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.

Webinar Outline / Overview

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

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

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

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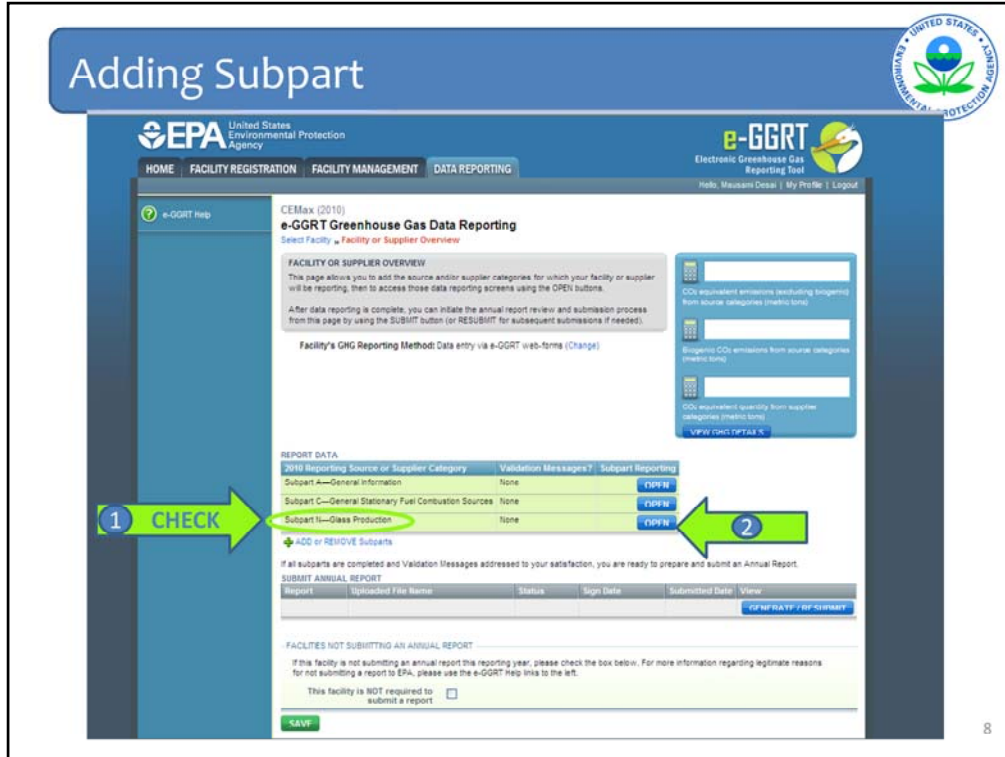
On the Facility Overview page you should now see Subpart N Glass Production listed in the Report Data table.

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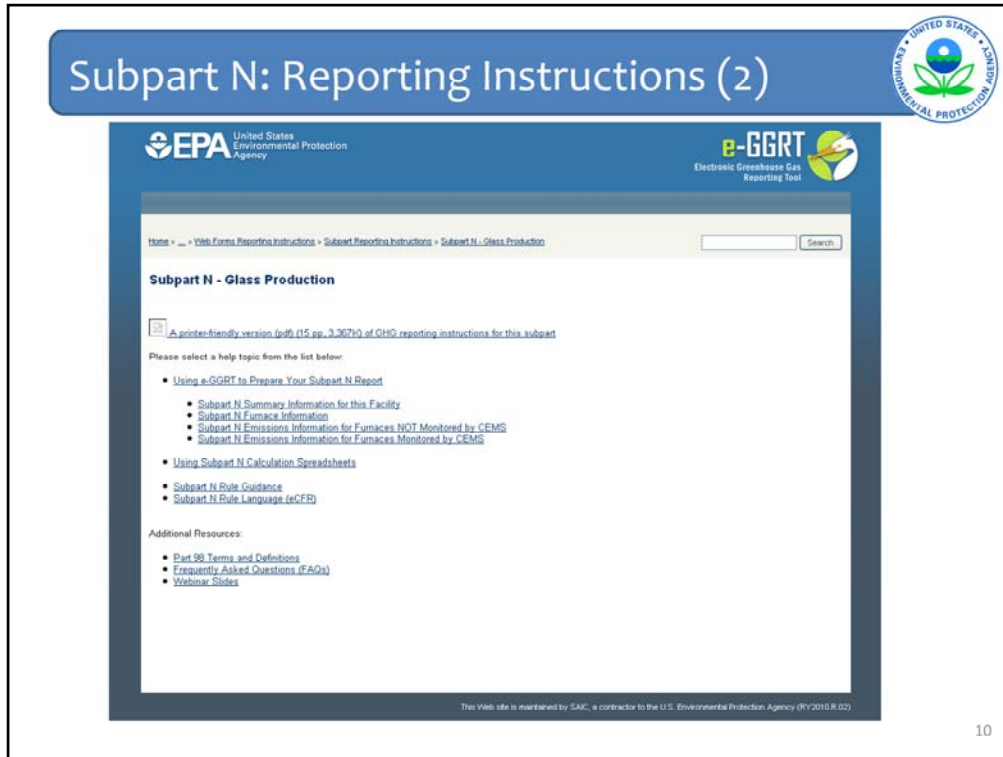
On the next page, you will see a question mark in the left hand corner of the screen in the blue side bar along the web form. By clicking here, you can get additional help or link to Reporting Instructions for Subpart N.

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.

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.

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.

Subpart N Reporting: Add Non-CEMS Furnace
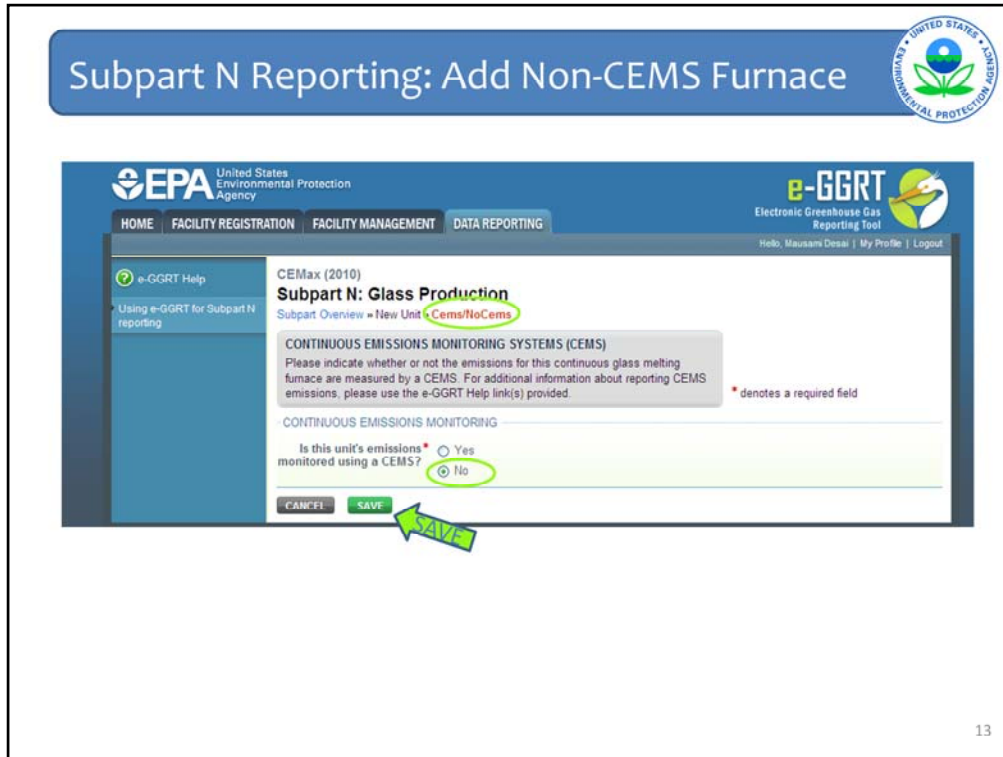
After selecting "Add a Furnace" you will be directed to the CEMS/NoCEMS form where you should confirm that the monitoring method for the Glass Melting Furnace is not CEMS. This form will default to the answer no.

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.

Subpart N: Add/Edit Furnace Information

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.

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 CO2 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 CO2 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.

- 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

This is a screenshot of the Equation N-1 Worksheet that you could use to calculate annual furnace CO2 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.

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.

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.

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 CO2 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.

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.

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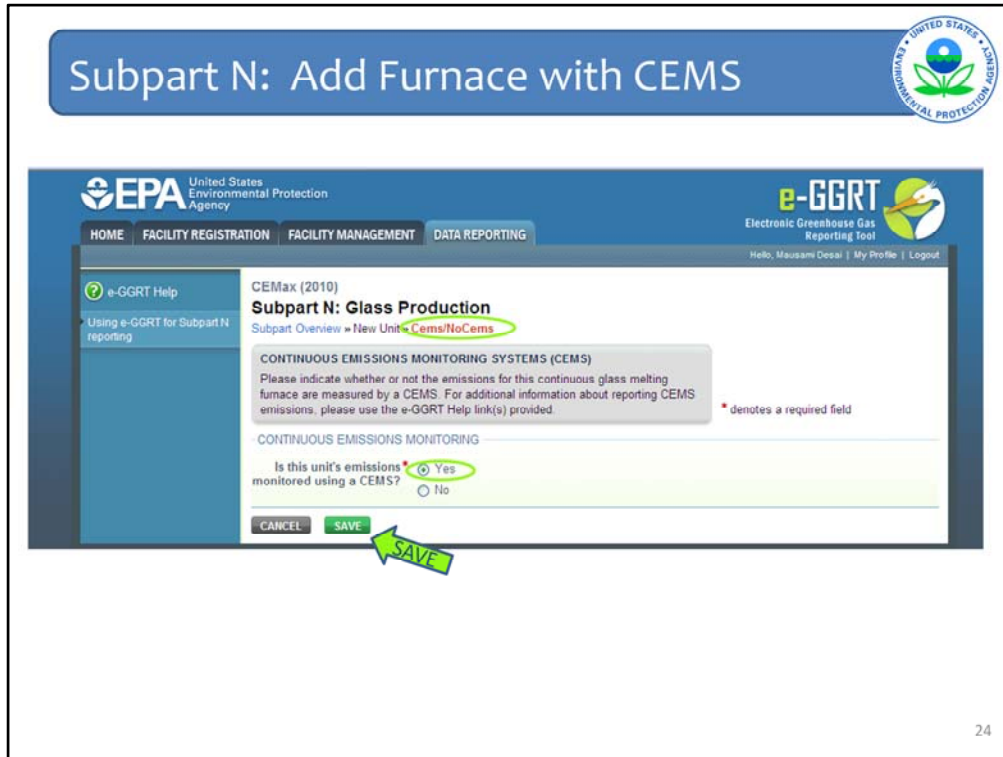
You will then be directed again to the "Cems/NoCems" form. On this form you are asked to confirm the monitoring method for the Glass Melting Furnace is a CEMS.

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.

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.

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.

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.

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.)

As you scroll down the screen or form you will see additional data entry cells for CH4 and N2O 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.

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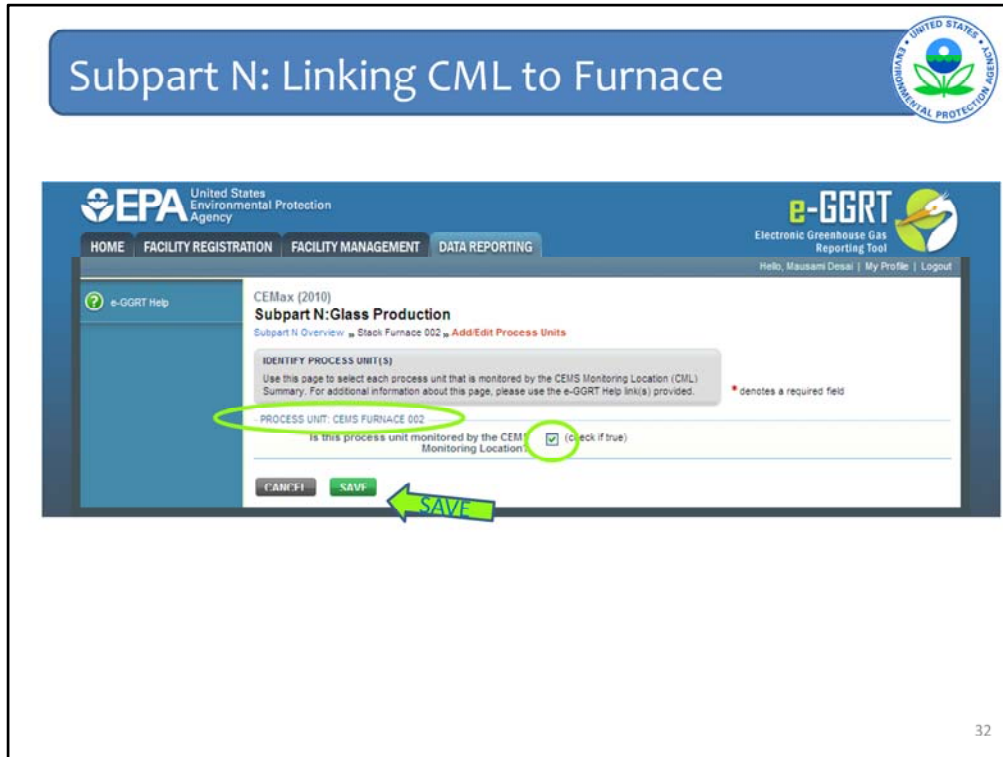
This selection will open up to this simple form you see here.

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.

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.

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

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.

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."

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

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.

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

- GHG Reporting Program Information & Help
  - www.epa.gov/ghgreporting/reporters/index.html
  - Email: ghgreporting@epa.gov

- Read more about XML Upload Option
  - http://www.epa.gov/ghgreporting/reporters/datasystem/e-ggrt_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.