



## **e-GGRT Training Webinar on Reporting GHG Data for Subparts C & D**

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

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## Presentation Highlights



- Adding Subparts
- Subpart C Adding a Configuration
- Subpart C Entering Emissions Information
- Subpart D Reporting
- Data Validation
- Emission Roll-ups

# Adding Subparts



**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)

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

**REPORT DATA**

2010 Reporting Source or Supplier Category	Validation Messages?	Subpart Reporting
Subpart A—General Information	<a href="#">View Messages</a>	<a href="#">OPEN</a>
Subpart C—General Stationary Fuel Combustion Sources	<a href="#">View Messages</a>	<a href="#">OPEN</a>
Subpart D—Electricity Generation	<a href="#">View Messages</a>	<a href="#">OPEN</a>

[ADD or REMOVE Subparts](#)

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

**SUBMIT ANNUAL REPORT**

Report	Uploaded File Name	Status	Submitted Date	Certification Date	
2010 Annual Report v1		Ready for review			<a href="#">GENERATE / SUBMIT</a>

**FACILITIES NOT SUBMITTING AN ANNUAL REPORT**

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

This facility is NOT required to submit a report

[SAVE](#)



4,452,825.5  
CO<sub>2</sub> equivalent emissions (excluding biogenic) from subparts C - HH (metric tons)

166,500.0  
Biogenic CO<sub>2</sub> emissions from subparts C - HH (metric tons)

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

[VIEW GHG DETAILS](#)

EPA Test Fac C & D (2010)  
**e-GGRT Greenhouse Gas Data Reporting**  
 Select Facility » Facility Overview » Subpart Selection

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

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

**SOURCE CATEGORIES**

- D—Electricity Generation  
Description ( [SHOW](#) | [HIDE](#) )
- E—Adipic Acid Production  
Description ( [SHOW](#) | [HIDE](#) )
- F—Aluminum Production  
Description ( [SHOW](#) | [HIDE](#) )
- G—Ammonia Manufacturing  
Description ( [SHOW](#) | [HIDE](#) )
- H—Cement Production  
Description ( [SHOW](#) | [HIDE](#) )

**GENERAL STATIONARY FUEL COMBUSTION**

- C—General Stationary Fuel Combustion (Standard Reporting)  
Description ( [SHOW](#) | [HIDE](#) )
- C—General Stationary Fuel Combustion (Abbreviated Reporting)  
Description ( [SHOW](#) | [HIDE](#) )

**LANDFILLS**

- HH—Municipal Solid Waste Landfills  
Description ( [SHOW](#) | [HIDE](#) )

**SUPPLIER CATEGORIES**

- LL—Suppliers of Coal-based Liquid Fuels  
Description ( [SHOW](#) | [HIDE](#) )

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Before we can open the subpart C and D modules, we must select them on the subpart selection page. After checking the boxes for subparts C and D, we click save on the bottom of the screen.

Unselecting a subpart will cause all data that had been previously added in a subpart to be deleted. To prevent accidental deletion, a warning message will appear after unchecking a subpart.

# Accessing Subparts C and D in E-GGRT



EPA Test Fac Abbreviated C (2010)  
**e-GGRT Greenhouse Gas Data Reporting**  
Select Facility + Facility or Supplier Overview

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

CO<sub>2</sub> equivalent emissions (excluding Biogenic from source categories) (Metric tons) 0  
Biogenic CO<sub>2</sub> emissions from source categories (Metric tons) 0  
CO<sub>2</sub> equivalent quantity from supplier categories (Metric tons) 0  
VIEW GHG DETAILS

**REPORT DATA**

CO <sub>2</sub> Reporting Source or Supplier Category	Validation Messages?	Subpart Reporting
Subpart A—General Information	View Messages	
Subpart C—General Stationary Fuel Combustion Sources	None	OPEN
Subpart D—Electricity Generation	None	OPEN

ADD + REMOVE Subparts

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

**SUBMIT ANNUAL REPORT**

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

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

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After adding the subparts, they will appear on the Facility Overview page. To access the subpart C and D overview pages, we can click on the open buttons on the right side of the screen.

Next we will discuss when the subpart C and D modules should be used.



# Using Subparts C and D in E-GGRT

## When to Use Subpart C Module



- Report all emissions from stationary fuel combustion sources under the subpart C module
- If you calculate emissions according to multiple subparts you must add each subpart in e-GGRT and report emissions under the respective subpart
  - For example, If you have subpart C and D units, you must report the subpart D units under the subpart D module and the subpart C units under the subpart C module

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The subpart C reporting module is designed to fulfill the reporting requirements specified in subpart C of part 98.

Facilities will report all emissions from stationary fuel combustion sources under the subpart C module.

## Exceptions to Using Subpart C



- Units exempted from reporting combustion emissions under 40 CFR 98.30(b)
- Electricity generating units subject to subpart D
- Combustion units that exhaust to a CEMS that monitors both combustion emissions and process emissions from another subpart
  - CEMS Monitoring Location (CML)
  - Report all emissions under the subpart with the process emissions
  - For example, a cement kiln that has both process and combustion emissions measured by a CEMS will be reported under Subpart H

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The following sources are exceptions to reporting under the subpart C module:

Unit types that are listed in 40 CFR 98.30(b) are exempted from reporting emissions under subpart C.

Electricity generating units subject to subpart D will not use the subpart C reporting module, instead such units should use the subpart D module.

Combustion units that exhaust to a CEMS that monitors both combustion CO<sub>2</sub> emissions and process CO<sub>2</sub> emissions, and where the process CO<sub>2</sub> emissions are reported under a separate subpart. In this situation, the emissions measured by the CEMS will be reported under the subpart in which the process emissions must be reported. For example, a cement kiln that has both process and combustion CO<sub>2</sub> emissions monitored by the same CEMS, will have all emissions reported under subpart H.

Lastly, if a process unit calculates emissions according to another subpart and the calculated emissions include combustion emissions, the rule may not require separate reporting of the combustion emissions. If that is the case, the combustion emissions should not be separately reported under subpart C. This only includes situations where the combustion emissions are explicitly included as process emissions calculated according to another subpart. If a facility contains both combustion and process units, and emissions are calculated separately, the combustion emissions would be reported under subpart C as required by the rule.

## When to Use Subpart D Module



- Report the following sources under the subpart D module
  - Electricity generating units that are subject to the requirements of the Acid Rain Program
  - Any other electricity generating units that are required to monitor and report to EPA CO<sub>2</sub> mass emissions year-round according to 40 CFR part 75 (i.e. RGGI units)
- The following sources should not be reported under the subpart D module
  - Electricity generating units that do not meet either of the criteria listed above
  - Report these sources under subpart C

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The subpart D module is similar to the subpart C module, but is designed to satisfy the specific reporting requirements of units subject to the requirements of subpart D.

Subpart D includes electricity generating units that are subject to the requirements of the Acid Rain Program, and any other electricity generating units that are required to monitor and report to EPA CO<sub>2</sub> mass emissions year-round according to 40 CFR part 75. For example, RGGI units.

Subpart D does not include electricity generating units that are not in the Acid Rain Program, and that do not report CO<sub>2</sub> mass emissions year-round according to 40 CFR Part 75. These sources should be reported under the subpart C module, as applicable.



# Adding a Subpart C Configuration

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Once the subpart C Module has been selected in e-GGRT, the starting point in subpart C is to add a reporting configuration.

## Subpart C Configurations



- Subpart C offers 6 different reporting options, known as **Configurations** in e-GGRT
- The different reporting options (configurations) are provided in 40 CFR 98.36(b) – (c)

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The subpart C reporting module revolves heavily around 6 different reporting options that are known as configurations in e-GGRT. The reporting options, or configurations, refer to individual units or groups of units that are grouped together for the purposes of reporting under subpart C. The configurations provided in e-GGRT are an incorporation of the different reporting options provided in 40 CFR 98.36.

## Configuration Types



- Single Unit Using Tiers 1, 2, or 3 [98.36(b)]
- Single Unit Using Tier 4 (CEMS) [98.36(b)]
- Aggregation of Units [98.36(c)(1)]
- Common Pipe [98.36(c)(2)]
- Common Stack or Duct (CEMS) [98.36(c)(3)]
- Alternative Part 75 Reporters [98.36(d)(2)]

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This screen lists the six reporting configurations that are available in e-GGRT. Next to each configuration type is the rule reference that describes each reporting option. For more information on the specific reporting options, please see the rule references provided. Additional information is also provided in the e-GGRT reporting instructions.

## Configuration Functionality



- Two levels of emissions reporting for each configuration
  - Configuration-Level and Fuel-Specific
  - Both required for all configurations
- Reporting requirements vary by configuration type
- If a subpart C configuration includes multiple units, no unit level emission reporting is required for that grouping
- A facility may have more than one type of configuration and multiple configurations of any type

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For each configuration, there are two levels of emission reporting: there is a configuration-level reporting requirement which is aggregated emissions numbers for a configuration and then there are fuel-specific reporting requirements for each configuration. The exact requirements for emissions reporting will vary by configuration type.

If a configuration includes multiple units, no unit-level emission reporting is required for that grouping.

A facility may have more than one type of configuration and multiple configurations of any type.

## Two Levels of Emission Reporting



- Configuration-Level
  - Reported once for each configuration
  - Varies by configuration type
- Fuel-Specific
  - Reported for each fuel combusted in a given configuration
  - Varies by tier and fuel type
- Both levels are required

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For each configuration, E-GGRT provides two different, but required paths for reporting emissions under subpart C. The first path is configuration-level emissions reporting. These emissions will be reported once for each configuration and the requirements will vary by configuration type.

The other path is that of fuel-specific emission reporting. Emissions will be reported for each fuel combusted in the configuration and the requirements will vary by tier and by fuel type.

In the following screens we will show how to add a configuration of the type “Single Unit Using Tier 4”.

## Adding a Single Unit Using Tier 4



Subpart C Overview

Click "Add a Configuration"

Select Configuration Type and "Next"

Input Configuration ID Info And "Save"

Configuration Overview

EPA Test Fac Abbreviated C (2010)

### Subpart C: General Stationary Fuel Combustion

**Subpart C Overview**

**OVERVIEW OF SUBPART C REPORTING REQUIREMENTS**

Subpart C requires affected facilities to report annual carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), and nitrous oxide (N<sub>2</sub>O) emissions from each stationary combustion unit. First, use this page to identify each stationary combustion reporting configuration (reporting options listed in §98.36) and then enter emissions information required by subpart C for each configuration.

For additional information about subpart C reporting, please use the e-GGRT Help link(s) provided.

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

[Subpart C: View Validation](#)

**CONFIGURATION SUMMARY**

Configuration Name or ID	Configuration Type	Status <sup>1</sup>	Delete
No units present			
<a href="#">Add a Configuration</a> <a href="#">← Facility Overview</a>			

<sup>1</sup> A status of "Incomplete" means that one or more required data elements are incomplete. For details, refer to the Data Completeness validation messages in your Validation Report by clicking the "View Validation" link above (Note: if there are no validation messages for this subpart you will not see this link).

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e-GGRT RY2010 R.62 | SPC-01

The starting point for adding a configuration is the Subpart C Overview page, which is shown on this slide. The Subpart C Overview page may be accessed by adding the subpart C source category and then opening it on the facility overview page. From the subpart C overview page, the first step is to click the "Add a Configuration" button located under the Configuration Summary table.

**Adding a Single Unit Using Tier 4**

EPA Test Fac Abbreviated C (2010)  
**Subpart C: General Stationary Fuel Combustion**  
 Subpart C Overview » [New Configuration](#)

**SUBPART C REPORTING CONFIGURATIONS**  
 For stationary combustion sources required to report under subpart C, e-GGRT requires a facility to identify which reporting option each unit or group of units will be using to report emissions. The different subpart C reporting options are referred to as configurations in e-GGRT. The individual configurations are designed to match the reporting options made available by the rule in 40 CFR 98.36.

Once a configuration is added, e-GGRT will allow the user to enter the required reporting elements for the configuration type selected. A facility may have multiple configuration types and/or multiple configurations of any given type.

For additional information about adding and editing a configuration and the different reporting configurations available, please use the e-GGRT Help link(s) provided.

**SELECT A REPORTING CONFIGURATION**

Select	Reporting Configuration Type	Calculation Methodology	Rule Reference
<input type="radio"/>	Single Unit Using Tiers 1, 2, or 3	Tier 1, 2, or 3	98.36(b)
<input type="radio"/>	Single Unit Using Tier 4 (CEMS)	Tier 4	98.36(b)
<input type="radio"/>	Aggregation of Units	Tier 1, 2, or 3	98.36(c)(1)
<input type="radio"/>	Common Pipe	Tier 1, 2, or 3	98.36(c)(3)
<input type="radio"/>	Common Stack or Duct (CEMS)	Tier 4	98.36(c)(2)
<input type="radio"/>	Alternative Part 75 Reporters	98.33(a)(5)	98.36(d)(2)

CANCEL **NEXT**

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Next, the user must select the type of configuration they wish to add. Once a configuration has been added, the user may not change that configuration to another type. If the user wishes to change the type of an existing configuration, that configuration would have to be deleted and a new configuration would need to be added.

For this example, a Single Unit Using Tier 4 is selected. Once the selection has been made, you may click the “next” button and continue to the following page.

**Adding a Single Unit Using Tier 4**

**Subpart C Overview**

Click "Add a Configuration"

Select Configuration Type and "Next"

Input Configuration ID Info And "Save"

Configuration Overview

EPA Test Fac Abbreviated C (2010)  
**Subpart C: General Stationary Fuel Combustion**  
 Subpart C Overview » Single Unit Using Tier 4 (CEMS) » **Edit Configuration Information**

**CONFIGURATION INFORMATION**

For stationary combustion sources required to report under subpart C, e-GGRT requires a facility to identify which reporting option each unit or group of units will be using to report emissions. The different subpart C reporting options are referred to as configurations in e-GGRT. The individual configurations are designed to match the reporting options made available by the rule in 40 CFR 98.36.

Once a configuration is added, e-GGRT will allow the user to enter the required reporting elements for the configuration type selected. A facility may have multiple configuration types and/or multiple configurations of any given type.

For additional information about adding and editing a configuration and the different reporting configurations available, please use the e-GGRT Help link(s) provided.

**Note:** CEMS that monitor both combustion emissions and process emissions that are reportable under another subpart should not be reported here. Instead the configuration should be added under the subpart specifying the process emissions, and both the combustion and process emissions will be reported under that subpart.

\* denotes a required field

Configuration Type: Single Unit Using Tier 4 (CEMS)

Unit Name-ID \* Unit 1 (40 characters maximum)

Description (optional)

Unit Type \* PCWD (Pulverized coal, water-fired, dry bottom)

Maximum Rated Heat Input Capacity 7000

Unit of Measure mmBtu/hr

Calculation Methodology Start Date 01/01/2010

Calculation Methodology End Date 12/31/2010

Enter the date for which this calculation methodology was first used to comply with Part 98. If this methodology was in use prior to January 1, 2010 select January 1, 2010 as the start date. If the facility switched to this methodology during 2010, enter the date on which the methodology change occurred.

If no change in calculation methodology occurred during 2010, select December 31, 2010 as the end date. If a change in calculation methodology occurred, enter the date on which this methodology was last used.

CANCEL Save

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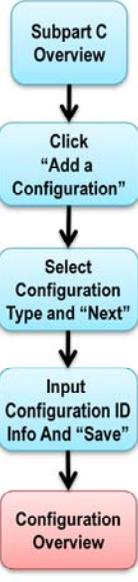
After the configuration type has been selected, certain identifying information must be entered. The required information will depend on the configuration type selected. Each configuration must be assigned a unique ID by the user.

Since this is a single unit configuration, the user must specify the unit type. E-GGRT will provide a list of unit types that the user must select from. Also, as this is a Tier 4 configuration, the calculation methodology start and end date must be specified on this page.

Once the appropriate information has been entered, click save to finish adding the configuration.

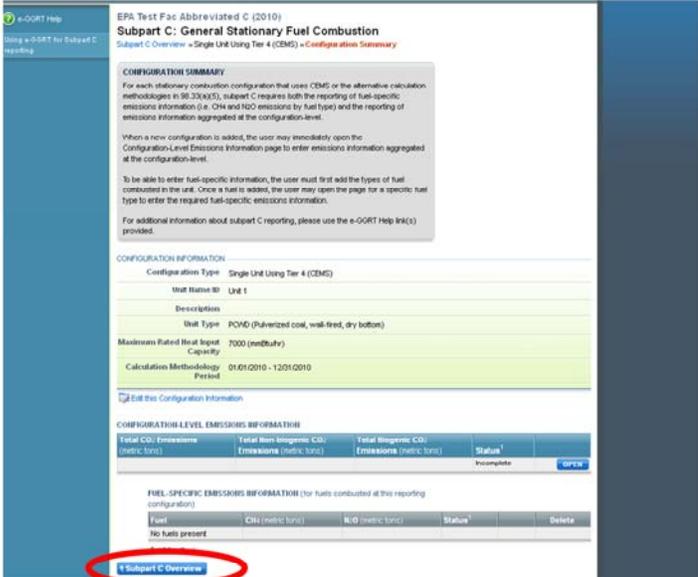


## Adding a Single Unit Using Tier 4



```

graph TD
    A[Subpart C Overview] --> B[Click "Add a Configuration"]
    B --> C[Select Configuration Type and "Next"]
    C --> D[Input Configuration ID Info And "Save"]
    D --> E[Configuration Overview]
        
```



**EPA Test Fac Abbreviated C (2010)**  
**Subpart C: General Stationary Fuel Combustion**  
 Subpart C Overview > Single Unit Using Tier 4 (CEMS) > Configuration Summary

**CONFIGURATION SUMMARY**  
 For each stationary combustion configuration that uses CEMS or the alternative calculation methodologies in 36.23(k)(3), subpart C requires both the reporting of fuel-specific emissions information (i.e. CO<sub>2</sub> and NO<sub>x</sub> emissions by fuel type) and the reporting of emissions information aggregated at the configuration-level.  
 When a new configuration is added, the user may immediately open the Configuration-Level Emissions Information page to enter emissions information aggregated at the configuration-level.  
 To be able to enter fuel-specific information, the user must first add the types of fuel consumed in the unit. Once a fuel is added, the user may open the page for a specific fuel type to enter the required fuel-specific emissions information.  
 For additional information about subpart C reporting, please use the e-PORT Help link(s) provided.

**CONFIGURATION INFORMATION**

Configuration Type	Single Unit Using Tier 4 (CEMS)
Unit Name ID	Unit 1
Description	
Unit Type	PCVD (pulverized coal, wall-fired, dry bottom)
Maximum Rated Heat Input Capacity	7000 (mBtu/hr)
Calculative Methodology Period	01/01/2010 - 12/31/2010

[Edit this Configuration Information](#)

**CONFIGURATION-LEVEL EMISSIONS INFORMATION**

Total CO <sub>2</sub> Emissions (metric tons)	Total Non-biogenic CO <sub>2</sub> Emissions (metric tons)	Total Biogenic CO <sub>2</sub> Emissions (metric tons)	Status
			Incomplete <a href="#">OPEN</a>

**FUEL-SPECIFIC EMISSIONS INFORMATION** (for fuels consumed at this reporting configuration)

Fuel	CO <sub>2</sub> (metric tons)	NO <sub>x</sub> (metric tons)	Status	Select
No fuels present				

[Subpart C Overview](#)

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Now the configuration has been added and the user is directed to the configuration summary page. To add another configuration the user may click on the Subpart C Overview link to return to the Overview page. We will continue by adding another configuration type for comparison.

# Adding an Aggregation of Units



Subpart C Overview

Click "Add a Configuration"

Select Configuration Type and "Next"

Input Configuration ID Info And "Save"

Configuration Overview

EPA Test Fac C & D (2010)

## Subpart C: General Stationary Fuel Combustion

[Subpart C Overview](#)

**OVERVIEW OF SUBPART C REPORTING REQUIREMENTS**

Subpart C requires affected facilities to report annual carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), and nitrous oxide (N<sub>2</sub>O) emissions from each stationary combustion unit or group. Use this page to identify each stationary combustion reporting configuration (reporting options listed in §98.36).

For additional information about subpart C 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 C: View Validation](#)

**CONFIGURATION SUMMARY (SEE ROLL UPS)**

Configuration Name or ID	Configuration Type	Status <sup>1</sup>	Delete
Unit 1	Single Unit Using Tier 4 (CEMS)	Incomplete	<a href="#">OPEN</a>
<a href="#">Add a Configuration</a>			
<a href="#">Facility Overview</a>			

<sup>1</sup> A status of "incomplete" means that one or more required data elements are incomplete. For details, refer to the Data Completeness validation messages in your Validation Report by clicking the "View Validation" link above (Note: if there are no validation messages for this subpart you will not see this link).

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Having returned to the subpart C overview page, we can now see that the first configuration has been added in the configuration summary table. The identifying information of the configuration may be edited by clicking on the name of the configuration in the table.

To proceed with adding the new configuration, we click on the "Add a Configuration" link.

# Adding an Aggregation of Units



**Subpart C Overview**

Click "Add a Configuration"

Select Configuration Type and "Next"

Input Configuration ID Info And "Save"

Configuration Overview

EPA Test Fac Abbreviated C (2010)  
**Subpart C: General Stationary Fuel Combustion**  
Subpart C Overview » **New Configuration**

**SUBPART C REPORTING CONFIGURATIONS**  
For stationary combustion sources required to report under subpart C, e-GGRT requires a facility to identify which reporting option each unit or group of units will be using to report emissions. The different subpart C reporting options are referred to as configurations in e-GGRT. The individual configurations are designed to match the reporting options made available by the rule in 40 CFR 98.36.

Once a configuration is added, e-GGRT will allow the user to enter the required reporting elements for the configuration type selected. A facility may have multiple configuration types and/or multiple configurations of any given type.

For additional information about adding and editing a configuration and the different reporting configurations available, please use the e-GGRT Help link(s) provided.

**Note:** You cannot change the Reporting Configuration Type for a unit or group after this step without starting over. This would entail losing any emissions data for the current reporting year, if entered.

**SELECT A REPORTING CONFIGURATION**

Select	Reporting Configuration Type	Calculation Methodology	Rule Reference
<input type="radio"/>	Single Unit Using Tiers 1, 2, or 3	Tier 1, 2, or 3	98.36(b)
<input type="radio"/>	Single Unit Using Tier 4 (CEMS)	Tier 4	98.36(b)
<input checked="" type="radio"/>	Aggregation of Units	Tier 1, 2, or 3	98.36(c)(1)
<input type="radio"/>	Common Pipe	Tier 1, 2, or 3	98.36(c)(3)
<input type="radio"/>	Common Stack or Duct (CEMS)	Tier 4	98.36(c)(2)
<input type="radio"/>	Alternative Part 75 Reporters	98.33(a)(5)	98.36(d)(2)

CANCEL < NEXT >

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This time we select an "Aggregation of Units" option as the configuration type and click "Next".

Adding an Aggregation of Units



Subpart C Overview

↓

Click "Add a Configuration"

↓

Select Configuration Type and "Next"

↓

Input Configuration ID Info And "Save"

↓

Configuration Overview

EPA Test Fac C & D (2010)  
**Subpart C: General Stationary Fuel Combustion**  
[Subpart C Overview](#) » [Aggregation of Units](#) » [Edit Configuration Information](#)

**CONFIGURATION INFORMATION**

For stationary combustion sources required to report under subpart C, e-GGRT requires a facility to identify which reporting option each unit or group of units will be using to report emissions. The different subpart C reporting options are referred to as *configurations* in e-GGRT. The individual configurations are designed to match the reporting options made available by the rule in 40 CFR 98.36.

Once a configuration is added, e-GGRT will allow the user to enter the required reporting elements for the configuration type selected. A facility may have multiple configuration types and multiple configurations of any given type.

For additional information about adding and editing a configuration and the different reporting configurations available, please use the e-GGRT Help link(s) provided. \* denotes a required field

<b>Configuration Type</b>	Aggregation of Units
<b>Group Name ID *</b>	<input type="text" value="GP-1"/> (40 characters maximum) <small>Must begin with the prefix "GP-"</small>
<b>Description (optional)</b>	<input type="text"/>
<b>Highest Maximum Rated Heat Input Capacity of any unit in the group *</b>	<input type="text" value="200"/> (mmBtu/hr)

CANCEL
SAVE

We can see that less information is required for this configuration than the previous type. Since it is a group of units, there is no requirement to identify the unit type. Also, since this configuration uses Tiers 1-3 to calculate emissions, the methodology start date and end date information will be entered for each fuel and not for the configuration as a whole.

After the required information has been entered we hit "save".

The image shows a screenshot of the EPA e-ORRT interface for adding a configuration. On the left, a vertical flowchart guides the user through the process: 'Subpart C Overview' (blue box), 'Click "Add a Configuration"' (blue box), 'Select Configuration Type and "Next"' (blue box), 'Input Configuration ID Info And "Save"' (blue box), and 'Configuration Overview' (red box). The main interface displays the 'Subpart C: General Stationary Fuel Combustion' configuration page. The page title is 'EPA Test Fac Abbreviated C (2010) Subpart C: General Stationary Fuel Combustion'. Below the title, there is a 'CONFIGURATION SUMMARY' section with instructions for reporting emissions. The 'CONFIGURATION INFORMATION' section shows details for 'Configuration Type: Aggregation of Units', 'Group Name ID: GP-1', and 'Highest Maximum Rated Heat Input Capacity of any unit in the group: 200 (mBtu/hr)'. The 'CONFIGURATION LEVEL EMISSIONS INFORMATION' section includes a table with columns for 'Total CO<sub>2</sub> Emissions from Fossil Fuels (metric tons)', 'Total Biogenic CO<sub>2</sub> Emissions (metric tons)', 'Total CO<sub>2</sub> Emissions from Sorbent Usage (metric tons)', and 'Status'. The 'FUEL SPECIFIC EMISSIONS INFORMATION' section has a table with columns for 'Fuel', 'Calculation Period', 'Methodology', 'Status', and 'Delete'. The 'Fuel' column currently shows 'No fuels present'. A '+ ADD a Fuel' button is visible at the bottom of the fuel table. The EPA logo is in the top right corner, and the page number '24' is in the bottom right corner.

We are taken to the configuration overview page where we can see the newly added configuration. The layout of this page will be the same as for the previous configuration type, but the exact information displayed will vary slightly. We will discuss the requirements for entering emission information shortly. But first we will highlight one important difference with adding a Part 75 configuration.

**Part 75 Configurations**

Configuration Type: Alternative Part 75 Reporters

Unit, Stack, or Pipe ID numbers (as reported under §75.64):  (40 characters maximum)

Description (optional):

Part 75 Methodology used to Calculate CO<sub>2</sub> emissions: **Select**

Part 75 Heat Input Method:

Calculation Methodology Start Date: 01/01/2010

Calculation Methodology End Date: 12/31/2010

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Units using one of the calculation methodologies in 98.33(a)(5), referred to here as Part 75 configurations, have an additional requirement when identifying the configuration.

As a reminder, 98.33(a)(5) is an option available to units reporting under subpart C, that report heat input year-round according to part 75. These are not units that report CO<sub>2</sub> mass emissions year-round to EPA and therefore are not included in subpart D.

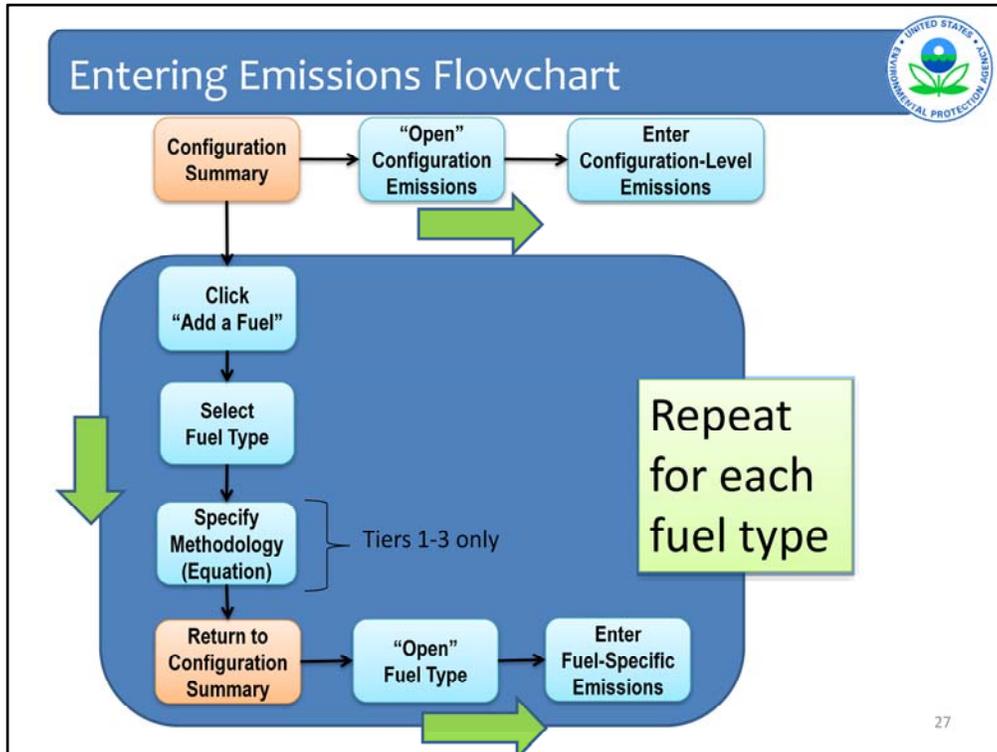
On this screen the user must select the Part 75 methodology that was used to calculate CO<sub>2</sub> emissions. By selecting the method, the screen for entering emissions information will be updated accordingly.

Having now reviewed the steps for adding a configuration, we will walk through the steps for entering emissions information under Subpart C.



# Subpart C

## Entering Emissions Information



This page shows the screen flow of entering emissions information in subpart C.

The top path represents the process for entering emissions information at the configuration-level. Starting on the configuration summary screen, the user will “Open” the configuration emissions screen. There is only one screen for entering the configuration-level emissions for each configuration. Once that information has been entered, the user will save and return to the configuration summary page.

The vertical path represents the process for entering fuel-specific emissions information. Starting on the configuration summary screen, the user will first click “Add a fuel”. The user will next select the fuel type. Following the selection of fuel type, the user will pick the calculation methodology they used to calculate emissions. The selection of calculation methodology is only required when Tiers 1, 2, or 3 are used.

Following the calculation methodology selection, the user will be returned to the configuration summary page. In the bottom (and 3<sup>rd</sup>) step, the user will then “Open” each fuel type and be taken to the screen to enter fuel-specific emissions. There will only be one page for entering emissions information for each fuel type in the configuration.

## Fuel-Specific Emissions



- Identify each fuel combusted in the configuration
- Tiers 1, 2, or 3
  - Report CO<sub>2</sub>, CH<sub>4</sub>, and N<sub>2</sub>O emissions for each fuel type
  - Additional requirements for specifying sampling frequency and use of missing data
  - Requirements vary by fuel type and calculation methodology
- Tier 4 or Part 75
  - Report CH<sub>4</sub> and N<sub>2</sub>O emissions for each fuel type

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For fuel-specific emission reporting, the first requirement is to identify each fuel combusted in the configuration.

For fuels that use Tiers 1, 2, or 3 to calculate emissions, the user will input CO<sub>2</sub>, CH<sub>4</sub>, and N<sub>2</sub>O emissions for each fuel. If applicable, there will be additional requirements for specifying sampling frequency for HHV and carbon content determination, and requirements for reporting the use of missing data.

For configurations that use the Tier 4 or Part 75 configurations, the fuel-specific reporting requirement is simply reporting CH<sub>4</sub> and N<sub>2</sub>O emissions for each fuel type.

Let's look at an example for the Tier 1, 2 or 3 case.

# Adding a Fuel



**EPA Test Fac Abbreviated C (2010)**  
**Subpart C: General Stationary Fuel Combustion**  
Subpart C Overview • Aggregation of Units • [Configuration Summary](#)

**CONFIGURATION SUMMARY**  
For each stationary combustion configuration that uses Tests 1, 2, or 3, subpart C requires both the reporting of fuel-specific emissions information and the reporting of emissions information aggregated at the configuration-level.

While both Fuel-Specific and Configuration-Level emissions are required in all cases, there is no order requirement on which must be entered first. If using the optional calculation spreadsheets, it is recommended that the user enter Fuel-Specific Emissions Information first. Links to the spreadsheets are provided on each Fuel-Specific Emissions page.

To be able to enter the Fuel-Specific Emissions pages, the user must first select the relevant fuel (one at a time), and then the corresponding CO<sub>2</sub> calculation methodology. Once a fuel is added the user may open the page for a specific fuel type to enter the required fuel-specific emissions information.

For additional information about subpart C reporting, please use the e-GRIT Help link(s) provided.

**CONFIGURATION INFORMATION**

Configuration Type	Aggregation of Units
Group Name ID	cp.1
Description	
Highest Maximum Rated Heat Input Capacity of any unit in this group	200 (mmBtu/hr)

[Edit this Configuration Information](#)

**CONFIGURATION-LEVEL EMISSIONS INFORMATION**

Total CO <sub>2</sub> Emissions from Fuels (metric tons)	Total Biogenic CO <sub>2</sub> Emissions (metric tons)	Total CO <sub>2</sub> Emissions from Sorbent Usage (metric tons)	Status
			Incomplete <a href="#">Go to</a>

**FUEL-SPECIFIC EMISSIONS INFORMATION** (for fuels combusted at this reporting configuration)

Fuel	Calculation Period	Methodology	Status	Delete
No fuels present				
<a href="#">+ Add a Fuel</a>				

[Subpart C Overview](#)

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Starting on the configuration summary page for an aggregation of units configuration, the first step is to click the “Add a Fuel” link under the fuel-specific emissions information table.

**Selecting a Fuel Type**

EPA Test Fac C & D (2010)  
**Subpart C: General Stationary Fuel Combustion**  
 Subpart C Overview • Aggregation of Units • **Add Fuel**

**ADD A FUEL**  
 Subpart C requires the identification of all fuels combusted in each reporting configuration. Use this page to add a fuel combusted in this reporting configuration. Repeat this process for each type of fuel combusted at this configuration over the course of the reporting year.

If the fuel you wish to add is not a fuel type listed in Table C-1, click "ADD an Other Fuel or Blend" to add a new fuel type.

If the calculation methodology for a given fuel type changed during the year, multiple entries should be made for the fuel type to represent the discrete calculation methodology periods. Only one calculation methodology may be used at any point in time for a specific fuel type under a given configuration, but different fuel types might be allowed to use different calculation methodologies for a given configuration.

For additional information about reporting fuel information, please use the e-GGRT Help link(s) provided.

**COAL AND COKE** HIDE

- Anthracite
- Bituminous
- Subbituminous
- Lignite
- Coke
- Mixed (Commercial sector)
- Mixed (Industrial coking)
- Mixed (Industrial sector)
- Mixed (Electric Power sector)

**NATURAL GAS** HIDE

- Natural Gas (Weighted U.S. Average)

↓ If a fuel is not found among those listed, you can add it to the other fuels and blends list below.

**OTHER FUELS AND BLENDS** HIDE

No other fuels or blends present.

➤ ADD an Other Fuel or Blend

**PETROLEUM PRODUCTS** SHOW

**OTHER FUELS - SOLID** SHOW

**OTHER FUELS - GASEOUS** SHOW

**BIOMASS FUELS - SOLID** SHOW

**BIOMASS FUELS - GASEOUS** HIDE

- Biogas (Captured methane)

**BIOMASS FUELS - LIQUID** HIDE

- Ethanol
- Biodiesel
- Rendered Animal Fat
- Vegetable Oil

**CANCEL** **SAVE**

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The first screen you see is for selecting the types of fuel combusted in the configuration. You may only select one fuel type at a time. The different fuel categories in Table C-1 of Part 98 are drop down lists containing the fuel types listed in Table C-1.

In addition to the fuel types listed in Table C-1, you may add “other fuels or blends” using the link at the bottom of the page.

Once you have selected the fuel type you wish to add, click save and you will be taken to the next screen. For this example, we will select natural gas.

**Selecting the Calculation Methodology**

EPA Test Fac C & D (2010)  
**Subpart C: General Stationary Fuel Combustion**  
 Subpart C Overview » Aggregation of Units » Calculation Methodology

**DEFINE A CALCULATION PERIOD AND METHODOLOGY**  
 Use this page to define the CO<sub>2</sub> calculation methodology used for this fuel type and the period in which this methodology was used. For additional information about reporting the calculation methodology and period for a specific fuel, please use the e-GRIT Help link(s) provided. \* denotes a required field

**CONFIGURATION**  
 Unit or Group Name: GP-1  
 Configuration Type: Aggregation of Units

**EMISSIONS CALCULATION PERIOD**  
 Fuel (Fuel Type): Natural Gas (Weighted U.S. Average) (Natural Gas)  
 Calculation Methodology Start: 01/01/2010  
 Calculation Methodology End: 12/31/2010

**CALCULATION METHODOLOGY**  
 Select calculation methodology for this emissions calculation period specified

- Tier 1 (Equation C-1)- Annual fuel combusted, default heating value, and default CO<sub>2</sub> emission factor
- Tier 1 (Equation C-1A)- Annual natural gas usage from billing records (therms) and default CO<sub>2</sub> emission factor  
For use with natural gas, when billing records are used to quantify usage, and consumption is expressed in units of therms
- Tier 1 (Equation C-1B)- Annual natural gas usage from billing records (mmbtu) and default CO<sub>2</sub> emission factor  
For use with natural gas, when billing records are used to quantify usage, and consumption is expressed in units of mmbtu
- Tier 2 (Equation C-2A)- Annual fuel combusted, measured heating value, and default CO<sub>2</sub> emission factor  
For use with any type of fuel listed in Table C-1, except for municipal solid waste (MSW)
- Tier 3 (Equation C-3)- Annual volume of gaseous fuel combusted, average carbon content of the gaseous fuel, and average molecular weight of the gaseous fuel  
For use with gaseous fuels

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Shown is the calculation methodology selection screen for natural gas. The first step is to select the date range for which this methodology was used. This allows the user to identify when a change in calculation methodology occurred. If a methodology change did occur during the year, you would need to add this fuel twice, once for each calculation methodology period.

The second step is to select the calculation methodology used to calculate CO<sub>2</sub> emissions for this fuel type. The calculation methodologies listed correspond to the equations provided in the rule that could be used to calculate CO<sub>2</sub> emissions for that fuel type.

The list is not intended to be prescriptive, and the user should refer to Part 98 to determine which calculation methodology they are required to use.

In this example we select Tier 1 (Equation C-1). After selecting the calculation methodology, we will hit “save”.

# Fuel-Specific Emissions



EPA Test Fac. Abbreviated C (2010)

### Subpart C: General Stationary Fuel Combustion

Subpart C Overview » Aggregation of Units » Configuration Summary

**CONFIGURATION SUMMARY**

For each stationary combustion configuration that uses Test 1, 2, or 3, subpart C requires both the reporting of fuel-specific emissions information and the reporting of emissions information aggregated at the configuration level.

While both Fuel-Specific and Configuration-Level emissions are required in all cases, there is no order requirement on which must be entered first. If using the optional calculation spreadsheet, it is recommended that the user enter Fuel-Specific Emissions information first. Links to the spreadsheets are provided on each Fuel-Specific Emissions page.

To be able to enter the Fuel-Specific Emissions pages, the user must first select the relevant fuel (one at a time), and then the corresponding CO<sub>2</sub> calculation methodology. Once a fuel is added the user may open the page for a specific fuel box to enter the required fuel-specific emissions information.

For additional information about subpart C reporting, please use the e-GORT Help (FAQ) provided.

**CONFIGURATION INFORMATION**

Configuration Type: Aggregation of Units  
Group Name/ID: GA-1  
Description:  
Highest Maximum Rated Heat Input Capacity of any Unit in the group: 200 (mmBtu/hr)

**CONFIGURATION LEVEL EMISSIONS INFORMATION**

Total CO <sub>2</sub> Emissions from Fuel <sup>1</sup> (metric tons)	Total Reported CO <sub>2</sub> Emissions (metric tons)	Total CO <sub>2</sub> Emissions from Sorbent Usage (metric tons)	Status <sup>1</sup>
			Incomplete <a href="#">[DPF]</a>

**FUEL-SPECIFIC EMISSIONS INFORMATION** (for fuels combusted at this reporting configuration)

Fuel	Calculation Period	Methodology	Status <sup>1</sup>	Details
Natural Gas (Weighted U.S.)	01/01/2010 - 12/31/2010	Tier 1 (Equation C-1)	Incomplete	<a href="#">[DPF]</a>

[Add a Fuel](#)

<sup>1</sup> A status of "incomplete" means that one or more required data elements are incomplete. For details, refer to the Data Completeness validation messages in your Validation Report by clicking the "View Validation" link on the overview page. (Note: if there are no validation messages for

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After saving the methodology, we are returned to the configuration summary page. Natural gas is now listed as a fuel combusted in this configuration. At this point we can either add another fuel, or enter emissions for the added fuel. This time we will add a fuel not listed in Table C-1.

# Fuel-Specific Emissions



EPA Test Fac C & D (2010)

## Subpart C: General Stationary Fuel Combustion

[Subpart C Overview](#) - [Aggregation of Units](#) - [Add Fuel](#)

### ADD A FUEL

Subpart C requires the identification of all fuels combusted in each reporting configuration. Use this page to add a fuel combusted in this reporting configuration. Repeat this process for each type of fuel combusted at this configuration over the course of the reporting year.

If the fuel you wish to add is not a fuel type listed in Table C-1, click "ADD an Other Fuel or Blend" to add a new fuel type.

If the calculation methodology for a given fuel type changed during the year, multiple entries should be made for the fuel type to represent the discrete calculation methodology periods. Only one calculation methodology may be used at any point in time for a specific fuel type under a given configuration, but different fuel types might be allowed to use different calculation methodologies for a given configuration.

For additional information about reporting fuel information, please use the e-GORT Help link(s) provided.

COAL AND COKE	<a href="#">SHOW</a>	PETROLEUM PRODUCTS	<a href="#">SHOW</a>
NATURAL GAS	<a href="#">SHOW</a>	OTHER FUELS - SOLID	<a href="#">SHOW</a>
<a href="#">↓</a> If a fuel is not found among those listed, you can add it to the other fuels and blends list below.		OTHER FUELS - GASEOUS	<a href="#">SHOW</a>
OTHER FUELS AND BLENDS	<a href="#">HIDE</a>	BIOMASS FUELS - SOLID	<a href="#">SHOW</a>
No other fuels or blends present.		BIOMASS FUELS - GASEOUS	<a href="#">SHOW</a>
<a href="#">ADD an Other Fuel or Blend</a>		BIOMASS FUELS - LIQUID	<a href="#">SHOW</a>

[CANCEL](#) [SAVE](#)

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This time, instead of selecting a fuel from the Table C-1 lists, we will click the "Add an Other Fuel or Blend" link and be taken to the next page.

**Fuel-Specific Emissions**

EPA Test Fac C & D (2010)

**Subpart C: General Stationary Fuel Combustion**

[Subpart C Overview](#) » [Aggregation of Units](#) » [Add Fuel](#)

**DEFINE A NEW FUEL**

Use this page to define a new type of fuel. The fuel type should be defined as an "other" fuel type if it is a fuel not listed in Table C-1 and if the fuel does not contain a mixture of any fuels listed in Table C-1. The fuel should be defined as a "blend" if the fuel is a mixture of one or more fuels listed in Table C-1 and the exact composition of the blended fuel is not known. In addition to fuels listed in Table C-1, blended fuels may contain fuel types not listed in Table C-1.

For additional information about reporting fuel information, please use the e-GGRT Help link(s) provided. \* denotes a required field

**FUEL INFORMATION**

Fuel Name \*

Fuel Type \* 

- Select
- Other (gas)
- Other (liquid)
- Other (solid)
- Blend (gas)
- Blend (liquid)
- Blend (solid)

ation of 1 or more fuels for which details regarding the fuel mixture is comprised completely of C-1 fuels. Components of the mixture should be entered as appropriate. If the mixture contains a fuel not listed in C-1, use either Other as appropriate.

The define a new fuel type screen allows the user to name the new fuel type. It also requires the user to specify whether the fuel is an "other fuel type" or a "blend fuel type". Blends contain multiple fuels listed in Table C-1 and the exact composition of each fuel is unknown. If the relative portions of each fuel type in the blend are known, each fuel should be reported separately in e-GGRT. The other fuel type should be selected when the fuel type has no mixture of fuels listed in Table C-1 and the use of Tier 3 is required. In addition to specifying if a fuel is of the "blend" or "other" type, you will be required to specify whether the fuel is a gas, liquid, or solid. Selection of the fuel type will determine which calculation methodologies are available for selection. For example, if an other gaseous fuel is selected, only Equation C-5 will be available.

For more information on blended fuels, please see 40 CFR 98.34.

After entering a name and type, click "save" to proceed.

At this point we are now going to review the procedure for entering fuel-specific emissions information.

# Configuration Summary with Fuel Added



## CONFIGURATION INFORMATION

Configuration Type	Aggregation of Units
Group Name/ID	GP-1
Description	
Highest Maximum Rated Heat Input Capacity of any unit in the group	200 (mMBtu/h)

[Edit this Configuration Information](#)

## CONFIGURATION-LEVEL EMISSIONS INFORMATION

Total CO <sub>2</sub> Emissions from Fossil Fuels (metric tons)	Total Biogenic CO <sub>2</sub> Emissions (metric tons)	Total CO <sub>2</sub> Emissions from Sorbent Usage (metric tons)	Status <sup>1</sup>	
			Incomplete	<a href="#">OPEN</a>

## FUEL-SPECIFIC EMISSIONS INFORMATION (for fuels combusted at this reporting configuration)

Fuel	Calculation Period	Methodology	Status <sup>1</sup>	Delete
Natural Gas (Weighted U.S. Average)	01/01/2010 - 12/31/2010	Tier 1 (Equation C-1)	Incomplete <a href="#">OPEN</a>	

[ADD a Fuel](#)

[Subpart C Overview](#)

<sup>1</sup> A status of "Incomplete" means that one or more required data elements are incomplete. For details, refer to the Data Completeness validation messages in your Validation Report by clicking the "View Validation" link on the overview page. (Note: if there are no validation messages for ...)

Starting on the configuration summary page, we are now going to open the emissions reporting page for natural gas by clicking the "Open" link.



## Natural Gas Tier 1 (Equation C-1)

**CONFIGURATION-FUEL-PERIOD**

Unit or Group Name/ID: GP-1

Configuration Type: Aggregation of Units

Fuel (Fuel Type): Natural Gas (Weighted U.S. Average)(Natural Gas)

Reporting Period: 01/01/2010 - 12/31/2010

---

**EQUATION C-1 SUMMARY AND RESULT**

$CO_2 = 1 \times 10^{-3} \times \text{Fuel} \times \text{HHV} \times \text{EF}$

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

Annual CO<sub>2</sub> emissions from combustion of the specified fuel (include both biogenic and non-biogenic emissions):  (metric tons)  
Use Equation C-1/C-8 spreadsheet to calculate

---

**EQUATION C-8 SUMMARY AND RESULTS**

$CH_4 \text{ or } N_2O = 1 \times 10^{-3} \times \text{Fuel} \times \text{HHV} \times \text{EF}$

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

Annual CH<sub>4</sub> emissions from combustion of the specified fuel:  (metric tons)  
Use Equation C-1/C-8 spreadsheet to calculate

Annual N<sub>2</sub>O emissions from combustion of the specified fuel:  (metric tons)  
Use Equation C-1/C-8 spreadsheet to calculate

---

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

CO<sub>2</sub> equivalent value for Annual CH<sub>4</sub> emissions:  (metric tons)

CO<sub>2</sub> equivalent value for Annual N<sub>2</sub>O emissions:  (metric tons)

Use the **OPTIONAL e-GGRT Calculation Spreadsheet** to calculate the Equation Result that is entered here. Inputs to emission equations for direct reporters are not currently collected by e-GGRT (75 FR 81350 Dec 27, 2010)

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Here is the fuel-specific emissions information page for natural gas when the equation C-1 calculation methodology is selected. For fuels using equation C-1, there are only 5 data fields. The first data field is for entering the CO<sub>2</sub> emissions calculated according to equation C-1. The second and third data fields are the CH<sub>4</sub> and N<sub>2</sub>O emissions calculated according to equation C-8 in metric tons of each gas. The fourth and fifth data fields are for reporting the CO<sub>2</sub> equivalent emissions for CH<sub>4</sub> and N<sub>2</sub>O.

Note that data inputs such as fuel consumption or heat input are not currently being collected by e-GGRT.

Also note that under the data input fields, there are links to calculation worksheets. We will go into further detail about the worksheets later in this presentation.

Saving the information will return you to the configuration summary page. On the next screen, we will review a different example in which the Tier 2 methodology for natural gas was selected.

## Natural Gas Tier 2 (Equation C-2a)



**EQUATION C-2a SUMMARY AND RESULT**

$CO_2 = 1 \times 10^{-3} \times Fuel \times HHV \times EF$

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

Annual  $CO_2$  emissions from combustion of the specified fuel (include both biogenic and non-biogenic emissions)  (metric tons)

Use Equation C-2a/C-2a spreadsheet to calculate

**EQUATION C-2a SUMMARY AND RESULTS**

$CH_4 \text{ or } N_2O = 1 \times 10^{-3} \times HHV \times EF \times Fuel$

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

Annual  $CH_4$  emissions from combustion of the specified fuel  (metric tons)

Use Equation C-2a/C-2a spreadsheet to calculate

Annual  $N_2O$  emissions from combustion of the specified fuel  (metric tons)

Use Equation C-2a/C-2a spreadsheet to calculate

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

CO<sub>2</sub> equivalent value for Annual  $CH_4$  emissions  (metric tons)

CO<sub>2</sub> equivalent value for Annual  $N_2O$  emissions  (metric tons)

**HHV SUBSTITUTE DATA INFORMATION**

Identify each month for which the monthly HHV value is calculated using one or more substitute data values

<input type="checkbox"/> January	<input type="checkbox"/> February	<input type="checkbox"/> March
<input type="checkbox"/> April	<input type="checkbox"/> May	<input type="checkbox"/> June
<input type="checkbox"/> July	<input type="checkbox"/> August	<input type="checkbox"/> September
<input type="checkbox"/> October	<input type="checkbox"/> November	<input type="checkbox"/> December

Frequency of HHV determinations

Frequency of HHV determinations

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The Tier 2 calculation methodology screen is similar to the Tier 1 screen, however two additional fields are present. These fields include reporting information on the use of missing data for the calculation of the High Heating Value for the fuel, and the frequency in which HHV determinations were made. In the next example we will look at the Tier 3 screen for natural gas.

Natural Gas Tier 3 (Equation C-5)



**EQUATION C-5 SUMMARY AND RESULT**

$$\text{CO}_2 = \frac{44}{12} \times \text{Fuel} \times \text{CC} \times \frac{\text{MW}}{\text{MVC}} \times 0.001$$

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

Annual CO<sub>2</sub> emissions from combustion of the specified fuel (metric tons)  (metric tons)  
(include both biogenic and non-biogenic emissions)  
[Use Equation C-5C-5 spreadsheet to calculate](#)

**EQUATION C-8 SUMMARY AND RESULTS**

$$\text{CH}_4 \text{ or } \text{N}_2\text{O} = 1 \times 10^{-3} \times \text{Fuel} \times \text{HHV} \times \text{EF}$$

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

Annual CH<sub>4</sub> emissions from combustion of the specified fuel (metric tons)  (metric tons)  
(include both biogenic and non-biogenic emissions)  
[Use Equation C-5C-8 spreadsheet to calculate](#)

Annual N<sub>2</sub>O emissions from combustion of the specified fuel (metric tons)  (metric tons)  
(include both biogenic and non-biogenic emissions)  
[Use Equation C-5C-8 spreadsheet to calculate](#)

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

CO<sub>2</sub> equivalent value for Annual CH<sub>4</sub> emissions  (metric tons)

CO<sub>2</sub> equivalent value for Annual N<sub>2</sub>O emissions  (metric tons)

**CARBON CONTENT SUBSTITUTE DATA INFORMATION**

Total number of valid carbon content determinations

Total number of carbon content substitute data values

Frequency of carbon content determinations

Total number of operating hours in the reporting year for which missing data substitution was used for fuel usage

**MOLECULAR WEIGHT INFORMATION**

Total number of valid molecular weight determinations

Total number of molecular weight substitute data values

Frequency of molecular weight determinations

CANCEL
SAVE

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Again, the basic information from the Tier 1 screen is included, but there are now additional reporting requirements for the carbon content and molecular weight information.

The input screen will be determined by the calculation methodology selected for the specific fuel type. Configurations that use the Tier 4 or Part 75 methodologies will also have slightly different reporting requirements for each fuel type and will be reviewed now.

# Tier 4 – Fuel-Specific Emissions



EPA Test Fac Abbreviated C (2010)  
**Subpart C: General Stationary Fuel Combustion**  
Subpart C Overview » Single Unit Using Tier 4 (CEMS) » Fuel-specific Emissions

**FUEL-SPECIFIC CH<sub>4</sub> AND N<sub>2</sub>O EMISSIONS**  
Use this page to enter the annual CH<sub>4</sub> and N<sub>2</sub>O emissions information for this fuel type. For additional information about the data collected on this page, please use the e-GGRT Help link(s) provided.

Annual CH<sub>4</sub> (metric tons) 0.17  
Annual N<sub>2</sub>O (metric tons) 0.017

**CONFIGURATION**

Unit or Group Name ID	Unit 1
Configuration Type	Single Unit Using Tier 4 (CEMS)
Fuel (Fuel Type)	Natural Gas (Weighted U.S. Average) (Natural Gas)

**EQUATION C-10 SUMMARY AND RESULTS**

$$\text{CH}_4 \text{ or N}_2\text{O} = 0.001 \times (\text{H})_k \times \text{EF}$$

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

Annual CH<sub>4</sub> emissions from combustion of the specified fuel 0.17 (metric tons) Use Equation C-10 spreadsheet to calculate

Annual N<sub>2</sub>O emissions from combustion of the specified fuel 0.017 (metric tons) Use Equation C-10 spreadsheet to calculate

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

CO<sub>2</sub> equivalent value for Annual CH<sub>4</sub> emissions 3.6 (metric tons)

CO<sub>2</sub> equivalent value for Annual N<sub>2</sub>O emissions 5.3 (metric tons)

CANCEL SAVE

Shown is what information would have to be entered for a fuel in a Tier 4 Configuration. The reporting fields on this page are for entering information on CH<sub>4</sub> and N<sub>2</sub>O emissions only. All fuel types under the Tier 4 configuration type will require the same input information. Part 75 configurations in subpart C will be similar to Tier 4 configurations.

Having now viewed the fuel-specific input screens, we will go into a little more detail on the equation worksheets provided through e-GGRT.

## Calculation Spreadsheets, CBI and Inputs



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

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Please note that if you used the Optional Calculation Spreadsheets during our Sandbox Testing opportunity earlier this year, those spreadsheets may have change since then. When e-GGRT opens for Live GHG reporting next week, be sure to download the most recent and corrected version of the calculation spreadsheets.

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 C Equations



- Subpart C equation worksheets are accessible on the Fuel-Specific Emissions screens
- When a worksheet is available for a specific emissions value, links to the respective worksheets are provided directly under the input fields in e-GGRT
- The subpart C equation worksheets include equations for calculating both CO<sub>2</sub> and CH<sub>4</sub>/N<sub>2</sub>O as applicable
- The following calculation worksheets are provided for subpart C in e-GGRT
  - Equation C-1, C-8
  - Equation C-1a, C-8a
  - Equation C-1b, C-8b
  - Equation C-2a, C-2b, C-9a
  - Equation C-2c, C-9b
  - Equation C-3, C-8
  - Equation C-4, C-8
  - Equation C-5, C-8
  - Equation C-10
  - Equation C-11

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Moving on, the subpart C equation worksheets are accessible on the Fuel-Specific Emissions screens. If there is a worksheet available to calculate a specific emission value, a link to the respective worksheet will be provided directly under the input field in e-GGRT.

The subpart C equation worksheets include equations for calculating both CO<sub>2</sub> and CH<sub>4</sub>/N<sub>2</sub>O emissions as applicable.

The worksheets available in e-GGRT are listed on this slide.

The worksheets will calculate CO<sub>2</sub> and CH<sub>4</sub>/N<sub>2</sub>O emissions for the Tier 1, 2, and 3 methodologies. The calculation worksheets will only calculate CH<sub>4</sub> and N<sub>2</sub>O emissions for the Tier 4 and Part 75 methodologies.

For example, the Equation C-1, C-8 calculation worksheet will calculate CO<sub>2</sub> emissions according to Equation C-1, and CH<sub>4</sub>/N<sub>2</sub>O emissions according to Equation C-8.

The C-1, C-8 worksheet is shown in the following slide.

# Equation C-1, C-8 Worksheet



Subpart C - General Stationary Fuel Combustion - Tier 1 Calculation Methodology Using Equations C-1 and C-8  
**OPTIONAL SPREADSHEET FOR FACILITY RECORDKEEPING PURPOSES**  
 Version: 4/2017 (12/2016)  
 Today's date: 8/20/2017  
 Use your spreadsheet for data entry. 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 allow this spreadsheet, right-click the "worksheets" tab on the bottom of the screen and select "Unprotect Sheet." When prompted for the password, type "12345" 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 C-1:  $CO_2 = 1x 10^{-3} * Fuel * HHV * EF$

Equation C-8:  $CH_4 \text{ or } N_2O = 1x 10^{-3} * Fuel * HHV * EF$

**Fuel Input Data**

Fuel Name	
APC Unit Designation	
Control System	
APC Unit Name	
Control System	
Unit Type	General Stationary Fuel Combustion

**Fuel Input Data**

[Fuel] - Mass or volume of fuel consumed per year, from company records or other data sources. Do not use for solid fuels. Do not use for solid fuels to generate fuel, and do not use for liquid fuel.	
[HHV] - Default high heat value of the fuel, from Table C-1 (solid fuels) or Table C-2 (liquid fuels).	

**Constants**

[EF <sub>CO2</sub> ] - Default CO <sub>2</sub> emission factor from Table C-1 (solid fuels) or Table C-2 (liquid fuels).	0.000
--	-------

**Annual CO<sub>2</sub> Mass Emissions For the Specific Fuel Type (metric tons) from Equation C-1**

[EF <sub>CO2</sub> ] - Fuel Specific Default CO <sub>2</sub> Emission Factor from Table C-1 (pg. C-1) (solid fuels)	
[CO <sub>2</sub> ] - Annual CO <sub>2</sub> emissions from combustion of the specified fuel (metric tons)	0.0

Enter this value in e-GGRT

**Annual CH<sub>4</sub> Mass Emissions For the Specific Fuel Type (metric tons) from Equation C-8**

[EF <sub>CH4</sub> ] - Fuel Specific Default Emission Factor for CH <sub>4</sub> from Table C-1 (pg. C-1) (solid fuels)	
[CH <sub>4</sub> ] - Annual CH <sub>4</sub> emissions from combustion of the specified fuel (metric tons)	0.00

Enter this value in e-GGRT

**Annual H<sub>2</sub>O Mass Emissions For the Specific Fuel Type (metric tons) from Equation C-8**

[EF <sub>H2O</sub> ] - Fuel Specific Default Emission Factor for H <sub>2</sub> O from Table C-1 (pg. C-1) (solid fuels)	
[H <sub>2</sub> O] - Annual H <sub>2</sub> O emissions from combustion of the specified fuel (metric tons)	0.000

Enter this value in e-GGRT

**Annual CH<sub>4</sub> Mass Emissions For the Specific Fuel Type Converted to Carbon Dioxide Equivalent (metric tons CO<sub>2</sub>e)**

[GWP <sub>100</sub> ] - Global Warming Potential for CH <sub>4</sub>	21
[CH <sub>4</sub> ] - Annual CH <sub>4</sub> emissions from combustion of the specified fuel (metric tons CO <sub>2</sub> e)	0

**INFORMATION ONLY: Annual H<sub>2</sub>O Mass Emissions For the Specific Fuel Type Converted to Carbon Dioxide Equivalent**

[GWP <sub>100</sub> ] - Global Warming Potential for H <sub>2</sub> O	100
[H <sub>2</sub> O] - Annual H <sub>2</sub> O emissions from combustion of the specified fuel (metric tons CO <sub>2</sub> e)	0

The equation C-1, C-8 worksheet will have data fields where the user can enter the relevant information needed to calculate the emission values. For the C-1, C-8 worksheet, the user will enter the facility specific fuel consumption, default high heating value, and default emission factors for the fuel in the green cells. The emissions values will be calculated in the red-bordered cells.

For your reference, Tables C-1 and C-2 are included in separate tabs in the worksheet.

Note that a separate worksheet is needed for each fuel type combusted in each configuration.

## Configuration-Level Emissions



- Emissions aggregated across all units and all fuel types for a given configuration
- Tier 4 and Part 75 requirements
  - Report measured CO<sub>2</sub> at configuration-level
  - Missing data and other emissions information
- Exact requirements will vary by configuration type

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For configuration-level emissions, the emissions reported will be aggregations across all units and all fuel types for a given configuration.

It is at the configuration-level that the distinction between biogenic and fossil fuel CO<sub>2</sub> emissions will be made.

For configurations that use Tier 4 or Part 75 reporting, the measured CO<sub>2</sub> will be reported for the monitoring location at the configuration-level. In addition to CO<sub>2</sub> emissions, missing data and other emissions information (as applicable) will be reported at the configuration level.

The exact requirements will vary by configuration type.

# Opening Configuration-Level Emissions



**CONFIGURATION INFORMATION**

Configuration Type	Aggregation of Units
Group Name ID	GP-1
Description	Highest Maximum Rated Heat Input Capacity of any unit in the group

[Edit this Configuration Information](#)

**CONFIGURATION-LEVEL EMISSIONS INFORMATION**

Total CO <sub>2</sub> : Emissions from Fossil Fuels (metric tons)	Total Biogenic CO <sub>2</sub> : Emissions (metric tons)	Total CO <sub>2</sub> : Emissions from Sorbent Usage (metric tons)	Status <sup>1</sup>
			Incomplete <b>OPEN</b>

**FUEL-SPECIFIC EMISSIONS INFORMATION** (for fuels combusted at this reporting configuration)

Fuel	Calculation Period	Methodology	Status <sup>1</sup>	Delete
Natural Gas (Weighted U.S. Average)	01/01/2010 - 12/31/2010	Tier 1 (Equation C-1)	Complete	<b>OPEN</b> ✖

[ADD a Fuel](#)

[Subpart C Overview](#)

<sup>1</sup> A status of "Incomplete" means that one or more required data elements are incomplete. For details, refer to the Data Completeness validation messages in your Validation Report by clicking the "View Validation" link on the overview page. (Note: if there are no validation messages for this subpart you will not see this link).

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On the Configuration Summary page, we will click the "open" link on the right side of the configuration-level emissions information table.



## Configuration-Level Emissions

### Aggregation of Units

EPA Test Fac Abbreviated C (2010)

**Subpart C: General Stationary Fuel Combustion**

[Subpart C Overview](#) » [Aggregation of Units](#) » [Configuration-level Emissions](#)

**CONFIGURATION-LEVEL EMISSIONS**

Use this page to enter the annual greenhouse gas emissions information for this stationary combustion configuration. For additional information about the data collected on this page, please use the e-GGRT Help link(s) provided.

0.0

Annual CO<sub>2</sub> from Sorbent (metric tons)

5000.0

Annual CO<sub>2</sub> from fossil fuels (metric tons)

1000.0

Annual CO<sub>2</sub> from biomass fuels (metric tons)

CONFIGURATION

Unit or Group Name/ID GP-1

Configuration Type Aggregation of Units

SORBENT EMISSIONS

Annual CO<sub>2</sub> emissions from sorbent  (metric tons) ←

CO<sub>2</sub> FOR ALL FUELS

Total annual CO<sub>2</sub> mass emissions from fossil fuels  (metric tons) ←

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

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Here is the configuration-level emissions reporting page for the aggregation of units configuration. The number of required elements is minimal for this configuration type. It is on this page that the distinction between biogenic and fossil fuel emissions will be made for this configuration. Once the required fields have been entered, hit “save” and you will be returned to the configuration summary page. The next screen will be an example of configuration-level reporting for a Tier 4 configuration type.

# Configuration-Level Emissions – Tier 4



**EPA Test Fac Abbreviated C (2010)**  
**Subpart C: General Stationary Fuel Combustion**  
Subpart C Overview » Single Unit Using Tier 4 (CEMS) » Configuration-level Emissions

**CONFIGURATION-LEVEL EMISSIONS**  
Use this page to enter the annual emissions information for this stationary combustion configuration. For additional information about the data collected on this page, please use the e-GGRT Help link(s) provided.

**CONFIGURATION**

Unit or Group Name/ID	Unit 1
Configuration Type	Single Unit Using Tier 4 (CEMS)
Calculation Methodology Period	01/01/2010 - 12/31/2010

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

Quarter 1	150000 (metric tons)
Quarter 2	250000 (metric tons)
Quarter 3	250000 (metric tons)
Quarter 4	350000 (metric tons)

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

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

Check this box to indicate that the emissions reported for the CEMS include emissions calculated according to 98.33(a)(6)(viii) for a slipstream that bypassed the CEMS.

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

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

**Summary:**  
Annual CO<sub>2</sub> from CEMS (or applicable Part 75 methodology) (metric tons): 1000000.0  
Annual Non-biogenic CO<sub>2</sub> (metric tons): 900000.0  
Annual Biogenic CO<sub>2</sub> (metric tons): 100000.0

Continued on Next Page

Here is the top half of the configuration-level emissions reporting page for a configuration of the type Single Unit Using Tier 4. The reporting fields shown on this slide all relate to CO<sub>2</sub> emissions. The lower half of this e-GGRT screen with the rest of the reporting elements can be seen on the next slide.

Configuration-Level Emissions – Tier 4

Continued From Previous Page

**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) ←

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

Biogenic CO<sub>2</sub> emissions were estimated using the methodology described by Equations C-12, C-13, and C-14.  (check if true) ←  
See section 98.33(e)(2)

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This page shows the lower half of the configuration-level emissions reporting page for a Single Unit Using Tier 4. In addition to the information on reporting CO<sub>2</sub> emissions, there are input fields for reporting hours of substitute data use.

If section 98.33(e)(2) was used to calculate biogenic emissions, the reporter will also need to check the box and fill in a few additional reporting fields that will appear when the box is checked.

Once the information has been entered, the user will hit “Save” and return to the configuration summary page.

Moving on, we will now show a few examples for entering fuel-specific emissions information.



# Subpart D Reporting

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We will now review the procedures for entering information for sources subject to subpart D.

## Subpart D Units



- Subpart D does not have unique configuration types
- Overall functionality closely mirrors the Tier 4/Part 75 reporting configurations in subpart C
- Configuration-Level and Fuel-Specific Reporting
- Part 75 CO<sub>2</sub> calculation methodology determine missing data reporting requirements in part 98
  - CEMS
  - Appendix G, Equation G-1
  - Appendix G, Equation G-4
  - Low Mass Emitters 40 CFR 98.74(c)(4)(iii)

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Unlike subpart C, subpart D does not have unique configuration types. The reporting functionality of subpart D will closely mirror the Tier 4 and Part 75 reporting configurations in subpart C.

Like subpart C, subpart D requires both configuration-level and fuel-specific emissions reporting.

The primary distinction between units reported under subpart D will be the part 75 methodology used to calculate CO<sub>2</sub> emissions. The missing data reporting requirements will vary by the CO<sub>2</sub> calculation methodology.

The four different CO<sub>2</sub> calculation methodologies which the user may select from include: CEMS, Equation G-1, Equation G-4, and Low Mass Emitters.

# Subpart D Overview



[e-GGRT Help](#)

Using e-GGRT for Subpart D reporting

EPA Test Fac Abbreviated C (2010)

## Subpart D: Electricity Generation

### Subpart D Overview

**OVERVIEW OF SUBPART D REPORTING REQUIREMENTS**

Subpart D includes electricity generating units that are subject to the requirements of the Acid Rain Program and any other electricity generating units that are required to monitor and report to EPA CO<sub>2</sub> mass emissions year-round according to 40 CFR part 75. Electricity generating units that are not included in the definition of subpart D should be reported under subpart C. First, use this page to identify a unit, stack, or pipe and then enter the emission information required by subpart D for that unit, stack, or pipe.

For additional information about Subpart D reporting, please use the e-GGRT Help link(s) provided.

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

**Subpart D: View Validation**

**SOURCE SUMMARY**

Unit/Stack/Pipe ID	Status <sup>1</sup>	Delete
No units present		

[Add a Unit, Stack, or Pipe](#)

[Facility Overview](#)

<sup>1</sup> A status of "Incomplete" means that one or more required data elements are incomplete. For details, refer to the Data Completeness validation messages in your Validation Report by clicking the "View Validation" link above (Note: if there are no validation messages for this subpart you will not see this link).

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We start on the Subpart D Overview page, which is shown on this slide and may be accessed from the facility overview page. The first step to add a subpart D source will be to click the "Add a Unit, Stack, or Pipe" link.

**Add Unit/Stack/Pipe**

EPA Test Fac. C & D (2010)  
**Subpart D: Electricity Generation**  
 Subpart D Overview » **ADD/EDIT Unit/Stack/Pipe**

**ELECTRICITY GENERATING UNIT, STACK, OR PIPE INFORMATION**  
 Use this page to uniquely identify and define electricity generating units. Subpart D units must use the same identification number that represents the monitored location (i.e. unit, stack, or pipe) as is reported under §75.64.  
 For additional information about adding and editing a subpart D unit, stack, or pipe please use the e-GGRT Help link(s) provided.

**UNIT/STACK/PIPE INFORMATION**

Unit, stack or pipe ID\* (40 character maximum)  
 Unit Description (Optional)

**CO<sub>2</sub> METHODOLOGY INFORMATION**

Part 75 Methodology used\* to calculate CO<sub>2</sub> emissions:  
 Calculation Methodology\* Start Date  
 Calculation Methodology\* End Date

**ACID RAIN PROGRAM INFORMATION**

Is this unit/stack/pipe in\* the Acid Rain Program?  Yes  No

CANCEL **SAVE**

The Add Unit/Stack/Pipe page is essentially the same as the configuration identification page under subpart C.

For subpart D, the user must provide the unit, stack, or pipe ID representing the monitored location as reported under 40 CFR 75.64. The user must also specify the Part 75 methodology used to calculate CO<sub>2</sub> emissions on this page.

The user must identify if this unit, stack, or pipe is in the Acid Rain Program. Note that a start and end date must always be included. This does differ from Part 75 reporting, but explicit instructions are provided in e-GGRT for selecting the appropriate start and end dates.

Having entered all of the required information, we will hit save.

# Opening a Unit/Stack/Pipe



EPA Test Fac Abbreviated C (2010)

## Subpart D: Electricity Generation

### Subpart D Overview

#### OVERVIEW OF SUBPART D REPORTING REQUIREMENTS

Subpart D includes electricity generating units that are subject to the requirements of the Acid Rain Program and any other electricity generating units that are required to monitor and report to EPA CO<sub>2</sub> mass emissions year-round according to 40 CFR part 75. Electricity generating units that are not included in the definition of subpart D should be reported under subpart C. First, use this page to identify a unit, stack, or pipe and then enter the emission information required by subpart D for that unit, stack, or pipe.

For additional information about Subpart D reporting, please use the e-GGRT Help link(s) provided.

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

 [Subpart D: View Validation](#)

#### SOURCE SUMMARY

Unit/Stack/Pipe ID	Status <sup>1</sup>	Delete
 CS-1	Incomplete	<a href="#">OPEN</a> 

[+ Add a Unit, Stack, or Pipe](#)

[← Facility Overview](#)

<sup>1</sup> A status of "Incomplete" means that one or more required data elements are incomplete. For details, refer to the Data Completeness validation messages in your Validation Report by clicking the "View Validation" link above (Note: if there are no validation messages for this subpart you will not see this link).

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The newly added source shows up under the source summary table. You may edit the identification by clicking on the source ID. To proceed to emission reporting, we will click the "open" link on the right side of the screen.

# Opening Configuration-Level Emissions



**EPA Test Fac C & D (2010)**  
**Subpart D: Electricity Generation**  
Subpart D Overview - CS-1 • Unit/Stack/Pipe Overview

**ELECTRICITY GENERATING UNIT, STACK, OR PIPE SUMMARY**  
For each unit, stack, or pipe, Subpart D requires the reporting of aggregate emissions data for the unit, stack, or pipe. Subpart D also requires the reporting of CH<sub>4</sub> and N<sub>2</sub>O mass emissions for each fuel type listed in Table C-2 that was combusted in the unit(s) during the reporting year.

From this page, open the Unit, Stack, or Pipe Emissions Information page to report aggregate emissions information. Also from this page, the user should identify the fuels combusted in which CH<sub>4</sub> and N<sub>2</sub>O emissions were calculated according to 40 CFR 99.33(c)(4).

For additional information about Subpart D reporting, please use the e-GORT Help link(s) provided.

**UNIT/STACK/PIPE INFORMATION**

Unit/Stack/Pipe ID	CS-1
Description	
Part 75 CO <sub>2</sub> Methodology	CEMS
Calculation Methodology Period	01/01/2010 - 12/31/2010

[Edit the information for this Unit/Stack/Pipe](#)

**UNIT/STACK/PIPE EMISSIONS INFORMATION**

Total CO <sub>2</sub> emissions (short tons)	Total CO <sub>e</sub> emissions (metric tons)	Total Biogenic CO <sub>2</sub> emissions (metric tons)	Status <sup>1</sup>
			Incomplete <b>OPEN</b>

**FUEL-SPECIFIC CH<sub>4</sub> AND N<sub>2</sub>O EMISSIONS INFORMATION**

Fuel	Status <sup>1</sup>	Delete
No fuels present		

[ADD a Fuel](#)

[Subpart D Overview](#)

<sup>1</sup> A status of "incomplete" means that one or more required data elements are incomplete. For details, refer to the Data Completeness validation messages in your Validation Report by clicking the "View Validation" link on the overview page. (Note: if there are no validation messages for this subpart you will not see this link).

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This screen should look familiar by now. It is essentially the same as the configuration summary screen for subpart C.

First we will enter the "configuration-level" emissions information. We click "open" to proceed to the emissions information screen.

The screenshot shows the EPA e-GGRT interface for reporting emissions. The main title is 'Unit/Stack/Pipe Emissions Information'. The form is for 'Subpart D: Electricity Generation (2011)'. It includes a sidebar with 'Using e-GGRT for Subpart D Reporting' and 'Framework/Reduction Activities'. The main content area has several sections: 'UNIT/STACK/PIPE INFORMATION' with fields for 'Unit/Stack/Pipe ID' (CB-1), 'Description', 'Part 75 CO2 Methodology' (CB18), and 'Calculation Methodology' (Part 75). Below this is the 'TOTAL ANNUAL CO2 MASS EMISSIONS' section with input fields for 'Annual CO2 emissions including biomass (short tons)' (88118000), 'Annual CO2 emissions including biomass (metric tons)' (80000000), and 'Total biogenic CO2 mass emissions (metric tons)' (0). The 'MISSING DATA INFORMATION' section has three 'Total number of source operating hours in the reporting year that...' fields, all set to 30. A 'SAVE' button is circled in red at the bottom.

All subpart D configurations will have the same three Annual CO2 emission reporting requirements: Total CO2 emissions in short tons, Total CO2 emissions in metric tons, and total biogenic CO2 emissions in metric tons.

The total CO2 fields should match the CO2 value reported under Part 75. For the purposes of the emission roll-ups, e-GGRT will deduct the biogenic CO2 from the total CO2 to calculate the non-biogenic CO2. More details about the roll-up calculations for subpart C will be discussed at the end of this presentation.

In addition to CO2 emissions, this page also has required fields for reporting the hours of missing data pertaining to CO2 emissions calculations. Which missing data fields are shown will depend on which CO2 calculation methodology is used.

After entering the required information, we will save and return to the source overview page.

# Adding a Fuel



**EPA Test Fac. C & D (2010)**  
**Subpart D: Electricity Generation**  
Subpart D Overview • CS-1 • Unit/Stack/Pipe Overview

**ELECTRICITY GENERATING UNIT, STACK, OR PIPE SUMMARY**  
For each unit, stack, or pipe, Subpart D requires the reporting of aggregate emissions data for the unit, stack, or pipe. Subpart D also requires the reporting of CH<sub>4</sub> and N<sub>2</sub>O mass emissions for each fuel type listed in Table C-2 that was combusted in the unit(s) during the reporting year.

From this page, open the Unit, Stack, or Pipe Emissions Information page to report aggregate emissions information. Also from this page, the user should identify the fuels combusted in which CH<sub>4</sub> and N<sub>2</sub>O emissions were calculated according to 40 CFR 98.33(c)(4).

For additional information about Subpart D reporting, please use the e-GORT Help link(s) provided.

**UNIT/STACK/PIPE INFORMATION**

Unit/Stack/Pipe ID	CS-1
Description	
Part 75 CO <sub>2</sub> Methodology	CEMS
Calculation Methodology	01/01/2010 - 12/31/2010
Period	

[EDIT the information for this Unit/Stack/Pipe](#)

**UNIT/STACK/PIPE EMISSIONS INFORMATION**

Total CO <sub>2</sub> emissions (short tons)	Total CO <sub>2</sub> emissions (metric tons)	Total Biogenic CO <sub>2</sub> emissions (metric tons)	Status <sup>1</sup>	
5,511,500	5,000,000		0 Complete	<a href="#">OPEN</a>

**FUEL-SPECIFIC CH<sub>4</sub> AND N<sub>2</sub>O EMISSIONS INFORMATION**

Fuel	Status <sup>1</sup>	Delete
Default (Weighted U.S. Average)	Incomplete	<a href="#">OPEN</a>
<a href="#">ADD a Fuel</a>		

[EPA e-GORT Help](#)

<sup>1</sup> A status of "incomplete" means that one or more required data elements are incomplete. For details, refer to the Data Completeness validation messages in your Validation Report by clicking the "See Validation" link on the overview page. (Note: if there are no validation messages for this subpart you will not see this link.)

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Having entered the configuration-level emissions, we will now proceed to entering the fuel-specific information.

As with the Tier 4 and Part 75 configurations in subpart C, the fuel-specific reporting requirement is for CH<sub>4</sub> and N<sub>2</sub>O emissions. The first step to identifying fuel specific information is to add a fuel. We will now click on the "add a fuel" button near the bottom of the screen.



## Selecting Fuel Type

EPA Test Fac C & D (2010)  
**Subpart D: Electricity Generation**  
[Subpart D Overview](#) » [Add a Fuel](#)

**ADD A FUEL**

Use this page to select a fuel combusted in this unit, stack, or pipe. Units reporting under subpart D are only required to identify the fuels in which CH<sub>4</sub> and N<sub>2</sub>O emissions are calculated as required under 40 CFR 98.33(c)(4). If the fuel you wish to add is not on the list, click "ADD an Other Fuel or Blend" to add a new fuel type.

For additional information about reporting fuel information, please use the e-GORT Help link(s) provided.

COAL AND COKE	<a href="#">SHOW</a>	PETROLEUM PRODUCTS	<a href="#">SHOW</a>
NATURAL GAS	<a href="#">HIDE</a>	OTHER FUELS - SOLID	<a href="#">SHOW</a>
<input checked="" type="radio"/> Natural Gas (Weighted U.S. Average)		OTHER FUELS - GASEOUS	<a href="#">SHOW</a>
↓ If a fuel is not found among those listed, you can add it to the other fuels and blends list below.		BIOMASS FUELS - SOLID	<a href="#">SHOW</a>
OTHER FUELS AND BLENDS	<a href="#">SHOW</a>	BIOMASS FUELS - GASEOUS	<a href="#">SHOW</a>
		BIOMASS FUELS - LIQUID	<a href="#">SHOW</a>

[CANCEL](#)
[SAVE](#)

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The add a fuel screen is the same under subpart D as it is for subpart C. For this example we will select natural gas and hit "save".

# Opening Fuel-Specific Emissions Page



**EPA Test Fac C & D (2010)**  
**Subpart D: Electricity Generation**  
Subpart D Overview » [CS-1 » Unit Stack/Pipe Overview](#)

**ELECTRICITY GENERATING UNIT, STACK, OR PIPE SUMMARY**  
For each unit, stack, or pipe, Subpart D requires the reporting of aggregate emissions data for the unit, stack, or pipe. Subpart D also requires the reporting of CH<sub>4</sub> and H<sub>2</sub>O mass emissions for each fuel type listed in Table C-2 that was combusted in the unit(s) during the reporting year.

From this page, open the Unit, Stack, or Pipe Emissions Information page to report aggregate emissions information. Also from this page, the user should identify the fuels combusted in which CH<sub>4</sub> and H<sub>2</sub>O emissions were calculated according to 40 CFR 98.33(c)(4).

For additional information about Subpart D reporting, please use the e-GORT Help link(s) provided.

**UNIT/STACK/PIPE INFORMATION**

Unit/Stack/Pipe ID	CS-1
Description	
Part 75 CO <sub>2</sub> Methodology	CEMS
Calculation Methodology Period	01/01/2010 - 12/31/2010

[Edit the information for this Unit/Stack/Pipe](#)

**UNIT/STACK/PIPE EMISSIONS INFORMATION**

Total CO <sub>2</sub> emissions (short tons)	Total CO <sub>2</sub> emissions (metric tons)	Total Biogenic CO <sub>2</sub> emissions (metric tons)	Status <sup>1</sup>	
5,511,500		5,000,000	0 Complete	<a href="#">OPEN</a>

**FUEL-SPECIFIC CH<sub>4</sub> AND H<sub>2</sub>O EMISSIONS INFORMATION**

Fuel	Status <sup>1</sup>	
Natural Gas (Weighted U.S. Average)	Incomplete	<a href="#">OPEN</a>

[+ ACO » Fuel](#)

[Subpart D Overview](#)

<sup>1</sup> A status of "incomplete" means that one or more required data elements are incomplete. For details, refer to the Data Completeness validation messages in your Validation Report by clicking the "View Validation" link on the overview page. (Note: if there are no validation messages for this subpart you will not see this link.)

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Natural Gas has now been added under the fuel table. To enter emissions for natural gas we will click the "open" button to the right of natural gas in the table.

## Subpart D – Fuel-Specific Emissions



EPA Test Fac C & D (2010)

### Subpart D: Electricity Generation

[Subpart D Overview](#) » [CS-1 » Natural Gas \(Weighted U.S. Average\)](#) » **Fuel-Specific CH<sub>4</sub>/N<sub>2</sub>O Emissions**

#### FUEL-SPECIFIC CH<sub>4</sub> AND N<sub>2</sub>O EMISSIONS

Use this page to enter the annual CH<sub>4</sub> and N<sub>2</sub>O emissions information for this fuel. For additional information about the data collected on this page, please use the e-GGRT Help link(s) provided.

218  
Annual CO<sub>2</sub>e for CH<sub>4</sub> (metric tons)

468  
Annual CO<sub>2</sub>e for N<sub>2</sub>O (metric tons)

#### UNIT/STACK/PIPE INFORMATION

Unit/Stack/Pipe ID	CS-1
Description	
Part 75 CO <sub>2</sub> Methodology	CEMS
Calculation Methodology Period	01/01/2010 - 12/31/2010
Fuel	Natural Gas (Weighted U.S. Average)

#### CO<sub>2</sub> EQUIVALENT EMISSIONS

CO<sub>2</sub> equivalent value for Annual CH<sub>4</sub> emissions 217,8423 (metric tons)  
[Use Equation C-10 spreadsheet to calculate](#)

CO<sub>2</sub> equivalent value for Annual N<sub>2</sub>O emissions 467,7480 (metric tons)  
[Use Equation C-10 spreadsheet to calculate](#)

CANCEL **SAVE**

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Under subpart D, you are required to report the CO<sub>2</sub> equivalent emissions of CH<sub>4</sub> and N<sub>2</sub>O for each fuel combusted. This page will allow the user to enter those values. Clicking save will return us to the source summary page. After all of the fuel-specific emissions values have been reported, the user will have entered all of the required information for the applicable unit, stack, or pipe in subpart D.

Next we will review some of the basic data validation errors that can occur when entering information in subparts C and D.



# Data Validation

# Real-Time Validation



EPA Test Fac Abbreviated C (2010)

## Subpart D: Electricity Generation

### Subpart D Overview

#### OVERVIEW OF SUBPART D REPORTING REQUIREMENTS

Subpart D includes electricity generating units that are subject to the requirements of the Acid Rain Program and any other electricity generating units that are required to monitor and report to EPA CO<sub>2</sub> mass emissions year-round according to 40 CFR part 75. Electricity generating units that are not included in the definition of subpart D should be reported under subpart C. First, use this page to identify a unit, stack, or pipe and then enter the emission information required by subpart D for that unit, stack, or pipe.

For additional information about Subpart D reporting, please use the e-GGRT Help link(s) provided.

The EPA Administrator has signed a rule that defers collection of data elements used as inputs to emission equations for direct reports. The rule will be published in the Federal Register, a republication version of the rule is available on our website at

<http://www.epa.gov/climatechange/emissions/CBI.html>. In accordance with the rule, e-GGRT is not currently collecting data categorized as inputs to emission equations.

 [Subpart D: View Validation](#)

#### SOURCE SUMMARY

Unit/Stack/Pipe ID	Status <sup>1</sup>	Delete
 CS-1	Incomplete	<a href="#">OPEN</a> 

[Add a Unit, Stack, or Pipe](#)

[← Facility Overview](#)

<sup>1</sup> A status of "Incomplete" means that one or more required data elements are incomplete. For details, refer to the Data Completeness validation messages in your Validation Report by clicking the "View Validation" link above (Note: if there are no validation messages for this subpart you will not see this link).

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Validation Types: e-GGRT generates a variety of validation warning 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.

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

## Validation – Screen Errors



EPA Test Fac Abbreviated C (2010)  
**Subpart D: Electricity Generation**  
Subpart D Overview [Add/Edit Unit/Stack/Pipe](#)

**ELECTRICITY GENERATING UNIT, STACK, OR PIPE INFORMATION**  
Use this page to uniquely identify and define electricity generating units. Subpart D units must use the same identification number that represents the monitored location (i.e. unit, stack, or pipe) as is reported under 575.54.  
For additional information about adding and editing a subpart D unit, stack, or pipe please use the e-GGRT Help link (bottom left).

**SCREEN ERRORS**

- Unit Name is required.
- Part 75 methodology. This data element is required.
- You did not indicate if this unit or group of units reports under Part 75 (Acid Rain Program). This data element is required.

**UNIT/STACK/PIPE INFORMATION**

Unit, stack or pipe ID\*  (40 characters maximum)  
numbers as reported under 575.54

Unit Description (Optional)

**CO<sub>2</sub> METHODOLOGY INFORMATION**

Part 75 Methodology used to calculate CO<sub>2</sub> emissions

Calculation Methodology\* Start Date   
Enter the date for which this calculation methodology was first used to comply with Part 98. If this methodology was in use prior to January 1, 2010 select January 1, 2010 as the start date. If the facility switched to this methodology during 2010, enter the date on which the methodology change occurred.

Calculation Methodology\* End Date   
If no change in calculation methodology occurred during 2010, select December 31, 2010 as the end date. If a change in calculation methodology occurred, enter the date on which this methodology was last used.

**ACID RAIN PROGRAM INFORMATION**

Is this unit/stack/pipe in the Acid Rain Program?  Yes  No

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Screen errors will occur when a data value has not been entered for a required field. You may not proceed to the next screen until a value has been entered in every field marked with a red asterisk. The fields marked with a red asterisk are necessary information for e-GGRT and must be filled in before you can proceed to the next reporting screen. The absence of a “required field” indicator is not an indication that it is not a required reporting field in part 98.

We will now review how to check for data completeness.

# Validation - Data Completeness



**CONFIGURATION INFORMATION**

Configuration Type	Single Unit Using Tiers 1, 2, or 3
Unit Name ID	Unit 100
Description	
Unit Type	PCVD (Pulverized coal, wall-fired, dry bottom)
Maximum Rated Heat Input Capacity	500 (mmBtu/hr)

[Edit this Configuration Information](#)

**CONFIGURATION-LEVEL EMISSIONS INFORMATION**

Total Biogenic CO <sub>2</sub> Emissions (metric tons)	Total CO <sub>2</sub> Emissions from Sorbent Usage (metric tons)	Status <sup>1</sup>
		Incomplete <a href="#">OPEN</a>

**FUEL-SPECIFIC EMISSIONS INFORMATION** (for fuels combusted at this reporting configuration)

Fuel	Calculation Period	Methodology	Status <sup>1</sup>	Delete
<a href="#">+</a> Natural Gas (Weighted U.S. Average)	01/01/2010 - 12/31/2010	Tier 1 (Equation C-1)	Incomplete	<a href="#">OPEN</a> <a href="#">✖</a>

[ADD a Fuel](#)

[Subpart C Overview](#)

<sup>1</sup> A status of "Incomplete" means that one or more required data elements are incomplete. For details, refer to the Data Completeness validation messages in your Validation Report by clicking the "View Validation" link on the overview page. (Note: if there are no validation messages for this subpart you will not see this link).

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For an example of data completeness, we will illustrate what happens when a new fuel is added. At this point we have added the fuel, but not entered any emissions information.

Let's see what is indicated on the subpart C Overview page at this time.

# Validation Warning Sign



EPA Test Fac Abbreviated C (2010)  
**Subpart C: General Stationary Fuel Combustion**  
**Subpart C Overview**

**OVERVIEW OF SUBPART C REPORTING REQUIREMENTS**  
Subpart C requires affected facilities to report annual carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), and nitrous oxide (N<sub>2</sub>O) emissions from each stationary combustion unit. First, use this page to identify each stationary combustion reporting *configuration* (reporting options listed in §98.36) and then enter emissions information required by subpart C for each configuration.  
For additional information about subpart C reporting, please use the e-GORT Help link(s) provided.

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

 **Subpart C: View Validation**

**CONFIGURATION SUMMARY**

Configuration Name or ID	Configuration Type	Status <sup>1</sup>	Delete
Unit 1x	Single Unit Using Tiers 1, 2, or 3	Incomplete	<a href="#">OPEN</a> 

[Add a Configuration](#)  
[Facility Overview](#)

<sup>1</sup> A status of "Incomplete" means that one or more required data elements are incomplete. For details, refer to the Data Completeness validation messages in your Validation Report by clicking the "View Validation" link above (Note: if there are no validation messages for this subpart you will not see this link).

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As you can see, on the Subpart C Overview screen, the warning sign on the right side of the screen indicates that one or more of the validation flags were triggered. If we click on the “view validation” link we will be taken to the validation report.

# Subpart C Validation Report



e-ORRT Help  
Using e-ORRT for Subpart C reporting

EPA Test Fac: Abbreviated C (2010)  
**Subpart C: General Stationary Fuel Combustion**  
Subpart Overview » Validation Report

**SUBPART C 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-ORRT Help link(s) provided.

[Print-friendly version](#)

**FACILITY-LEVEL VALIDATION MESSAGES**

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

**CONFIGURATION-LEVEL VALIDATION MESSAGES**

Validation Type <sup>1</sup>	ID <sup>2</sup>	Unit Name	Message <sup>3</sup>
Data Completeness	C125	Unit 1x	Annual carbon dioxide emissions from combustion of all biomass fuels combined (if any of the unit burn fuels AND biomass). This data element is required.
Data Completeness	C128	Unit 1x	Annual carbon dioxide emissions from solvent. This data element is required.

**FUEL-LEVEL VALIDATION MESSAGES**

Validation Type <sup>1</sup>	ID <sup>2</sup>	Unit Name	Fuel Name	Message <sup>3</sup>
Data Completeness	C140	Unit 1x	Natural Gas (Weighted U.S. Average)	Annual carbon dioxide emissions from combustion of the specified fuel. This data element is required.

[Subpart Overview](#)

<sup>1</sup> Validation Types: e-ORRT 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-ORRT 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.

<sup>2</sup> ID: Each validation message has a unique identifier. If you contact the e-ORRT Help Desk with a question about a validation message, please include this unique identifier with your request.

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

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Several completeness entries will be shown for the data fields that currently have no information entered. To resolve these errors the user will need to enter information into each of the relevant fields. The unit and if applicable, fuel that are missing the information are identified. A link to the page containing the error is also provided with each error message.

# Validation – Range Check



**FUEL-SPECIFIC EMISSIONS**  
Use this page to enter the annual greenhouse gas emissions information for this fuel. The user is required to enter CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, sampling frequency and mixing data information (as applicable) for each fuel type. For additional information about the data collected on this page, please use the e-CGR7 Help links) provided.

100000000000.0  
Annual CO<sub>2</sub> (metric tons)  
0.17  
Annual CH<sub>4</sub> (metric tons)  
0.017  
Annual N<sub>2</sub>O (metric tons)

**CONFIGURATION-FUEL PERIOD**  
Unit or Group Name ID Unit Tx  
Configuration Type Single Unit Using Tiers 1, 2, or 3  
Fuel (Fuel Type) Natural Gas (Weighted U.S. Average) (Natural Gas)  
Reporting Period 01/01/2010 - 12/31/2010

**EQUATION C-8 SUMMARY AND RESULTS**  
$$\text{CO}_2 = 1 \times 10^9 \times \text{Fuel} \times \text{HHV} \times \text{EF}$$
  
Hover over an element in the equation above to reveal a definition of that element.  
Annual CO<sub>2</sub> emissions from combustion of the specified fuel 100000000000 (metric tons)  
Use Equation C-F-C-8 spreadsheet to calculate

**EQUATION C-8 SUMMARY AND RESULTS**  
$$\text{CH}_4 \text{ or } \text{H}_2\text{O} = 1 \times 10^9 \times \text{Fuel} \times \text{HHV} \times \text{EF}$$
  
Hover over an element in the equation above to reveal a definition of that element.  
Annual CH<sub>4</sub> emissions from combustion of the specified fuel 17 (metric tons)  
Use Equation C-F-C-8 spreadsheet to calculate  
Annual N<sub>2</sub>O emissions from combustion of the specified fuel 0.017 (metric tons)  
Use Equation C-F-C-8 spreadsheet to calculate

**CO<sub>2</sub> EQUIVALENT EMISSIONS**  
CO<sub>2</sub> equivalent value for Annual CH<sub>4</sub> emissions 3.6 (metric tons)  
CO<sub>2</sub> equivalent value for Annual N<sub>2</sub>O emissions 5.3 (metric tons)

CANCEL SAVE

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To correct the validation errors we go back to the emissions information screen for natural gas. If we enter emissions numbers, but enter an exceedingly large CO<sub>2</sub> emission value for natural gas, a range check error will be flagged.

# Validation – Range Check



**e-GORT Help**  
Using e-GORT for Subpart C reporting

EPA Test Fac Abbreviated C (2010)  
**Subpart C: General Stationary Fuel Combustion**  
Subpart Overview – Validation Report

**SUBPART C 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-GORT Help link(s) provided. [Print-friendly version](#)

**FACILITY-LEVEL VALIDATION MESSAGES**  
Validation Type<sup>1</sup> ID<sup>2</sup> Message<sup>3</sup>  
No facility level validation messages.

**CONFIGURATION-LEVEL VALIDATION MESSAGES**  
Validation Type<sup>1</sup> ID<sup>2</sup> Unit Name Message<sup>3</sup>  
No configuration level validation messages.

**FUEL-LEVEL VALIDATION MESSAGES**  
Validation Type<sup>1</sup> ID<sup>2</sup> Unit Name Fuel Name Message<sup>3</sup>

Validation Type <sup>1</sup>	ID <sup>2</sup>	Unit Name	Fuel Name	Message <sup>3</sup>
Data Quality	C140	Unit 1x	Natural Gas (Weighted U.S. Average)	Annual carbon dioxide emissions from combustion of the specified fuel. 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.

**Subpart Overview**

<sup>1</sup> Validation Types: e-GORT 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-GORT 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.

<sup>2</sup> ID: Each validation message has a unique identifier. If you contact the e-GORT Help Desk with a question about a validation message, please include this unique identifier with your request.

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

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The validation type will be shown as a “data quality” error and it will refer to the specific element that is outside the EPA estimated range for this value. Note that the range is set the same for all unit sizes and the error will likely only trigger in extreme cases in subpart C.



# Emission Roll-ups

## Emission Roll-ups



- E-GGRT automatically calculates emissions totals for each subpart and aggregates the subpart totals into facility or supplier totals
- E-GGRT satisfies the reporting requirements in 40 CFR 98.3(c)(4)(i) – (iii) and (c)(12) for facilities and 98.3(c)(5) for suppliers.
- Annual emissions are calculated from each applicable subpart, for each of the following GHGs (in metric tons of each gas)
  - Biogenic CO<sub>2</sub>\*
  - CO<sub>2</sub> (excluding biogenic CO<sub>2</sub>)
  - CH<sub>4</sub>
  - N<sub>2</sub>O
  - Each fluorinated GHG
- The subpart totals are rolled-up into the following facility totals
  - Total CO<sub>2</sub> equivalent for all sources and all GHGs with the exception of biogenic CO<sub>2</sub>
  - Biogenic CO<sub>2</sub> from all sources\*

\*The roll-up calculation for supplier categories is the same as for direct emitters, but no distinction is made for biogenic CO<sub>2</sub>

## Emission Roll-ups



- If certain reporting elements are left blank, the roll-ups may not be performed correctly
- E-GGRT does not double count emissions within each subpart
- Some required reporting fields are not used in the roll-up calculations, but you still need to enter information for these fields
- Roll-ups are calculated independently for each subpart

## Some Useful Terminology



- Total CO<sub>2</sub> emissions
  - Measured or calculated value of CO<sub>2</sub> that includes both biogenic and non-biogenic emissions
- Biogenic CO<sub>2</sub> emissions
  - CO<sub>2</sub> emissions from biomass fuels
  - Biogenic portion of CO<sub>2</sub> from fuels with a fossil and biomass component (i.e. MSW and tires)
- Non-Biogenic CO<sub>2</sub> emissions
  - CO<sub>2</sub> emissions from fossil fuels
  - Sorbent CO<sub>2</sub>
  - Process CO<sub>2</sub>
  - Fossil fuel fraction of CO<sub>2</sub> from fuels with a fossil and biomass component (i.e. MSW and tires)
- Fossil fuel CO<sub>2</sub> emissions
  - CO<sub>2</sub> emissions from fossil fuels
  - Fossil fuel portion of CO<sub>2</sub> from fuels with a fossil and biomass component (i.e. MSW and tires)

# Data Roll-Up (GHG Totals)



EPA Test Fac C & D (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](#))

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

**REPORT DATA**

2010 Reporting Source or Supplier Category	Validation Messages	Subpart Reporting
Subpart A--General Information	<a href="#">View Messages</a>	<a href="#">OPEN</a>
Subpart C--General Stationary Fuel Combustion Sources	<a href="#">View Messages</a>	<a href="#">OPEN</a>
Subpart D--Electricity Generation	<a href="#">View Messages</a>	<a href="#">OPEN</a>

[ADD or REMOVE Subparts](#)

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

**SUBMIT ANNUAL REPORT**

Report	Uploaded File Name	Status	Submitted Date	Certification Date
2010 Annual Report v1		Ready for review		

[GENERATE / SUBMIT](#)

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

[SAVE](#)

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1. This is where the “rollup” is presented, which provides your total CO2 equivalent emissions (excluding biogenic) and biogenic CO2 emissions. The third total presented in the “roll up” is the **quantity** of CO2 equivalent for suppliers.

If you click on “view GHG details” you can see the underlying details on the metric tons of GHGs, by gas and by subpart, along with the GWP’s that go into the calculations.

## Roll-Up: View GHG Details



EPA Test Fac C & D (2010)  
**e-GGRT Greenhouse Gas Data Reporting**  
 Select Facility → Facility or Supplier Overview → **GHG Quantity Details**

**FACILITY GHG QUANTITY DETAIL**  
 Below are the current roll-up GHG values for this facility.

2010 CO <sub>2</sub> equivalent emissions (excluding biogenic) from subparts C - HH (metric tons)	4,452,025.5
2010 biogenic CO <sub>2</sub> emissions from subparts C - HH (metric tons)	166,500.0
2010 CO <sub>2</sub> equivalent quantity from supplier categories (metric tons)	0.0

[VIEW DETAILED ROLLUP VALUES](#)

**GHG DETAILS (source categories, subparts C - HH)**

Subpart	Greenhouse Gas	Amount (metric tons)	GWP
Subpart C	CO <sub>2</sub> (biogenic)	166,500.0	1
Subpart C	CO <sub>2</sub> (excluding biogenic)	4,417,055.0	1
Subpart C	CH <sub>4</sub>	530.23	21
Subpart C	N <sub>2</sub> O	79.470	310
Subpart D	CO <sub>2</sub> (biogenic)	0.0	1
Subpart D	CO <sub>2</sub> (excluding biogenic)	0.0	1
Subpart D	CH <sub>4</sub>	0.00	21
Subpart D	N <sub>2</sub> O	0.000	310

**GHG DETAILS (supplier categories, subparts NN - PP)**  
 No GHG data found for subparts NN - PP.

[Facility Overview](#)

<sup>1</sup> Downstream categories include subparts C through HH.  
<sup>2</sup> Upstream categories include subparts NN through PP, also referred to as the "supplier categories".

Viewing the GHG details allows you to see the individual subpart components that were tallied into the Roll-Up totals.

Note that the roll ups are in CO<sub>2</sub> equivalent metric tons, in some cases this value will differ from the subpart data you entered because in the subpart you entered data for a gas with a higher Global Warming Potential than CO<sub>2</sub>.

# Roll-Up: Detailed Roll-Up Values



**SUBPART TOTALS FOR EACH GRS (AGGREGATED ACROSS UNITS, FUELS, ETC.)**  
 Note: Subpart totals for each GRS are calculated by summing across each process unit, fuel, or other reporting level identified within a given report (shown in the "detail" option below). Note that for Subpart C through J, biogenic CO<sub>2</sub> emissions are aggregated separately from non-biogenic CO<sub>2</sub> emissions. For Subpart F, Total CO<sub>2</sub> represents the total of both biogenic and non-biogenic CO<sub>2</sub>.

Subpart Name	Total CO <sub>2</sub> excluding biogenic (metric tons)	Biogenic CO <sub>2</sub> (metric tons)	Total CH <sub>4</sub> (metric tons)	Total N <sub>2</sub> O (metric tons)
B	0.0	0.0	0.0	0.000
C	4,417,055.0	166,500.0	630.23	79.470

**SUBPART DETAILS**

**SUBPART D**

Total CO <sub>2</sub> excluding biogenic (metric tons)	Biogenic CO <sub>2</sub> (metric tons)	Total CH <sub>4</sub> (metric tons)	Total N <sub>2</sub> O (metric tons)
0.0	0.0	0.00	0.000

**EMISSIONS REPORTED FOR EACH UNIT OR CONFIGURATION**

Unit/Configuration Name	Total CO <sub>2</sub> excluding biogenic (metric tons)	Biogenic CO <sub>2</sub> (metric tons)	Total CH <sub>4</sub> (metric tons)	Total N <sub>2</sub> O (metric tons)
empty	0.00		0.00	0.000

**EMISSIONS REPORTED FOR EACH FUEL**

Fuel Name	Unit/Configuration Name	Technology	Total CO <sub>2</sub> excluding biogenic (metric tons)	Biogenic CO <sub>2</sub> (metric tons)	Total CH <sub>4</sub> (metric tons)	Total N <sub>2</sub> O (metric tons)
Woodchips	WCH (1)		0.00		0.00	0.000

**SUBPART E**

Total CO <sub>2</sub> excluding biogenic (metric tons)	Biogenic CO <sub>2</sub> (metric tons)	Total CH <sub>4</sub> (metric tons)	Total N <sub>2</sub> O (metric tons)
4,417,055.0	166,500.0	630.23	79.470

**EMISSIONS REPORTED FOR EACH UNIT OR CONFIGURATION**

Unit/Configuration Name	Total CO <sub>2</sub> excluding biogenic (metric tons)	Biogenic CO <sub>2</sub> (metric tons)	Total CH <sub>4</sub> (metric tons)	Total N <sub>2</sub> O (metric tons)
Unit 10	10,000.0	0.0	0.15	0.005

**EMISSIONS REPORTED FOR EACH FUEL**

Fuel Name	Unit/Configuration Name	Technology	Total CO <sub>2</sub> excluding biogenic (metric tons)	Biogenic CO <sub>2</sub> (metric tons)	Total CH <sub>4</sub> (metric tons)	Total N <sub>2</sub> O (metric tons)
Subpart (see "Detailed Roll-Up" U.S. Emissions)	Unit 10	See 1.0 (Subpart C-1)				

EPA has also included a page called "Detailed Rollup Values". This page shows the intermediate calculation steps for the roll-up calculations. It shows the emissions reported for each fuel, and the breakdown of non-biogenic CO<sub>2</sub>, biogenic CO<sub>2</sub>, and methane and nitrous oxide emissions for each unit, as calculated by e-GGRT.

## Questions?



- For more information about e-GGRT or the GHGRP
  - <http://www.ccdsupport.com>
  - [www.epa.gov/ghgreporting/reporters/index.html](http://www.epa.gov/ghgreporting/reporters/index.html)
  - Email: [GHGreporting@epa.gov](mailto:GHGreporting@epa.gov)

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This concludes our training session for today. We hope this overview has provided you greater familiarity with navigating and entering information using the e-GGRT reporting tool.

**Here are some additional links should you have further questions or if you would like to submit a question about the Greenhouse Gas Reporting Program.**