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Subpart D - Electricity Generation

 A printer-friendly version (pdf) (11 pp, 1,423K) of GHG reporting instructions for this subpart

Please select a help topic from the list below:

- Using e-GGRT to Prepare Your Subpart D Report
 - Subpart D Unit Information
 - Subpart D Unit Emissions Information
 - Subpart D Fuel Information
 - Subpart D Fuel Emissions Information
- Subpart D - Inputs Whose Reporting Deadline Was Deferred Until 2013
- Carry forward of data from previous submissions into RY2012 forms
- Subpart D Rule Guidance
- Subpart D Rule Language (eCFR)

Additional Resources:

- Part 98 Terms and Definitions
- Frequently Asked Questions (FAQs)
- Webinar Slides

Using e-GGRT to Prepare Your Subpart D Report

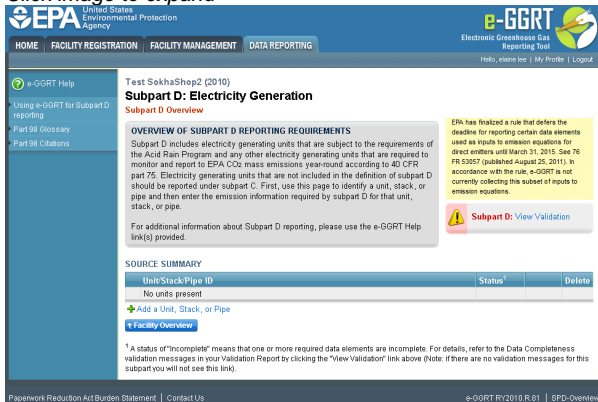
This page provides an overview of subtopics that are central to Subpart D Electricity Generation reporting:

- Unit Information
- Unit Emissions Information
- Fuel Information
- Fuel Emissions Information
- Subpart Validation Report

If you previously reported for Reporting Year (RY) 2011, the Agency has carried some of your RY2011 data forward and entered it in your RY2012 forms to reduce the reporting burden. It is still your responsibility to review and ensure that all of the information in your submission is correct, but the Agency believes that most of the data which is carried forward is unlikely to change significantly from year to year. For more information about carry forward data, please see the [Carry forward of data from previous submissions into RY2012 forms help content](#).

The end of the page contains links you can use for more information on these topics.

Click image to expand



The screenshot shows the EPA e-GGRT web application interface. The top navigation bar includes 'HOME', 'FACILITY REGISTRATION', 'FACILITY MANAGEMENT', and 'DATA REPORTING'. The main content area is titled 'Test SokhaShop2 (2010) Subpart D: Electricity Generation' and features a 'Subpart D Overview' section. This section contains an 'OVERVIEW OF SUBPART D REPORTING REQUIREMENTS' and a 'SOURCE SUMMARY' table. A yellow callout box on the right side of the overview section contains a message from EPA regarding a rule change for data elements used as inputs to emission equations for direct emitters. The 'SOURCE SUMMARY' table shows 'No units present' and includes a '+ Add a Unit, Stack, or Pipe' button. The footer of the page includes 'Paperwork Reduction Act Burden Statement | Contact Us' and 'e-GGRT RY2010 R.B1 | SPD-Overview'.

Unit Information

Starting on the Subpart D Overview screen, click the link titled "ADD a Unit or Group" below the UNIT-LEVEL SUMMARY table.

Click image to expand

For each unit, stack, or pipe at your facility, subpart D requires the following information:

- A unique unit, stack, or pipe name or identifier (e.g., a unit ID number) as reported under 40 CFR 75.64 [98.36(d)(1)(i)]
- An optional unit or stack description or label [optional]
- The Part 75 methodology used to determine the CO₂ mass emissions [98.36(d)(1)(v)]
 - CEMS
 - Appendix G, Equation G-1
 - Appendix G, Equation G-4
 - Low Mass Emissions (LME) (§75.19(c)(4)(iii))
- The methodology start date and end date [98.36(d)(1)(vi)-(vii)]
- An indication of participation in the Acid Rain Program [98.36(d)(1)(viii)]
- Each type of fuel combusted in the configuration during the reporting year (Table C-2 fuels only) [98.36(d)(1)(iii)]

Unit Emissions Information

For each unit, subpart D requires the facility to provide the following aggregated fuel emissions data:

- The total annual CO₂ emissions at the monitored location in short tons (as reported in part 75) [98.36(d)(1)(ii)]
- The total annual CO₂ emissions at the monitored location in metric tons (conversion from the short ton value reported in part 75) [98.36(d)(1)(ii)]
- The total annual biogenic CO₂ emissions. This includes both CO₂ emissions from the combustion of biomass fuels and the biogenic portion of CO₂ emissions from fuels with a mixed biogenic and fossil component [98.36(d)(1)(ix)]

For each unit for which the facility selects "**CEMS**" as the Part 75 methodology used to determine CO₂ mass emissions, subpart D requires the facility to provide the following additional information [98.3(c)(8)]:

- The total number of operating hours during the year that CO₂ concentration was missing
- The total number of operating hours during the year that stack gas flow rate was missing
- The total number of operating hours during the year that moisture content was missing (only if a continuous moisture monitor was in use)

For each unit for which the facility selects "**Appendix G, Equation G-1**" as the Part 75 methodology used to determine CO₂ mass emissions, subpart D requires the facility to provide the following additional information [98.3(c)(8)]:

- The total number of operating hours during the year that fuel carbon content was missing

For each unit for which the facility selects "**Appendix G, Equation G-4**" as the Part 75 methodology used to determine CO₂ mass emissions, subpart D requires the facility to provide the following additional information [98.3(c)(8)]:

- The total number of operating hours during the year that fuel flow rate was missing
- The total number of operating hours during the year that high heating value was missing

For each unit for which the facility selects "**LME calculation methods in §75.19(c)(4)(iii)**" as the Part 75 methodology used to determine CO₂ mass emissions, no additional information is required.

Fuel Information

For each unit, subpart D requires the facility to report each type of fuel combusted in the configuration during the reporting year (for Table C-2 fuels only) [98.36(d)(1)(iii)].

Fuel Emissions Information

Subpart D requires the entry of the total heat input for each fuel type listed in Table C-2 combusted in each unit (except as otherwise provided in 98.33(c)(4)(ii)(B)) in units of mmBtu. Enter this value in the text box provided in the EQUATION C-10 SUMMARY AND RESULTS section. [98.36(d)(1)(iv)]

e-GGRT will calculate CH₄ and N₂O emissions from the total heat input entered using Equation C-10 and display the results under ANNUAL CH₄ EMISSIONS and ANNUAL N₂O EMISSIONS, respectively. [98.36(d)(1)(iii)]

If you calculated CH₄ and N₂O emissions for a blended fuel according to 98.33(c)(6)(ii), you can override the automatically calculated emissions values by selecting the "Enter my own result (value will be rounded)" radio buttons under ANNUAL CH₄ EMISSIONS and ANNUAL N₂O EMISSIONS. Enter the CH₄ and N₂O values you calculated in the "Report this value" fields.

Click image to expand

ANNUAL CH₄ EMISSIONS
Annual CH₄ emissions from combustion of the specified fuel (metric tons)
Report which CH₄ result?
 Use the calculated result rounded
 Enter my own result (value will be rounded)
Report this value (metric tons)

ANNUAL N₂O EMISSIONS
Annual N₂O emissions from combustion of the specified fuel (metric tons)
Report which N₂O result?
 Use the calculated result rounded
 Enter my own result (value will be rounded)
Report this value (metric tons)

CO₂ EQUIVALENT EMISSIONS
CO₂ equivalent value for Annual CH₄ emissions (metric tons)
CO₂ equivalent value for Annual N₂O emissions (metric tons)

CANCEL SAVE

Paperwork Reduction Act Burden Statement | Contact Us e-GGRT RY2012R.13 | SPD-FuelEmissions

Subpart Validation Report

The Validation Report assists with the completeness and quality of your reporting data.

We strongly encourage you to use the Validation Report to check your work. The Validation Report performs two types of checks:

- Data Completeness: Data required for reporting that are missing or incomplete.
- Data Quality: Data that are outside of the expected range of values.

You may view the Validation Report at any time.



Note that the Validation Report is intended to assist users in entering data, but it is not an indication that the reporter has entered all necessary information, nor is it an indication that the reporter is in compliance with part 98. Furthermore a negative finding on the validation report is not a guarantee that a data element was entered incorrectly.

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See Also

[Screen Errors](#)

[Subpart D Unit Information](#)

[Subpart D Unit Emissions Information](#)

[Subpart D Fuel Information](#)

[Subpart D Fuel Emissions Information](#)

[Subpart Validation Report](#)

Subpart D Unit Information

This topic provides a step-by-step description of how to enter subpart D Electricity Generation unit information for this facility.

Adding or Updating Unit Information for this Facility

Click image to expand

The screenshot shows the EPA e-GGRT interface for ABC Petroleum. The main heading is "Subpart D: Electricity Generation (2011)". Below this is an "OVERVIEW OF SUBPART D REPORTING REQUIREMENTS" section, followed by a "SOURCE SUMMARY" table. The table has columns for "Unit/Stack/Pipe ID", "Status", and "Delete". It currently shows "No units present" and a button to "Add a Unit, Stack, or Pipe". A yellow warning box on the right states: "EPA has finalized a rule that defers the deadline for reporting certain data elements used as inputs to emission equations for direct emitters until March 31, 2015. See 76 FR 53657 (published August 25, 2011). In accordance with the rule, e-GGRT is not currently collecting this subset of inputs to emission equations." A "Subpart D: View Validation" button is also visible.

Starting on the Subpart D Overview screen, click the link titled "ADD a Unit or Group" below the UNIT-LEVEL SUMMARY table.

Click image to expand

The screenshot shows the "Add/Edit Unit/Stack/Pipe" screen in the EPA e-GGRT system for DR Enterprises - TEST. The main heading is "Subpart D: Electricity Generation (2012)". The form is divided into several sections: "ELECTRICITY GENERATING UNIT, STACK, OR PIPE INFORMATION" with a text box for "Unit, stack or pipe ID" (containing "Unit 10") and a dropdown for "Unit Description (Optional)"; "CO₂ METHODOLOGY INFORMATION" with a dropdown for "Part 75 Methodology used" (set to "CEMS"), a date field for "Calculation Methodology Start Date" (01/01/2012), and another for "Calculation Methodology End Date" (12/31/2012); and "ACID RAIN PROGRAM INFORMATION" with radio buttons for "Is this unit/stack/pipe in the Acid Rain Program?" (Yes/No). "CANCEL" and "SAVE" buttons are at the bottom.

For each unit, stack, or pipe at your facility, subpart D requires the following information:

- A unique unit, stack, or pipe name or identifier (e.g., a unit ID number) as reported under 40 CFR 75.64 [98.36(d)(1)(i)]
- An optional unit or stack description or label [optional]
- The Part 75 methodology used to determine the CO₂ mass emissions [98.36(d)(1)(v)]
 - CEMS
 - Appendix G, Equation G-1
 - Appendix G, Equation G-4
 - Low Mass Emissions (LME) (§75.19(c)(4)(iii))
- The methodology start date and end date [98.36(d)(1)(vi)-(vii)]
- An indication of participation in the Acid Rain Program [98.36(d)(1)(viii)]
- Each type of fuel combusted in the configuration during the reporting year (Table C-2 fuels only) [98.36(d)(1)(iii)]

Use the text boxes, drop-down menu and, radio buttons to enter the required information.

When finished, click NEXT.

Once you have entered the required unit information for all units at your facility, you will have finished entering the required unit information for your facility.

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See Also

Screen Errors
 Using e-GGRT to Prepare Your Subpart D Report
 Subpart D Unit Emissions Information
 Subpart D Fuel Information
 Subpart D Fuel Emissions Information
 Subpart Validation Report

Subpart D Unit Emissions Information

The text below describes how to enter subpart D Electricity Generation emissions information for each unit at your facility. The process to edit an existing unit is essentially similar.

Adding or Updating Unit Emissions Information

Click image to expand

The screenshot shows the EPA e-GGRT interface for 'Test SokhaShop2 (2010)'. The main heading is 'Subpart D: Electricity Generation'. A yellow warning box states: 'EPA has finalized a rule that defers the deadline for reporting certain data elements used as inputs to emission equations for direct entities until March 31, 2015. See 75 FR 53557 (published August 25, 2011). In accordance with the rule, e-GGRT is not currently collecting the subset of reports to emission equations.' Below this is a 'SOURCE SUMMARY' table with one row: 'Unit/Stack/Pipe ID' (empty), 'Status' (empty), and 'Delete' (empty). A '+ Add a Unit, Stack, or Pipe' button is visible.

Starting on the Subpart D Overview page, find the unit for which you would like to enter emissions information in the SOURCE SUMMARY table and click OPEN.

Click image to expand

The screenshot shows the EPA e-GGRT interface for 'Facility ABC (2010)'. The main heading is 'Subpart D: Electricity Generation'. A section titled 'ELECTRICITY GENERATING UNIT, STACK, OR PIPE SUMMARY' provides instructions. Below is the 'UNIT/STACK/PIPE INFORMATION' table with one row: 'Unit/Stack/Pipe ID' (Unit AA), 'Description' (empty), 'Part 75 CO₂ Methodology' (CEMS), and 'Calculation Methodology Period' (01/01/2010 - 12/31/2010). An 'Edit this information for this Unit/Stack/Pipe' link is present. Below is the 'UNIT/STACK/PIPE EMISSIONS INFORMATION' table:

Total CO ₂ emissions (short tons)	Total CO ₂ emissions (metric tons)	Total Biogenic CO ₂ emissions (metric tons)	Status	
22,046.0	22,000.0	1,900.0	Complete	OPEN

Below this is the 'FUEL SPECIFIC CH₄ AND N₂O EMISSIONS INFORMATION' table with one row: 'Fuel' (empty), 'Status' (empty), and 'Delete' (empty). A '+ Add a Fuel' button is visible.

To edit the configuration information for this unit or group, click the "Edit this Unit or Group Information link above the UNIT/STACK/PIPE EMISSIONS INFORMATION table.

Click image to expand

DR Enterprises - TEST
Subpart D: Electricity Generation (2012)
 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 §75.54.
 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 characters maximum)
 Unit Description (Optional)

CO₂ METHODOLOGY INFORMATION
 Part 75 Methodology used*
 Calculation Methodology*
 Calculation Methodology*
 Enter the date for which this calculation methodology was first used to comply with Part 75. If this methodology was in use prior to January 1, 2012 select January 1, 2012 as the start date. If the facility switched to this methodology during 2012, enter the date on which the methodology change occurred.
 If no change in calculation methodology occurred during 2012, select December 31, 2012 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

Use the text boxes, drop-down menu, and radio buttons to update the entered information.

When finished, click SAVE.

Click image to expand

Facility ABC (2010)
Subpart D: Electricity Generation
 Subpart D Overview • [Unit AA](#) • [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 CH₄ and N₂O 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 CH₄ and N₂O emissions were calculated according to 40 CFR 98.33(c)(4).
 For additional information about Subpart D reporting, please use the e-GGRT Help link(s) provided.

UNIT/STACK/PIPE INFORMATION
 Unit/Stack/Pipe ID
 Description
 Part 75 CO₂ Methodology
 Calculation Methodology Period
[Edit the Information for this Unit/Stack/Pipe](#)

UNIT/STACK/PIPE EMISSIONS INFORMATION

Total CO ₂ emissions (short tons)	Total CO ₂ emissions (metric tons)	Total Biogenic CO ₂ emissions (metric tons)	Status ¹
22,046.0	22,000.0	1,900.0	Complete OPEN

FUEL-SPECIFIC CH₄ AND N₂O EMISSIONS INFORMATION

Fuel	Status ¹	Default
No fuels present		

[ADD a Fuel](#)

[Subpart D Overview](#)

¹ 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.)

To enter emissions information for this configuration, find the UNIT/STACK/PIPE EMISSIONS INFORMATION table and click OPEN.

The unit emissions data entry screen will vary slightly depending on the Part 75 methodology selected for each unit.

Click image to expand

For each unit, subpart D requires the facility to provide the following aggregated fuel emissions data:

- The total annual CO₂ emissions at the monitored location in short tons (as reported in part 75) [98.36(d)(1)(ii)]
- The total annual CO₂ emissions at the monitored location in metric tons (conversion from the short ton value reported in part 75) [98.36(d)(1)(ii)]
- The total annual biogenic CO₂ emissions. This includes both CO₂ emissions from the combustion of biomass fuels and the biogenic portion of CO₂ emissions from fuels with a mixed biogenic and fossil component [98.36(d)(1)(ix)]

For each unit for which the facility selects "**CEMS**" as the Part 75 methodology used to determine CO₂ mass emissions, subpart D requires the facility to provide the following additional information [98.3(c)(8)]:

- The total number of operating hours during the year that CO₂ concentration was missing
- The total number of operating hours during the year that stack gas flow rate was missing
- The total number of operating hours during the year that moisture content was missing (only if a continuous moisture monitor was in use)

For each unit for which the facility selects "**Appendix G, Equation G-1**" as the Part 75 methodology used to determine CO₂ mass emissions, subpart D requires the facility to provide the following additional information [98.3(c)(8)]:

- The total number of operating hours during the year that fuel carbon content was missing

For each unit for which the facility selects "**Appendix G, Equation G-4**" as the Part 75 methodology used to determine CO₂ mass emissions, subpart D requires the facility to provide the following additional information [98.3(c)(8)]:

- The total number of operating hours during the year that fuel flow rate was missing
- The total number of operating hours during the year that high heating value was missing

For each unit for which the facility selects "**LME calculation methods in §75.19(c)(4)(iii)**" as the Part 75 methodology used to determine CO₂ mass emissions, no additional information is required.

Use the text boxes to enter the required information.

When finished, click SAVE.

Once you have entered the required unit emissions information for all units and groups at your facility, you will have finished entering the required unit emissions information for your facility.

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See Also

[Screen Errors](#)
[Using e-GGRT to Prepare Your Subpart D Report](#)
[Subpart D Unit Information](#)

Subpart D Fuel Information

The text below describes how to enter subpart D Electricity Generation fuel information for each unit at your facility. The process to edit fuel information for an existing unit is essentially similar.

Adding or Updating Fuel Information for Each Unit

Click image to expand

The screenshot shows the EPA e-GGRT interface for 'Test SekhaShep2 (2010)'. The main heading is 'Subpart D: Electricity Generation'. Below this is a 'Subpart D Overview' section with an 'OVERVIEW OF SUBPART D REPORTING REQUIREMENTS' and a 'SOURCE SUMMARY' table. The table is currently empty, showing 'No units present'. A yellow warning box states: 'EPA has finalized a rule that defers the deadline for reporting certain data elements used as inputs to emission equations for direct entities until March 31, 2015. See 76 FR 63677 published August 25, 2011. In accordance with the rule, e-GGRT is not currently collecting this subset of inputs to emission equations.' A red warning icon indicates 'Subpart D: View Validation'.

Starting on the Subpart D Overview page, find the configuration type for which you would like to enter emissions information in the UNIT-LEVEL SUMMARY table and click OPEN.

Click image to expand

The screenshot shows the EPA e-GGRT interface for 'Facility ABC (2010)'. The main heading is 'Subpart D: Electricity Generation'. Below this is an 'ELECTRICITY GENERATING UNIT, STACK, OR PIPE SUMMARY' section. The 'UNIT/STACK/PIPE INFORMATION' table shows 'Unit AA' with a description 'Part 75 CO₂ Methodology CEMS' and a calculation period of '01/01/2010 - 12/31/2010'. The 'UNIT/STACK/PIPE EMISSIONS INFORMATION' table shows 'Total CO₂ emissions (short tons)' as 22,046.0, 'Total CO₂ emissions (metric tons)' as 22,000.0, and 'Total Biogenic CO₂ emissions (metric tons)' as 1,900.0. The status is 'Complete' with an 'OPEN' button. Below this is a 'FUEL-SPECIFIC CH₄ AND N₂O EMISSIONS INFORMATION' table, which is currently empty, showing 'No fuels present'. A blue 'ADD a Fuel' link is visible below the table.

To add a fuel type for this configuration, click the "ADD a Fuel" link below the FUEL EMISSIONS INFORMATION table.

Click image to expand

The screenshot shows the EPA e-GGRT interface for 'Electric Generation Company 1 (2010)'. The main heading is 'Subpart D: Electricity Generation'. Under the 'ADD A FUEL' section, there is a detailed instruction: 'Use this page to select a fuel combusted in this unit, stack, or pipe. Facilities are only required to identify the fuels in which CO₂ and NO_x 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.' Below this, there are several expandable sections:

- COAL AND COKE** (with a HIDE button): Includes radio buttons for Mixed (Electric Power sector), Mixed (Industrial sector), Mixed (Industrial coking), Mixed (Commercial sector), Coke, Lignite, Subbituminous, Bituminous, and Anthracite.
- NATURAL GAS** (with a HIDE button): Includes a radio button for Natural Gas (Weighted U.S. Average).
- OTHER FUELS AND BLENDS** (with a HIDE button): Includes a radio button for Other-liquid - Other (liquid) and a link to 'ADD an Other Fuel or Blend'.
- PETROLEUM PRODUCTS** (with a HIDE button): Includes radio buttons for Ethylene, Isobutane, Isobutylene, Butane, Butylene, Naptha (<401 deg F), Natural Gasoline, Other Oil (>401 deg F), Pentanes Plus, Ethane, Proylene, Liquefied petroleum gases (LPG), Kerosene, Used Oil, Residual Fuel Oil No. 6, Residual Fuel Oil No. 5, Distillate Fuel Oil No. 4, Distillate Fuel Oil No. 2, Distillate Fuel Oil No. 1, Petrochemical Feedstocks, Ethanol (100%), Propane, Crude Oil, Asphalt and Road Oil, Kerosene-Type Jet Fuel, Aviation Gasoline, Motor Gasoline, Lubricants, Heavy Gas Oils, Unfinished Oils, Special Naptha, and Petroleum Coke.
- OTHER FUELS - SOLID** (with a SHOW button)
- OTHER FUELS - GASEOUS** (with a SHOW button)
- BIOMASS FUELS - SOLID** (with a SHOW button)
- BIOMASS FUELS - GASEOUS** (with a SHOW button)
- BIOMASS FUELS - LIQUID** (with a SHOW button)

At the bottom of the form, there are 'CANCEL' and 'SAVE' buttons. The footer contains 'Paperwork Reduction Act Burden Statement | Contact Us' and 'e-GGRT R/2010 R 44 | SPD-AddFuel'.

For each unit, subpart D requires the facility to report each type of fuel combusted in the configuration during the reporting year (for Table C-2 fuels only) [98.36(d)(1)(iii)].

Use the radio buttons to select a fuel type for this unit.

When finished, click SAVE.

Once you have entered the required fuel information for all units at your facility, you will have finished entering the required fuel information for your facility.

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- [Subpart D Unit Information](#)
- [Subpart D Unit Emissions Information](#)
- [Subpart D Fuel Emissions Information](#)
- [Subpart Validation Report](#)

Subpart D Fuel Emissions Information

The text below describes how to enter subpart D Electricity Generation fuel emissions information for each unit at your facility. The process to edit fuel emissions information for an existing unit is essentially similar.

Adding or Updating Fuel Emissions Information for Each Unit

Click image to expand

Test SekhaShop2 (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 CO₂ 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.

SOURCE SUMMARY

Unit/Stack/Pipe ID	Status ¹	Delete
No units present!		

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

¹ 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).

[Paperwork Reduction Act Burden Statement](#) | [Contact Us](#) | e-GGRT RV2010.R.01 | SPD-Overview

Starting on the Subpart D Overview page, find the configuration type for which you would like to enter emissions information in the UNIT-LEVEL SUMMARY table and click GO.

Click image to expand

Facility ABC (2010)
Subpart D: Electricity Generation
 Subpart D Overview • Unit AA • [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 CH₄ and N₂O 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 CH₄ and N₂O emissions were calculated according to 40 CFR 99.33(c)(4).

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

UNIT/STACK/PIPE INFORMATION

Unit/Stack/Pipe ID	Unit AA
Description	
Part 75 CO ₂ 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 ₂ emissions (short tons)	Total CO ₂ emissions (metric tons)	Total Biogenic CO ₂ emissions (metric tons)	Status ¹
22,046.0	22,000.0	1,900.0	Complete GO

FUEL-SPECIFIC CH₄ AND N₂O EMISSIONS INFORMATION

Fuel	Status ¹	Delete
No fuels present!		

[ADD a Fuel](#)
[Subpart D Overview](#)

¹ 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).

[Paperwork Reduction Act Burden Statement](#) | [Contact Us](#) | e-GGRT RV2010.R.01 | SPD-ConfigOverview

To enter emissions data by fuel type, find the fuel type for which you would like to enter fuel emissions data in the FUEL EMISSIONS INFORMATION table and click GO.

Click image to expand

Subpart D requires the entry of the total heat input for each fuel type listed in Table C-2 combusted in each unit (except as otherwise provided in 98.33(c)(4)(ii)(B)) in units of mmBtu. Enter this value in the text box provided in the EQUATION C-10 SUMMARY AND RESULTS section. [98.36(d)(1)(iv)]

e-GGRT will calculate CH₄ and N₂O emissions from the total heat input entered using Equation C-10 and display the results under ANNUAL CH₄ EMISSIONS and ANNUAL N₂O EMISSIONS, respectively. [98.36(d)(1)(iii)]

If you calculated CH₄ and N₂O emissions for a blended fuel according to 98.33(c)(6)(ii), you can override the automatically calculated emissions values by selecting the "Enter my own result (value will be rounded)" radio buttons under ANNUAL CH₄ EMISSIONS and ANNUAL N₂O EMISSIONS. Enter the CH₄ and N₂O values you calculated in the "Report this value" fields.

Click image to expand

When finished, click SAVE.

Once you have entered the required fuel emissions information for all units at your facility, you will have finished entering the required fuel emissions information for your facility.

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[Subpart Validation Report](#)

Subpart D - Inputs Whose Reporting Deadline Was Deferred Until 2013

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

Citation	Data Element
98.36(d)(1)(iv)	For stationary combustion units that are subject to subpart D: The total heat input from each fuel listed in Table C-2 of subpart C combusted during the year (except as otherwise provided in 98.33(c)(4)(ii)(B)), expressed in mmBtu
98.36(d)(2)(ii)(G)	For subpart D units that use the alternative methods specified in §98.33(a)(5)(i) and (ii) to monitor and report heat input data year-round according to appendix D to Part 75 or §75.19: Report annual heat input from each type of fuel listed in Table C-2 of subpart C combusted during the reporting year, expressed in mmBtu
98.36(d)(2)(iii)(G)	For subpart D units with CEMS that use the alternative methods specified in §98.33(a)(5)(iii) to monitor and report heat input data year-round according Part 75: Report annual heat input from each type of fuel listed in Table C-2 of subpart C combusted during the reporting year, expressed in mmBtu.
98.36(e)(2)(iv)(G)	The value of the molar volume constant (MVC) at standard conditions used in Eq. C-5
98.36(e)(2)(viii)(A)	The amount of sorbent used in acid gas control devices during the reporting year.
98.36(e)(2)(viii)(B)	The molecular weight of the sorbent.
98.36(e)(2)(viii)(C)	The ratio ("R") in Equation C-11. This is the ratio of moles of CO ₂ released per mole of the acid gas species removed (a default factor of 1 is used where the sorbent is CaCaO ₃ and the acid gas is SO ₂)
98.36(e)(2)(x)(A)	When ASTM methods D7459-08 (incorporated by reference, see 98.7) and D6866-08 (incorporated by reference, see 98.7) are used in accordance with 98.34(e) to determine the biogenic portion of the annual CO ₂ emissions from a unit that co-fires biogenic fuels (or partly-biogenic fuels, including tires if you are electing to report biogenic CO ₂ emissions from tire combustion) and non-biogenic fuels: Report the results of quarterly sample analysis
98.36(e)(2)(xi)	When ASTM methods D7459-08 (incorporated by reference, see 98.7) and D6866-08 (incorporated by reference, see 98.7) are used in accordance with 98.34(e) to determine the biogenic portion of the annual CO ₂ emissions from a unit that co-fires biogenic fuels (or partly-biogenic fuels, including tires if you are electing to report biogenic CO ₂ emissions from tire combustion) and non-biogenic fuels: Report the results of quarterly sample analysis

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

This section contains screenshots and descriptions for how the new data element will be collected in e-GGRT.



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

- Equation C-10 (note that subpart D references Eq. C-10 from subpart C)

Copies of these spreadsheets can be downloaded at the [Calculation Spreadsheet Archive](#).

98.36(d)(1)(iv):

For each fuel type listed in Table C-2 combusted in each unit or stack, e-GGRT will require the facility to enter the total heat input (except as otherwise provided in 98.33(c)(4)(ii)(B)) in units of mmBtu. This reporting element is only required for fuels listed in Table C-2.

98.36(d)(2)(ii)(G) and 98.36(d)(2)(iii)(G):

For each fuel type listed in Table C-2 combusted during the year in each configuration of type #6 ("Part 75 Alternate" Methodology), e-GGRT will require the facility to enter the annual heat input in units of mmBtu. This reporting element is only required for fuels listed in Table C-2.

In e-GGRT, a new data entry field has been added for Annual Heat Input; plus related fields for Equation C-10. The calculated result field is read-only. The CO₂e values at the bottom of the page are read-only. To override the calculated result and report an alternate value, select the "Enter my own result" radio button and a new "Report this value" field will appear. Enter the alternate value you wish to report in the "Report this value" field. The blue calculator panel shows the rounded result calculated by the system (or as entered by the user in an 'override' case).

Click image to expand

Bora's Test Facility
Subpart C: General Stationary Fuel Combustion (2012)
 Output C Overview » Alternative Part 75 Reporters » Fuel-Specific Emissions

FUEL-SPECIFIC CH₄ AND N₂O EMISSIONS
 Use this page to enter the annual CH₄ and N₂O 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.

CONFIGURATION

Unit or Group Name/ID	Alternative Part 75 Reporters 1
Configuration Type	Alternative Part 75 Reporters
Part 75 Methodology	Appendix D and G calculation method—§ 98.33(a)(5)(i)
Part 75 Heat Input Method	LME—40 CFR 75.19
Fuel (Fuel Type)	Mixed (Industrial coking) (Coal and Coke)

EQUATION C-10 SUMMARY AND RESULTS

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

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

Annual heat input: 125000 (mmBtu)

ANNUAL CH₄ EMISSIONS

Annual CH₄ emissions from combustion of the specified fuel: 13.75 (metric tons)

Report which CH₄ result?
 Use the calculated result rounded
 Enter my own result (value will be rounded)

ANNUAL N₂O EMISSIONS

Annual N₂O emissions from combustion of the specified fuel: (metric tons)

Report which N₂O result?
 Use the calculated result rounded
 Enter my own result (value will be rounded)

Report this value: 7.32 (metric tons)

CO₂ EQUIVALENT EMISSIONS

CO ₂ equivalent value for Annual CH ₄ emissions	288.8 (metric tons)
CO ₂ equivalent value for Annual N ₂ O emissions	2289.2 (metric tons)

Summary:
 Annual CO₂e for CH₄ (metric tons): 288.8
 Annual CO₂e for N₂O (metric tons): 2289.2

98.36(e)(2)(iv)(G):

For each gaseous fuel at each configuration where the facility uses a “Tier 3” methodology, e-GGRT will require the facility to report the value of the molar volume constant (MVC) used in Equation C-5 in units of scf per kg mole. Selections will be limited to 836.6 or 849.5.

To make a selection, use the provided radio buttons.

Click image to expand

Blora's Test Facility
Subpart C: General Stationary Fuel Combustion (2012)
 Subpart C Overview » Common Pipe » Fuel specific Emissions

FUEL-SPECIFIC EMISSIONS
 Use this page to enter the annual greenhouse gas emissions information for this fuel. The user is required to enter CO₂, CH₄, N₂O, sampling frequency and missing data information (as applicable) for each fuel type. For additional information about the data collected on this page, please use the e-GGRT Help link(s) provided.

Annual CO₂ (metric tons): 2500.0
 Annual CH₄ (metric tons): 580.00
 Annual N₂O (metric tons): 100.000

CONFIGURATION-FUEL-PERIOD

Unit or Group Name/ID	CP-Selection 4
Configuration Type	Common Pipe
Fuel (Fuel Type)	Propane Gas (Other fuels - Gaseous)
Reporting Period	01/01/2012 - 12/31/2012

EQUATION C-5 SUMMARY AND RESULT

$$CO_2 = \frac{44}{12} \times Fuel \times CC \times \frac{MW}{MVC} \times 0.001$$

Annual CO₂ emissions from combustion of the specified fuel (include both biogenic and non-biogenic emissions): 2500 (metric tons)
 Use Equation C-5/C-6 spreadsheet to calculate

EQUATION C-8 SUMMARY AND RESULTS

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

Annual CH₄ emissions from combustion of the specified fuel: 580 (metric tons)
 Use Equation C-5/C-8 spreadsheet to calculate

Annual N₂O emissions from combustion of the specified fuel: 100 (metric tons)
 Use Equation C-5/C-8 spreadsheet to calculate

CO₂ EQUIVALENT EMISSIONS

CO ₂ equivalent value for Annual CH ₄ emissions	12180.0 (metric tons)
CO ₂ equivalent value for Annual N ₂ O emissions	31000.0 (metric tons)

CARBON CONTENT SUBSTITUTE DATA INFORMATION

Total number of valid carbon content determinations	2600
Total number of carbon content substitute data values	20.36
Frequency of carbon content determinations	Weekly
Total number of operating hours in the reporting year for which missing data substitution was used for fuel usage	30

MOLECULAR WEIGHT INFORMATION

Total number of valid molecular weight determinations	12
Total number of molecular weight substitute data values	0
Frequency of molecular weight determinations	Weekly

MOLAR VOLUME CONSTANT

Molar Volume Constant (MVC) used: 836.6 (scf per kg mole) 849.5 (scf per kg mole)

CANCEL SAVE

98.36(e)(2)(viii)(A), 98.36(e)(2)(viii)(B), and 98.36(e)(2)(viii)(C):

For configuration types #1 and #3, e-GGRT will require the facility to identify if CO₂ emissions are generated from operations using sorbent injection which are not monitored using CEMS. This is a "Yes" or "No" answer. If "Yes", e-GGRT will require the facility to report:

- The total amount of sorbent used during the reporting year in short tons;
- The molecular weight of the sorbent;
- The ratio "R" in Equation C-11.

For configuration types #1 and #3 in which CO₂ emissions are generated from sorbent injection, e-GGRT will calculate the annual CO₂ emissions according to Equation C-11 and round the result according to e-GGRT rounding rules. e-GGRT will store the unrounded value and the rounded value (in metric tons) in the database.

The reporter will either click "Yes" or "No" on the radio button buttons to indicate if CO₂ emissions were generated from operations using sorbent that are not monitored by CEMS. If "No", nothing further is needed. If "Yes", the reporter must enter three new Equation C11 inputs into the data entry fields. The "Annual CO₂ emissions from sorbent" field is read-only. To override the calculated result and report an alternate value, select the "Enter my own result" radio button.

Click image to expand

CONFIGURATION

Unit or Group Name/ID GP-Selection 3

Configuration Type Aggregation of Units

EQUATION C-11 SUMMARY AND RESULTS

$$\text{CO}_2 = 0.91 \times S \times R \times \frac{\text{MW}_{\text{CO}_2}}{\text{MW}_S}$$

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

SORBENT EMISSIONS

Is CO₂ emission generated from operations using sorbent injection which are not monitored using CEMS? Yes No

Total amount of sorbent used during the reporting year 23 056 (short tons)

Molecular weight of the sorbent 12

The ratio (R) _____

Annual CO₂ emissions from sorbent _____ (metric tons)

Report which CO₂ result? Use the calculated result rounded Enter my own result (value will be rounded)

CO₂ FOR ALL FUELS

Total annual CO₂ mass emissions from fossil fuels 4500 (metric tons)

Total annual biogenic CO₂ mass emissions 23 (metric tons)

98.36(e)(2)(x)(A):

For configuration types #1, #2, #3, and #5 (regardless of Tier or CO₂ methodology selected), if municipal solid waste (MSW) is combusted and ASTM methods D7495-08 and D6866-08 are used to determine the biogenic portion of the annual CO₂ emissions from MSW combustion as described in 98.34(d), e-GGRT will require the facility to provide:

- The sample analysis results for each quarter as a decimal fraction;
- The annual biogenic CO₂ mass emissions from MSW combustion in metric tons/yr (This relates to MRR Reference 98.36(e)(2)(x)(B)).

To display properly, MSW must be selected as a fuel type. There is a check box at the bottom of the page to indicate whether the reporter used ASTM methods D7495-08 and D6866-08. If the box is checked, four additional data entry fields will appear along with a field for the annual biogenic CO₂ mass emissions from MSW combustion. In those fields, enter the sample results for each quarter during the reporting year and the MSW combustion emissions data.

[Click image to expand](#)

The screenshot shows the EPA e-GGRT web application interface. The top navigation bar includes 'HOME', 'FACILITY REGISTRATION', 'FACILITY MANAGEMENT', and 'DATA REPORTING'. The main content area is titled 'Bora's Test Facility' and 'Subpart C: General Stationary Fuel Combustion (2012)'. It displays configuration details for 'Municipal Solid Waste (Other Fuels - Solid)' and '01/01/2012 - 12/31/2012'. The 'EQUATION C-21 SUMMARY AND RESULT' section shows a calculated CO₂ value of 2900 metric tons. The 'EQUATION C-9 SUMMARY AND RESULTS' section shows calculated values for CH₄ (100 metric tons) and N₂O (23 metric tons). The 'CO₂ EQUIVALENT EMISSIONS' section shows a total of 3100 metric tons. The 'BIOGENIC CO₂ VERIFICATION DATA' section includes a checked box for using ASTM methods D7495-08 and D6866-08, and four input fields for quarterly sample analysis results (decimal fractions). The 'BIOGENIC CO₂ EMISSIONS DATA' section shows an annual biogenic CO₂ mass emission of 23 metric tons/yr. The interface includes 'CANCEL' and 'SAVE' buttons at the bottom.

98.36(e)(2)(xi):

For configuration types #1, #2, #3, #4, and #5 (regardless of Tier or CO₂ methodology selected), if ASTM methods D7495-08 and D6866-08 are

used in accordance with 98.34(e) to determine the biogenic portion of the annual CO₂ emissions from a unit that co-fires biogenic fuels (or partly-biogenic fuels, including tires if you are electing to report biogenic CO₂ emissions from tire combustion) and non-biogenic fuels, e-GGRT will require the facility to provide the sample analysis results for each quarter as a decimal fraction.

There is a check box to indicate whether the reporter used ASTM methods D7495-08 and D6866-08. If the box is checked, four additional data entry fields will appear. In those fields, enter the sample results for each quarter during the reporting year.

Click image to expand

MOLECULAR WEIGHT INFORMATION	
Total number of valid molecular weight determinations	1200
Total number of molecular weight substitute data values	120
Frequency of molecular weight determinations	Hourly

MOLAR VOLUME CONSTANT	
Molar Volume Constant (MVC) used	<input type="radio"/> 836.6 (scf per kg mole)
	<input checked="" type="radio"/> 849.5 (scf per kg mole)

BIOGENIC CO ₂ VERIFICATION DATA	
ASTM methods D7495-08 and D6866-08 were used in accordance with 98.34(e) to determine the biogenic portion of the annual CO ₂ emissions from a unit that co-fires biogenic fuels	<input checked="" type="checkbox"/>
Sample Analysis Results for first quarter	(decimal fraction)
Sample Analysis Results for second quarter	(decimal fraction)
Sample Analysis Results for third quarter	(decimal fraction)
Sample Analysis Results for fourth quarter	(decimal fraction)

CANCEL SAVE