

SUCCESS!

Your facility's annual GHG report has been successfully submitted to EPA and certified. The facility's representatives and agents will receive an email confirmation.

Annual Report Submission

Facility Name: TEXAS TECH UNIVERSITY

Address: 2903 4th St, Rm 122, Lubbock TX 79409

Reporting Year: 2015

Submitted Date: Wed Mar 30 11:40:08 EDT 2016

Certification Date: Wed Mar 30 11:49:42 EDT 2016

Submitted By: QUINTELA, ERIC

Confirmation Number: 126734-118830

Certification Statement:

The designated representative or alternate designated representative must sign (i.e., agree to) this certification statement. If you are an agent and you click on "SUBMIT", you are not agreeing to the certification statement, but are submitting the certification statement on behalf of the designated representative or alternate designated representative who is agreeing to the certification statement. An agent is only authorized to make the electronic submission on behalf of the designated representative, not to sign (i.e., agree to) the certification statement.

Facility Name: TEXAS TECH UNIVERSITY

Facility Identifier: 526394

Facility Reporting Year: 2015

Facility Location:

Address: 2903 4th St, Rm 122

City: Lubbock

State: TX

Postal Code: 79409

Facility Site Details:

CO2 equivalent emissions from facility subparts C-II, SS, and TT (metric tons): 66681

CO2 equivalent emissions from supplier subparts LL-QQ (metric tons): 0

Biogenic CO2 emissions from facility subparts C-II, SS, and TT (metric tons): 0

Cogeneration Unit Emissions Indicator: N

GHG Report Start Date: 2015-01-01

GHG Report End Date: 2015-12-31

Description of Changes to Calculation Methodology:

Part 75 Biogenic Emissions Indication:

Plant Code Indicator: N

Primary NAICS Code: 611310

Second Primary NAICS Code:

Parent Company Details:

Parent Company Name: TEXAS TECH UNIVERSITY

Address: 2903 4th St, Rm 122, Lubbock, TX 79409

Percent Ownership Interest: 100

Subpart C: General Stationary Fuel Combustion

Gas Information Details

Gas Name	Other Gas Name	Gas Quantity	Own Result?
Biogenic Carbon dioxide		0 (Metric Tons)	
Methane		1.26 (Metric Tons)	
Nitrous Oxide		0.126 (Metric Tons)	
Carbon Dioxide		66612 (Metric Tons)	

Unit Details:

Unit Name : CP-NAT GAS

Unit Type : OCS (Other combustion source)

Unit Description :

Other Unit Name :

Common Pipe Details:

Use Ivt Indicator: Y

Maximum Rated Heat Input Capacity: 300

Emission Details:

Annual Biogenic CO2 Emissions: 0 (metric tons)

Annual Fossil fuel based CO2 Emissions: 65256.9 (metric tons)

Tier Fuel Details:

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

Tier Name : Tier 2 (Equation C-2a)

Tier Methodology Start Date : 2015-01-01

Tier Methodology End Date : 2015-12-31

Frequency of HHV determinations : Monthly

Tier 2 Monthly HHV Details :

January	February	March	April	May	June	July	August	September	October	November	December
N	N	N	N	N	N	N	N	N	N	N	N

Fuel Emission Details :

Total CO2 emissions	Total CH4 emissions	Total N2O emissions	Total CH4 emissions CO2e	Total N2O emissions CO2e
66612.0 (Metric Tons)	1.26 (Metric Tons)	0.126 (Metric Tons)	31.4 (Metric Tons)	37.4 (Metric Tons)

Subpart C - General Stationary Fuel Combustion - Tier 2 Calculation Methodology Using Equations C-2a, C-2b, and C-9a
OPTIONAL SPREADSHEET FOR FACILITY RECORDKEEPING PURPOSES

Version e-GGRT RY2013.R.01
 Today's date 3/23/2016

Use one spreadsheet for each fuel. Make additional copies as needed.

This spreadsheet is protected and contains locked cells to ensure that you do not inadvertently alter any of the included formulas and/or calculations. To remove this protection and alter this spreadsheet, right-click the "worksheet" tab near the bottom of the screen and select "Unprotect Sheet." When prompted for the password, type "GHG" 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-2a:

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

Equation C-2b:

$$(HHV)_{annual} = \frac{\sum_{i=1}^n (HHV)_i * (Fuel)_i}{\sum_{i=1}^n (Fuel)_i}$$

Equation C-9a:

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

Facility Name	Texas Tech University
Reporter Name	Eric Quintela
Unit or Group Name, ID	
Configuration Type	
Fuel/ Fuel Type	Natural Gas
Reporting Period	01/2015-12/2015
Comments	
Unit Type	General Stationary Fuel Combustion

Input for Weighted Annual Average HHV (only if required or elected)

Subpart C - General Stationary Fuel Combustion - Tier 2 Calculation Methodology Using Equations C-2a, C-2b, and C-9a
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Month	[Fuel] = Mass or volume of the fuel combusted, for the month, from company records (express mass in short tons for solid fuel, volume in standard cubic feet for gaseous fuel, and volume in gallons for liquid fuel)	[HHV] = Measured high heat value of the fuel, for the month, which may be the arithmetic average of multiple determinations (mmBtu/ mass or mmBtu/ volume)
January	119,014,000	0.00102
February	102,137,000	0.00103
March	9,692,000	0.00104
April	7,631,600	0.00104
May	85,506,000	0.00103
June	99,123,000	0.00103
July	106,817,000	0.00104
August	98,903,000	0.00106
September	94,939,000	0.00106
October	90,142,000	0.00106
November	91,866,000	0.00106
December	106,282,000	0.00104

Weighted Annual Average HHV from Equation C-2b

[HHV _{annual}] = Weighted annual average high heat value of the fuel (mmBtu per mass or volume)	0.0010420
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Use this value as input for Equations C-2a and C-9a, if appropriate

Fuel Input Data

[Fuel] = Mass or volume of the fuel combusted during the year, from company records as defined in §88.6 (express mass in short tons for solid fuel, volume in standard cubic feet for gaseous fuel, and volume in gallons for liquid fuel)	1,167,967,000
[HHV] = Annual average high heat value of the fuel (mmBtu/ mass or mmBtu/ volume). The average HHV shall be calculated according to the requirements of paragraph 98.33(a)(2)(ii)	0.0010530
[1 x 10 ⁻³] = Conversion Factor from kg to metric tons (constant)	0.001

Use the weighted annual average HHV calculated above or annual average HHV consistent with Section 98.33(a)(2)(ii).

Annual CO₂ Mass Emissions For the Specific Fuel Type (metric tons) from Equation C-2a

Subpart C - General Stationary Fuel Combustion - Tier 2 Calculation Methodology Using Equations C-2a, C-2b, and C-9a
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[EF] = Fuel-Specific Default CO ₂ Emission Factor, from Table C-1 (kg CO ₂ /mmBtu)	55.06
[CO ₂] = Annual CO ₂ mass emissions for a specific fuel type (metric tons)	65256.8624581

Enter this value in e-GGRT

Annual CH₄ Mass Emissions For the Specific Fuel Type (metric tons) from Equation C-9a

[EF] = Fuel-Specific Default CH ₄ Emission Factor, from Table C-2 (kg CH ₄ /mmBtu)	0.001
[CH ₄] = Annual CH ₄ emissions from combustion of the specified fuel (metric tons)	1.2298693

Enter this value in e-GGRT

Note: If you are reporting CH₄ emissions from a pulp mill lime kiln located at a kraft or soda facility under subpart AA, you are required to use the emission factors in Table AA-2 per 98.273(c)(2).

Annual N₂O Mass Emissions For the Specific Fuel Type (metric tons) from Equation C-9a

[EF] = Fuel-Specific Default N ₂ O Emission Factor, from Table C-2 (kg N ₂ O/mmBtu)	0.0001
[N ₂ O] = Annual N ₂ O emissions from the combustion of a particular type of fuel (metric tons)	0.1229869

Enter this value in e-GGRT

Note: If you are reporting N₂O emissions from a pulp mill lime kiln located at a kraft or soda facility under subpart AA, you are required to use the emission factors in Table AA-2 per 98.273(c)(2).

INFORMATION ONLY: Annual CH₄ Mass Emissions For the Specific Fuel Type Converted to Carbon Dioxide Equivalent (metric tons CO₂e)

[GWP _{CH₄}] = Global Warming Potential for CH ₄ ,	25
[CH ₄] = Annual CH ₄ emissions from the combustion of a particular type of fuel (metric tons CO ₂ e)	30.74673126

Note: 25 is the GWP effective 1/1/14. The new GWP will affect reports for the 2013 reporting year (submitted to EPA by March 2014) with the exception of reporters who are newly required to report to the GHGRP due to changes to the GWP. Prior to this date, the GWP to use is 21.

INFORMATION ONLY: Annual N₂O Mass Emissions For the Specific Fuel Type Converted to Carbon Dioxide Equivalent (metric tons CO₂e)

Subpart C - General Stationary Fuel Combustion - Tier 2 Calculation Methodology Using Equations C-2a, C-2b, and C-9a
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<p>[GWP]_{N₂O}] = Global Warming Potential for N₂O</p>	<p>298</p>
<p>[N₂O] = Annual N₂O emissions from combustion of the specified fuel (metric tons CO₂e)</p>	<p>36,650,10365</p>

Note: 298 is the GWP effective 1/1/14. The new GWP will affect reports for the 2013 reporting year (submitted to EPA by March 2014) with the exception of reporters who are newly required to report to the GHGRP due to changes to the GWP. Prior to this date, the GWP to use is 310.