to the 'ADD a Furnace Monitored by CEMS' link in the second table.

As in the case of a furnace using equations in Subpart N, under the Glass Melting Furnace Summary table for Furnaces monitored by CEMS, we must first add a furnace.

So, to begin, let's click on the blue hyperlink text to "ADD a Furnace Monitored by CEMS" as shown.



You will then be directed again to the "Cems/NoCems" form. On this form you are asked to confirm the monitoring method for the Glass Melting Furnace is a CEMS.

For this 2nd example, you see that the answer now defaults to "yes" and we will keep this choice.

Remember to then hit the green "SAVE" at the bottom of the page to accept your selection and continue.



**Subpart N: Add Furnace with CEMS**

The screenshot shows the EPA e-GGRT interface for adding a furnace. The page title is "Subpart N: Add Furnace with CEMS". The main content area is titled "CEMMax (2010) Subpart N: Glass Production". A link for "Raw Materials and Glass Produced" is highlighted. The form includes a "CONTINUOUS GLASS MELTING FURNACE INFORMATION" section with a note that Subpart N requires uniquely identifying each furnace. The "UNIT INFORMATION" section contains a "Name or ID\*" field with the value "CEMS Furnace 002", a "Description (optional)" field, and a "Type" dropdown set to "Continuous Glass Melting Furnace". The "CONTINUOUS EMISSIONS MONITORING" section has a radio button for "Yes" selected. A "SAVE" button is highlighted with a green arrow. Four numbered arrows (1-4) point to the "Name or ID" field, the "Annual quantity of glass produced" field, the "Select the raw materials" section, and the "SAVE" button respectively.

Once you select "SAVE" you will be directed to the "Raw Materials and Glass Produced" form to enter more required information for each glass melting furnace using a CEMS.

I will not review this form in detail again, but be sure to complete entry of this form and, confirm again that this furnace IS monitored by CEMS.

Once you have entered all the relevant information and confirmed the method, hit the "SAVE" button to return to the Subpart N Overview page.

**Subpart N: Add CEMS unit and Review Facility Summary**

United States Environmental Protection Agency | e-GGRT Electronic Greenhouse Gas Reporting Tool

HOME | FACILITY REGISTRATION | FACILITY MANAGEMENT | DATA REPORTING

CEMMax (2010) | Subpart N: Glass Production | Subpart Overview

OVERVIEW OF SUBPART REPORTING REQUIREMENTS

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

Subpart N Summary Information for this Facility

Number of Furnaces	Total annual quantity of glass produced (tons)
2	95,000

GLASS MELTING FURNACE SUMMARY

FurnaceID	Raw Materials	CO <sub>2</sub> (metric tons)	Status	Delete
Furnace 001	Dolomite, Limestone, Sodium carbonate	44,000	Complete	OPEN
ADD a Furnace				

GLASS MELTING FURNACE SUMMARY (Furnaces monitored by CEMS)

FurnaceID	Raw Materials	Status	OPEN	Delete
CEMS Furnace 002	Dolomite, Sodium carbonate, Limestone	Incomplete	OPEN	
ADD a Furnace Monitored by CEMS				

CEMS MONITORING LOCATION SUMMARY

CEM Identifier	CEM Configuration	Monitored Unit(s)	Total CO <sub>2</sub> emissions (metric tons)	Status	Delete
No CEMS monitoring locations present					
ADD a CEMS Monitoring Location					

Facility Overview

When you are back on the Subpart N overview page, you should check to confirm that the Subpart N Summary Information table has been updated with information you entered for CEMS Furnace 002. As shown by arrow 1, the table shows two furnaces for this facility and total glass production reflects the sum of the entries for each furnace.

Next, as shown by arrow 2, in the Glass Melting Furnaces Monitored by CEMS summary table you should see the furnace we just entered, including the types of raw materials consumed by this furnace.

As you read across the row you can see that the “Status” field is marked as “Incomplete” for this furnace because we still need to complete entering emissions information for this furnace.

Notice also as shown by arrow number 3 there is now a new table on the overview page titled “CEMS MONITORING LOCATION SUMMARY” table.

Let’s first complete the CEMS FURNACE 002 data entry by clicking the blue “OPEN” button as shown by arrow 4 and then come back to this new table.

The screenshot displays the EPA e-GGRT interface. At the top, a blue banner reads "Subpart N: Add Raw Material Quantities" next to the EPA logo. Below this, the main navigation bar includes "HOME", "FACILITY REGISTRATION", "FACILITY MANAGEMENT", and "DATA REPORTING". The user is logged in as "Mausam Desai".

The central content area is titled "CEMax (2010) Subpart N: Glass Production". A breadcrumb trail shows "Subpart Overview » CEMS Furnace 002 » Annual Quantity", with "Annual Quantity" circled in green. Below this is a section for "GHG DATA AND INFORMATION" with instructions to enter data for a continuous glass melting furnace. A table titled "ANNUAL QUANTITY OF EACH CARBONATE-BASED RAW MATERIAL" contains the following data:

Raw Material	Quantity (tons)
Dolomite	40000
Limestone	48000
Sodium Carbonate	50000

At the bottom of the form, there are "CANCEL" and "SAVE" buttons. A green arrow points to the "SAVE" button. A footnote at the bottom states: "This list of raw materials charged to the furnace can be edited by returning to the Subpart Overview page, opening the furnace and proceeding to the edit screen."

Once you click the "OPEN" button for "CEMS Furnace 002" you will first be directed to the "Annual Quantity" form.

Here you should enter the annual quantity of each raw material charged to this glass melting furnace. The form should list those raw materials you selected when you added this furnace.

Once you have completed this form, hit the green "SAVE" button and return to the Subpart N Overview page.

**Subpart N: Add CEMS Monitoring Location (CML)**

CEMax (2010)  
**Subpart N: Glass Production**  
 Subpart Overview

**OVERVIEW OF SUBPART REPORTING REQUIREMENTS**  
 Subpart N requires affected facilities to report carbon dioxide(CO<sub>2</sub>) process emissions from each continuous glass melting furnace. First, use this page to identify each continuous glass melting furnace and then enter Greenhouse gas (GHG) data required by Subpart N for each continuous glass melting furnace and for your facility. For additional information about Subpart N 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 81350, published Dec. 27, 2010.) E-GGRT currently reflects this proposal, and EPA will make any adjustments necessary to reflect the final rule.

**Subpart N: View Validation**

**SUBPART N SUMMARY INFORMATION FOR THIS FACILITY**

Number of furnaces	Total annual quantity of glass produced(tons)
2	95,000

**GLASS MELTING FURNACE SUMMARY**

Name/ID	Raw Materials	CO <sub>2</sub> (metric tons)	Status	Delete
Furnace 001	Sodium carbonate, Limestone, Dolomite	44,000	Complete	OPEN

[ADD a Furnace](#)

**GLASS MELTING FURNACE SUMMARY (Furnaces monitored by CEMS)**

Name/ID	Raw Materials	Status	Delete
CEMS Furnace 002	Sodium carbonate, Dolomite, Limestone	Complete	OPEN

[ADD a Furnace Monitored by CEMS](#)

**CEMS MONITORING LOCATION SUMMARY**

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

[ADD a CEMS Monitoring Location](#)

[Facility Overview](#)

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When you return to the Subpart N Overview page, the status for the CEMS Furnace 002 should be complete as shown here with a circle.

So let's move to the final data entry section, CEMS Monitoring Location Summary table.


Here you should add information which is required by Subpart C, Tier 4 method, including annual emissions. Click on the blue hyperlink as shown on this screen to "ADD a CEMS Monitoring Location."

You will now be on the “CEMS Monitoring Location” page.

Complete this long form by entering all of the information as appropriate for your CEMS unit. This page reflects the reporting requirements for using the Tier 4 method required by Subpart C. As you proceed entering information on this page, dropdown menus and automated calendars are available for convenience.

The first step, shown by arrow 1, is identifying the CEMS configuration. Is the CEMS unit monitoring a single furnace or monitoring multiple furnaces sharing a common stack? In this example, we have a CEMS that is monitoring emissions from a single glass melting furnace, so we made the appropriate selection from the drop down list.

All data must be entered to have a complete data profile as shown by arrows 2, 3, and 4. This includes, the start and end dates associated with this location, the quarterly CO2 emissions, annual CO2 emissions, and any biogenic emissions.



## Subpart N: Add CML GHG Emissions (cont.)

5

6

7

**ANNUAL CO<sub>2</sub> EMISSIONS**

Total annual CO<sub>2</sub> mass emissions (biogenic and non-biogenic) measured by the CEES  (metric tons)

Check this box to indicate that the emissions reported for the CEES include emissions calculated according to 98.33(a)(4)(vi) for a slipstream that bypassed the CEES.

Total annual biogenic CO<sub>2</sub> mass emissions  (metric tons)

Total annual non-biogenic CO<sub>2</sub> mass emissions (includes fossil fuel, sorbent, and process CO<sub>2</sub> emissions)  (metric tons)

---

**EQUATION C-10 SUMMARY AND RESULTS**

$CH_4 \text{ or } H_2O = 0.001 \cdot (H)_i \cdot EF$

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

Enter CH<sub>4</sub> and H<sub>2</sub>O emissions from only combustion of Table C-2 Fuels directly below. If there are no combustion emissions from Table C-2 Fuels in this CEIS Monitoring Location, please enter 0.

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

Total H<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)

---

**CEIS MONITORING LOCATION PROCESS UNITS**

[Process Unit Name/Identifier](#)

There are no process units monitored by CEIS available for selection.


[+ADD/REMOVE/EDIT](#) a process unit that exhausts to this CEIS Monitoring Location

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As you scroll down the screen or form you will see additional data entry cells for CH<sub>4</sub> and N<sub>2</sub>O emissions and additional emissions information as shown by arrows 5 and 6.

Again, you can download the optional calculation worksheets using the links provided to determine some of the data inputs required to calculate the total annual emissions, which you will enter into these cells as shown.

Subpart N: Linking CML to Furnace



---

**ANNUAL CO<sub>2</sub> EMISSIONS**

Total annual CO<sub>2</sub> mass emissions (biogenic and non-biogenic) measured by the CEMS  (metric tons)

Check this box to indicate that the emissions reported for the CEMS include emissions calculated according to 98.33(a)(4)(vi) for a slipstream that bypassed the CEMS.

Total annual biogenic CO<sub>2</sub> mass emissions  (metric tons)

Total annual non-biogenic CO<sub>2</sub> mass emissions (includes fossil fuel, sorbent, and process CO<sub>2</sub> emissions)  (metric tons)

---

**EQUATION C-10 SUMMARY AND RESULTS**

$CH_4 \text{ or } H_2O = 0.001 \cdot (H)_{ij} \cdot EF$

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

Enter CH<sub>4</sub> and H<sub>2</sub>O emissions from only combustion of Table C-2 Fuels directly below. If there are no combustion emissions from Table C-2 Fuels in this CEMS Monitoring Location, please enter 0.

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

Total H<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](#)

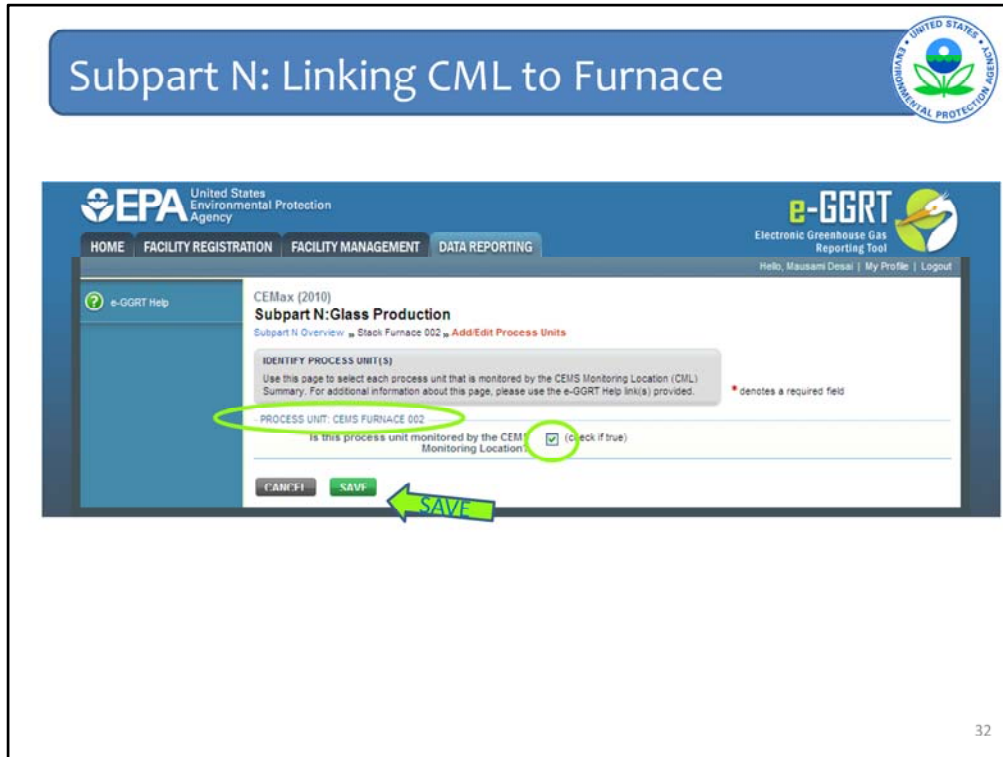
There are no process units monitored by CEMS available for selection.

[+ADD/REMOVE/EDIT a process unit that exhausts to this CEMS Monitoring Location](#)

7 →

The final step at the bottom of this form -- shown by arrow 7-- is to link the emissions monitored by the CEMS to the appropriate furnace or furnaces.

To link this location to a furnace click the "Add/Remove a process unit that exhausts to this CEMS monitoring location" hyperlink.



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

If more than one furnace was monitored by CEMS you would see it listed here as well, similar to the unit that is circled. We have only entered 1 furnace monitored by a CEMS – so that is what e-GGRT displays here.

Click the checkbox to link the CEMS monitoring location we just entered Stack-Furnace 002 to this furnace.

Be sure again to hit the green “SAVE” button to return to the CEMS MONITORING LOCATION form.



**Subpart N: Linking CML to Furnace**

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Total annual biogenic CO<sub>2</sub> mass emissions  (metric tons)

Total annual non-biogenic CO<sub>2</sub> mass emissions (includes fossil fuel, sorbent, and process CO<sub>2</sub> emissions)  (metric tons)

EQUATION C-10 SUMMARY AND RESULTS

$CH_4 \text{ or } H_2O * 0.001 * (H)_A * EF$

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

Enter CH<sub>4</sub> and H<sub>2</sub>O emissions from only combustion of Table C-2 Fuels directly below. If there are no combustion emissions from Table C-2 Fuels in this CEMS Monitoring Location, please enter 0.

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

Total H<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	Monitoring Location
CEMS Furnace 002	CEMS Monitoring Location

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

Cancel Save

1 CHECK

SAVE

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When you return to the CEMS MONITORING LOCATION form – Scroll down to the bottom of the page and you should see the CEMS Furnace 002 now linked to this monitoring location in the table as shown.

This means that the emissions from CEMS Furnace 002 are vented to the stack that is monitoring by this CEMS.

If multiple units vent to a single stack, then you can add additional units to this table 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 need to link a furnace to this monitoring location.

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

**Subpart N: Glass Production**  
**Subpart Overview**

**OVERVIEW OF SUBPART REPORTING REQUIREMENTS**  
 Subpart N requires affected facilities to report carbon dioxide(CO<sub>2</sub>) process emissions from each continuous glass melting furnace. First, use this page to identify each continuous glass melting furnace and then enter Greenhouse gas (GHG) data required by Subpart N for each continuous glass melting furnace and for your facility. For additional information about Subpart N 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 81350, published Dec. 27, 2010.) E-GGRT currently reflects this proposal, and EPA will make any adjustments necessary to reflect the final rule.

**Check** **Subpart N: View Validation**

**SUBPART N SUMMARY INFORMATION FOR THIS FACILITY**

Number of furnaces	Total annual quantity of glass produced(tons)
2	95,000 <a href="#">OPEN</a>

**GLASS MELTING FURNACE SUMMARY**

Name/ID	Raw Materials	CO <sub>2</sub> (metric tons)	Status	Delete
<a href="#">Furnace 001</a>	Dolomite, Limestone, Sodium carbonate	44,000	Complete	<a href="#">OPEN</a> ✖

[ADD a Furnace](#)

**GLASS MELTING FURNACE SUMMARY (Furnaces monitored by CEMS)**

Name/ID	Raw Materials	Status	Delete
<a href="#">CEMS Furnace 002</a>	Limestone, Sodium carbonate, Dolomite	Complete	<a href="#">OPEN</a> ✖

[ADD a Furnace Monitored by CEMS](#)

**CEMS MONITORING LOCATION SUMMARY**

CML Name/Identifier	CML Configuration	Monitored Unit(s)	Total CO <sub>2</sub> emissions (metric tons)	Status	Delete
<a href="#">Stack -Furnace 002</a>	Single process/process unit exhausts to dedicated stack	CEMS Furnace 002	95,410	Complete	1 ✖

[ADD a CEMS Monitoring Location](#)

[Facility Overview](#)

Once you return to the Subpart N overview page, if you have completed data entry for the CEMS monitoring location page, you should see that the status column indicate that data entry is complete as shown on this screen with the circle marked with a number 1.

Since we have entered most of the necessary information and our tables indicate that data entry is complete, it is a good time to check the Validation Box as shown by arrow 2.

It turns out that we have some messages, since the validation box is red and shows an exclamation mark. This indicates that either all data is not entered or there are errors and there is information you should review. So let's check the validation report by clicking on the blue hyperlinked text "View Validation"

**Subpart N: View Validation Messages**

United States Environmental Protection Agency | e-GGRT Electronic Greenhouse Gas Reporting Tool

HOME | FACILITY REGISTRATION | FACILITY MANAGEMENT | DATA REPORTING

CEMMax (2010)  
Subpart N: Glass Production  
Subpart Overview » Validation Report

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

**FACILITY-LEVEL VALIDATION MESSAGES**

Validation Type <sup>1</sup>	ID <sup>2</sup>	Message <sup>3</sup>
Data Completeness	N001	Annual quantity of limestone charged to all furnaces. This data element is required.
Data Completeness	N004	Annual quantity of dolomite charged to all furnaces. This data element is required.
Data Completeness	N007	Annual quantity of sodium carbonate charged to all furnaces. This data element is required.
Data Completeness	N010	Annual quantity of barium carbonate charged to all furnaces. This data element is required.
Data Completeness	N012	Annual quantity of potassium carbonate charged to all furnaces. This data element is required.
Data Completeness	N014	Annual quantity of lithium carbonate charged to all furnaces. This data element is required.
Data Completeness	N015	Annual quantity of strontium carbonate charged to all furnaces. This data element is required.

**CML-LEVEL VALIDATION MESSAGES**

Validation Type <sup>1</sup>	ID <sup>2</sup>	CML Name	Message <sup>3</sup>
No CML level validation messages.			

**EQUATION-LEVEL VALIDATION MESSAGES**

Validation Type <sup>1</sup>	Furnace	Equation	ID <sup>2</sup>	Message <sup>3</sup>
No equation-level validation messages found.				

Subpart Overview **RETURN**

<sup>1</sup> Validation Types: e-GGRT generates a variety of validation types, defined below:  
 • Data Completeness: data required for reporting is missing or incomplete.  
 • Data Quality: data is outside of the range of expected values. The value you have provided is outside the EPA estimated range for this data element. Please double check this value and revise, if necessary. If you believe it to be correct, please submit the value as is.  
 • Screen Error: a data value or combination of data values prevents e-GGRT from continuing to the next page. Typically, this will not appear on the Validation Report, but instead will be displayed on the data entry page at the time the error was created.

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You will now be on the Subpart N Validation Report page.

There are many validation messages that could be generated based on the data you have entered for subpart N. As you can see from reviewing this page, the messages are grouped into three overall categories:

1. Facility level messages
2. CML-level messages (CML is short for CEMS Monitoring Location)
3. Equation-level validation messages.

Currently, in this session, we have 7 data completeness messages associated with facility level information.


Notice that each message text is also a hyperlink to the e-GGRT page where the warning was generated.

You may also receive a data quality message that indicates that particular values you entered fall outside of an EPA estimate range. In those cases, you should check the data for any errors or typos, but, if you believe the data to be correct, then you should still submit that data.

We are seeing these 7 messages because we have not completely entered facility level information in the first summary table on the Subpart N Overview page. If you recall we identified this as the final step for completing the Subpart N reporting process.

So let's return to the Subpart N Overview page to complete entering in this information by clicking on the blue "Subpart Overview" button as shown.

# Subpart N Reporting: Complete Facility Summary



e-GGRT Help

Using e-GGRT for Subpart N Reporting

CEMax (2010)

## Subpart N: Glass Production

**Subpart Overview**

**OVERVIEW OF SUBPART REPORTING REQUIREMENTS**  
 Subpart N requires affected facilities to report carbon dioxide(CO<sub>2</sub>) process emissions from each continuous glass melting furnace. First, use this page to identify each continuous glass melting furnace and then enter Greenhouse gas (GHG) data required by Subpart N for each continuous glass melting furnace and for your facility. For additional information about Subpart N 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 81350, published Dec. 27, 2010). E-GGRT currently reflects this proposal, and EPA will make any adjustments necessary to reflect the final rule.

Subpart N: View Validation

**SUBPART N SUMMARY INFORMATION FOR THIS FACILITY**

Number of furnaces	Total annual quantity of glass produced(tons)
2	95,000

← Final Step

**GLASS MELTING FURNACE SUMMARY**

Name/ID	Raw Materials	CO <sub>2</sub> (metric tons)	Status	Delete
Furnace 001	Dolomite, Limestone, Sodium carbonate	44,000	Complete	OPEN ✖

ADD a Furnace

**GLASS MELTING FURNACE SUMMARY (Furnaces monitored by CEMS)**

Name/ID	Raw Materials	Status	Delete
CEMS Furnace 002	Limestone, Sodium carbonate, Dolomite	Complete	OPEN ✖

ADD a Furnace Monitored by CEMS

**CEMS MONITORING LOCATION SUMMARY**

CML Name/Identifier	CML Configuration	Monitored Unit(s)	Total CO <sub>2</sub> emissions (metric tons)	Status	Delete
Stack -Furnace 002	Single process/process unit exhausts to dedicated stack	CEMS Furnace 002	95,480	Complete	✖

ADD a CEMS Monitoring Location

← Facility Overview

Okay, we are now back on the overview page.

To finish entering the remaining required information, click on the blue “OPEN” button in the subpart N Summary Information table as shown by the arrow marked “final step.”

**Subpart N: Facility Summary Information Form**

EPA United States Environmental Protection Agency

e-GGRT Electronic Greenhouse Gas Reporting Tool

HOME FACILITY REGISTRATION FACILITY MANAGEMENT DATA REPORTING

CEMax (2010)

**Subpart N: Glass Production**

Subpart Overview • **Subpart N Summary Information**

**SUBPART N SUMMARY INFORMATION FOR THIS FACILITY**

Subpart N requires a facility to report the facility information described below. For additional information about the facility information required by Subpart N, please use the e-GGRT Help link(s) provided.

Number of furnaces

Annual quantity of glass produced across all furnaces  (tons)

ANNUAL QUANTITY OF CARBONATE-BASED RAWMATERIALS CHARGED ACROSS ALL FURNACES

Limestone	<input type="text" value="80000"/>	(tons)
Dolomite	<input type="text" value="70000"/>	(tons)
Sodium Carbonate	<input type="text" value="90000"/>	(tons)
Barium Carbonate	<input type="text" value="0"/>	(tons)
Strontium Carbonate	<input type="text" value="0"/>	(tons)
Lithium Carbonate	<input type="text" value="0"/>	(tons)
Potassium Carbonate	<input type="text" value="0"/>	(tons)

CANCEL **SAVE**

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The summary form should now be open and pre-populated with the number of furnaces and the “annual quantity of glass produced across all furnaces” based on the information you have entered so far. You should review this information as indicated by arrow number 1.

Next as shown by arrow number 2, you should enter the annual quantity of raw materials charged across all furnaces.

As with other forms, confirm your entries by hitting save to return to the Subpart N Overview page.

**Subpart N: Complete form**

CEMax (2010)  
**Subpart N: Glass Production**  
 Subpart Overview

**OVERVIEW OF SUBPART REPORTING REQUIREMENTS**  
 Subpart N requires affected facilities to report carbon dioxide(CO<sub>2</sub>) process emissions from each continuous glass melting furnace. First, use this page to identify each continuous glass melting furnace and then enter Greenhouse gas (GHG) data required by Subpart N for each continuous glass melting furnace and for your facility. For additional information about Subpart N 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 81350, published Dec. 27, 2010.) e-GGRT currently reflects the proposal, and EPA will make any adjustments necessary to reflect the final rule.

**Subpart N: No Validation Messages**

**SUBPART N SUMMARY INFORMATION FOR THIS FACILITY**

Number of furnaces	Total annual quantity of glass produced(tons)
2	95,000

**GLASS MELTING FURNACE SUMMARY**

Name/ID	Raw Materials	CO <sub>2</sub> (metric tons)	Status	Delete
Furnace 001	Sodium carbonate, Limestone, Dolomite	44,000	Complete	OPEN ✖

**GLASS MELTING FURNACE SUMMARY (Furnaces monitored by CEMS)**

Name/ID	Raw Materials	Status	Delete
CEMS Furnace 002	Dolomite, Limestone, Sodium carbonate	Complete	OPEN ✖

**CEMS MONITORING LOCATION SUMMARY**

CML Name/Identifier	CML Configuration	Monitored Unit(s)	Total CO <sub>2</sub> emissions (metric tons)	Status	Delete
Stack-Furnace 002	Single process/process unit exhausts to dedicated stack	CEMS Furnace 002	95,480	Complete	✖

Facility Overview **RETURN**

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Now when you return to the Subpart N overview page, you will see that you no longer have any validation messages.

You have now completed all data entry for Subpart N and can return to the Facility Overview page to finish data entry for any other applicable subparts.

## Subpart N: Return to Facility Overview



**CEMax (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 entry via e-GGRT web-forms (Change)

**REPORT DATA**

2010 Reporting Subpart	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—Glass 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

**VIEW GHG DETAILS**

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When you return to the facility overview page, you can view the details of your emissions using the “VIEW GHG DETAILS” button, as shown earlier. You can also proceed to generate your annual emissions report, which is presented in the e-GGRT Overview Training Webinar.

We will not review these steps as they are demonstrated in this general webinar. See the training and testing opportunities website to download other webinars - <http://www.epa.gov/climatechange/emissions/training.html>.

## Subpart N: 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 N Resources
  - <http://www.epa.gov/ghgreporting/reporters/subpart/n.html>

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

**Here are some additional links.**