

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: UNIVERSITY OF NOTRE DAME

Facility Identifier: 526433

Facility Reporting Year: 2016

Facility Location:

Address: 100 FACILITIES BUILDING

City: NOTRE DAME

State: IN

Postal Code: 46556

Facility Site Details:

CO2 equivalent emissions from facility subparts C-II, SS, and TT (metric tons): 146230.1

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: Y

GHG Report Start Date: 2016-01-01

GHG Report End Date: 2016-12-31

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: UNIVERSITY OF NOTRE DAME

Address: 100 Facilities Bldg, Notre Dame, IN 46556

Percent Ownership Interest: 100

Subpart C: General Stationary Fuel Combustion

Gas Information Details

Gas Name	Other Gas Name	Other Gas GHG Group	Gas Quantity	Own Result?
Biogenic Carbon dioxide			0 (Metric Tons)	
Methane			5.86 (Metric Tons)	
Nitrous Oxide			0.759 (Metric Tons)	
Carbon Dioxide			145857.4 (Metric Tons)	

Unit Details:

Unit Name : B-5

Unit Type : OB (Boiler, other)

Unit Description : No. 2 or natural gas fired boiler equipped with low NOx burners for natural gas and fuel oil, exhausting to Stack 3

Individual Unit Details:

Use Iv Indicator: N

Maximum Rated Heat Input Capacity: 244.5 (mmBtu/hr)

Emission Details:

Annual CO₂ mass emissions from sorbent: 0 (Metric Tons)

Annual Biogenic CO₂ Emissions: 0 (metric tons)

Tier Fuel Details:

Fuel : Natural Gas (Weighted U.S. Average)
Tier Name : Tier 2 (Equation C-2a)
Tier Methodology Start Date : 2016-01-01
Tier Methodology End Date : 2016-12-31
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
18043.4 (Metric Tons)	0.34 (Metric Tons)	0.034 (Metric Tons)	8.5 (Metric Tons)	10.1 (Metric Tons)

Equation C2a/C9a Inputs :

Fuel Quantity : 326313700 (scf/year)
Use Default High Heat Value : false

Equation C2b Inputs :

	Fuel Combusted	High Heat Value
January	23897000 (scf/month)	0.001045 (mmBtu/scf)
February	4914600 (scf/month)	0.001045 (mmBtu/scf)
March	889600 (scf/month)	0.001035 (mmBtu/scf)
April	500 (scf/month)	0.001029 (mmBtu/scf)
May	11639400 (scf/month)	0.001025 (mmBtu/scf)
June	53112700 (scf/month)	0.001025 (mmBtu/scf)
July	33347300 (scf/month)	0.001036 (mmBtu/scf)
August	50563500 (scf/month)	0.001049 (mmBtu/scf)
September	65876600 (scf/month)	0.001049 (mmBtu/scf)
October	504100 (scf/month)	0.001049 (mmBtu/scf)
November	56852900 (scf/month)	0.001048 (mmBtu/scf)
December	24715500 (scf/month)	0.001046 (mmBtu/scf)

Fuel : Distillate Fuel Oil No. 2
Tier Name : Tier 2 (Equation C-2a)
Tier Methodology Start Date : 2016-01-01
Tier Methodology End Date : 2016-12-31
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
436.7 (Metric Tons)	0.02 (Metric Tons)	0.004 (Metric Tons)	0.4 (Metric Tons)	1.1 (Metric Tons)

Equation C2a/C9a Inputs :

Fuel Quantity : 42511 (gallons/year)
Use Default High Heat Value : false

Equation C2b Inputs :

	Fuel Combusted	High Heat Value
January	0 (gallons/month)	0.139561 (mmBtu/gallon)
February	0 (gallons/month)	0.141597 (mmBtu/gallon)
March	0 (gallons/month)	0.139658 (mmBtu/gallon)
April	6981 (gallons/month)	0.139242 (mmBtu/gallon)
May	0 (gallons/month)	0.138100 (mmBtu/gallon)

June	1976 (gallons/month)	0.138382 (mmBtu/gallon)
July	0 (gallons/month)	0.138743 (mmBtu/gallon)
August	13674 (gallons/month)	0.138669 (mmBtu/gallon)
September	0 (gallons/month)	0.138705 (mmBtu/gallon)
October	31 (gallons/month)	0.138290 (mmBtu/gallon)
November	19850 (gallons/month)	0.138977 (mmBtu/gallon)
December	0 (gallons/month)	0.139639 (mmBtu/gallon)

Unit Name : B-1

Unit Type : OB (Boiler, other)

Unit Description : Boiler 1 is a No. 6 fuel oil or natural gas fired boiler, with a single low NOx burner and Economizer, exhausting to Stack 1.

Individual Unit Details:

Use Ivt Indicator: N

Maximum Rated Heat Input Capacity: 137 (mmBtu/hr)

Emission Details:

Annual CO₂ mass emissions from sorbent: 0 (Metric Tons)

Annual Biogenic CO₂ Emissions: 0 (metric tons)

Tier Fuel Details:

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

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

Tier Methodology Start Date : 2016-01-01

Tier Methodology End Date : 2016-12-31

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 CO ₂ emissions	Total CH ₄ emissions	Total N ₂ O emissions	Total CH ₄ emissions CO ₂ e	Total N ₂ O emissions CO ₂ e
8919.0 (Metric Tons)	0.17 (Metric Tons)	0.017 (Metric Tons)	4.2 (Metric Tons)	5 (Metric Tons)

Equation C2a/C9a Inputs :

Fuel Quantity : 162128700 (scf/year)

Use Default High Heat Value : false

Equation C2b Inputs :

	Fuel Combusted	High Heat Value
January	728700 (scf/month)	0.001045 (mmBtu/scf)
February	8215100 (scf/month)	0.001045 (mmBtu/scf)
March	35418500 (scf/month)	0.001035 (mmBtu/scf)
April	32025900 (scf/month)	0.001029 (mmBtu/scf)
May	14294100 (scf/month)	0.001025 (mmBtu/scf)
June	2643000 (scf/month)	0.001025 (mmBtu/scf)
July	29026700 (scf/month)	0.001036 (mmBtu/scf)
August	18737500 (scf/month)	0.001049 (mmBtu/scf)
September	4077200 (scf/month)	0.001049 (mmBtu/scf)
October	1905100 (scf/month)	0.001049 (mmBtu/scf)
November	10643700 (scf/month)	0.001048 (mmBtu/scf)
December	4413200 (scf/month)	0.001046 (mmBtu/scf)

Fuel : Distillate Fuel Oil No. 2

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

Tier Methodology Start Date : 2016-01-01

Tier Methodology End Date : 2016-12-31

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
205.0 (Metric Tons)	0.01 (Metric Tons)	0.002 (Metric Tons)	0.2 (Metric Tons)	0.5 (Metric Tons)

Equation C2a/C9a Inputs :**Fuel Quantity :** 19919 (gallons/year)**Use Default High Heat Value :** false**Equation C2b Inputs :**

	Fuel Combusted	High Heat Value
January	0 (gallons/month)	0.139832 (mmBtu/gallon)
February	180 (gallons/month)	0.141924 (mmBtu/gallon)
March	0 (gallons/month)	0.138719 (mmBtu/gallon)
April	0 (gallons/month)	0.139526 (mmBtu/gallon)
May	0 (gallons/month)	0.137893 (mmBtu/gallon)
June	6334 (gallons/month)	0.138506 (mmBtu/gallon)
July	0 (gallons/month)	0.138693 (mmBtu/gallon)
August	0 (gallons/month)	0.138474 (mmBtu/gallon)
September	817 (gallons/month)	0.138875 (mmBtu/gallon)
October	21 (gallons/month)	0.138519 (mmBtu/gallon)
November	9800 (gallons/month)	0.139500 (mmBtu/gallon)
December	2768 (gallons/month)	0.139496 (mmBtu/gallon)

Unit Name : B-2**Unit Type :** S (Stoker Boiler)**Unit Description :** Coal or natural gas fired boiler equipped with a low NOx burner (on NG) and one pulse jet fabric filter for particulate control when combusting coal. Exhausts to Stack 1.**Individual Unit Details:****Use Iv Indicator:** N**Maximum Rated Heat Input Capacity:** 96 (mmBtu/hr)**Emission Details:****Annual CO₂ mass emissions from sorbent:** 0 (Metric Tons)**Annual Biogenic CO₂ Emissions:** 0 (metric tons)**Tier Fuel Details:****Fuel :** Bituminous**Tier Name :** Tier 2 (Equation C-2a)**Tier Methodology Start Date :** 2016-01-01**Tier Methodology End Date :** 2016-12-31**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
16642.6 (Metric Tons)	1.96 (Metric Tons)	0.285 (Metric Tons)	49.1 (Metric Tons)	85.1 (Metric Tons)

Equation C2a/C9a Inputs :**Fuel Quantity :** 6985 (short tons/year)**Use Default High Heat Value :** false

Use Default CH4 Emission Factor : true

Equation C2b Inputs :

	Fuel Combusted	High Heat Value
January	0 (short tons/month)	24.318 (mmBtu/short ton)
February	1016 (short tons/month)	25.138 (mmBtu/short ton)
March	1850 (short tons/month)	25.83 (mmBtu/short ton)
April	1412 (short tons/month)	25.13 (mmBtu/short ton)
May	1041 (short tons/month)	26.048 (mmBtu/short ton)
June	190 (short tons/month)	25.702 (mmBtu/short ton)
July	516 (short tons/month)	24.78 (mmBtu/short ton)
August	186 (short tons/month)	24.9 (mmBtu/short ton)
September	661 (short tons/month)	26.084 (mmBtu/short ton)
October	0 (short tons/month)	26.084 (mmBtu/short ton)
November	113 (short tons/month)	26.084 (mmBtu/short ton)
December	0 (short tons/month)	26.084 (mmBtu/short ton)

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

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

Tier Methodology Start Date : 2016-01-01

Tier Methodology End Date : 2016-12-31

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
200.0 (Metric Tons)	0.00 (Metric Tons)	0.000 (Metric Tons)	0.1 (Metric Tons)	0.1 (Metric Tons)

Equation C2a/C9a Inputs :

Fuel Quantity : 3610500 (scf/year)

Use Default High Heat Value : false

Equation C2b Inputs :

	Fuel Combusted	High Heat Value
January	23200 (scf/month)	0.001045 (mmBtu/scf)
February	220800 (scf/month)	0.001045 (mmBtu/scf)
March	460300 (scf/month)	0.001035 (mmBtu/scf)
April	118100 (scf/month)	0.001029 (mmBtu/scf)
May	124000 (scf/month)	0.001025 (mmBtu/scf)
June	143000 (scf/month)	0.001025 (mmBtu/scf)
July	109400 (scf/month)	0.001036 (mmBtu/scf)
August	1977300 (scf/month)	0.001049 (mmBtu/scf)
September	377500 (scf/month)	0.001049 (mmBtu/scf)
October	56900 (scf/month)	0.001049 (mmBtu/scf)
November	0 (scf/month)	0.001048 (mmBtu/scf)
December	0 (scf/month)	0.001046 (mmBtu/scf)

Unit Name : B-6

Unit Type : OB (Boiler, other)

Unit Description : Natural gas fired boiler equipped with a low NOx burner and flue gas recirculation using No.2 fuel oil as a back up fuel, exhausting to Stack 9.

Individual Unit Details:

Use Iv Indicator: N

Maximum Rated Heat Input Capacity: 249 (mmBtu/hr)

Emission Details:

Annual CO₂ mass emissions from sorbent: 0 (Metric Tons)

Annual Biogenic CO2 Emissions: 0 (metric tons)

Tier Fuel Details:

Fuel : Natural Gas (Weighted U.S. Average)
Tier Name : Tier 2 (Equation C-2a)
Tier Methodology Start Date : 2016-01-01
Tier Methodology End Date : 2016-12-31
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
34810.6 (Metric Tons)	0.66 (Metric Tons)	0.066 (Metric Tons)	16.4 (Metric Tons)	19.6 (Metric Tons)

Equation C2a/C9a Inputs :

Fuel Quantity : 629269000 (scf/year)
Use Default High Heat Value : false

Equation C2b Inputs :

	Fuel Combusted	High Heat Value
January	51455500 (scf/month)	0.001045 (mmBtu/scf)
February	42738500 (scf/month)	0.001045 (mmBtu/scf)
March	9800 (scf/month)	0.001035 (mmBtu/scf)
April	15904000 (scf/month)	0.001029 (mmBtu/scf)
May	25649700 (scf/month)	0.001025 (mmBtu/scf)
June	56391300 (scf/month)	0.001025 (mmBtu/scf)
July	85067000 (scf/month)	0.001036 (mmBtu/scf)
August	60488200 (scf/month)	0.001049 (mmBtu/scf)
September	76589300 (scf/month)	0.001049 (mmBtu/scf)
October	83353700 (scf/month)	0.001049 (mmBtu/scf)
November	61544300 (scf/month)	0.001048 (mmBtu/scf)
December	70077700 (scf/month)	0.001046 (mmBtu/scf)

Fuel : Distillate Fuel Oil No. 2
Tier Name : Tier 2 (Equation C-2a)
Tier Methodology Start Date : 2016-01-01
Tier Methodology End Date : 2016-12-31
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
205.8 (Metric Tons)	0.01 (Metric Tons)	0.002 (Metric Tons)	0.2 (Metric Tons)	0.5 (Metric Tons)

Equation C2a/C9a Inputs :

Fuel Quantity : 20023 (gallons/year)
Use Default High Heat Value : false

Equation C2b Inputs :

	Fuel Combusted	High Heat Value
January	0 (gallons/month)	0 (mmBtu/gallon)
February	0 (gallons/month)	0 (mmBtu/gallon)
March	0 (gallons/month)	0 (mmBtu/gallon)

April	0 (gallons/month)	0 (mmBtu/gallon)
May	0 (gallons/month)	0 (mmBtu/gallon)
June	0 (gallons/month)	0 (mmBtu/gallon)
July	0 (gallons/month)	0 (mmBtu/gallon)
August	0 (gallons/month)	0 (mmBtu/gallon)
September	0 (gallons/month)	0 (mmBtu/gallon)
October	0 (gallons/month)	0 (mmBtu/gallon)
November	20023 (gallons/month)	0.138977 (mmBtu/gallon)
December	0 (gallons/month)	0 (mmBtu/gallon)

Unit Name : B-3

Unit Type : S (Stoker Boiler)

Unit Description : Coal or natural gas fired boiler equipped with a low NOx burner (on NG) and one pulse jet fabric filter for particulate control when combusting coal. Exhausts to Stack 1.

Individual Unit Details:

Use Ivt Indicator: N

Maximum Rated Heat Input Capacity: 96 (mmBtu/hr)

Emission Details:

Annual CO₂ mass emissions from sorbent: 0 (Metric Tons)

Annual Biogenic CO₂ Emissions: 0 (metric tons)

Tier Fuel Details:

Fuel : Bituminous

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

Tier Methodology Start Date : 2016-01-01

Tier Methodology End Date : 2016-12-31

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 CO ₂ emissions	Total CH ₄ emissions	Total N ₂ O emissions	Total CH ₄ emissions CO ₂ e	Total N ₂ O emissions CO ₂ e
8054.6 (Metric Tons)	0.95 (Metric Tons)	0.138 (Metric Tons)	23.7 (Metric Tons)	41.2 (Metric Tons)

Equation C2a/C9a Inputs :

Fuel Quantity : 3446 (short tons/year)

Use Default High Heat Value : false

Use Default CH₄ Emission Factor : true

Equation C2b Inputs :

	Fuel Combusted	High Heat Value
January	1354 (short tons/month)	24.318 (mmBtu/short ton)
February	461 (short tons/month)	25.138 (mmBtu/short ton)
March	82 (short tons/month)	25.83 (mmBtu/short ton)
April	700 (short tons/month)	25.13 (mmBtu/short ton)
May	596 (short tons/month)	26.048 (mmBtu/short ton)
June	0 (short tons/month)	25.702 (mmBtu/short ton)
July	0 (short tons/month)	24.78 (mmBtu/short ton)
August	0 (short tons/month)	24.9 (mmBtu/short ton)
September	186 (short tons/month)	26.084 (mmBtu/short ton)
October	0 (short tons/month)	26.084 (mmBtu/short ton)
November	67 (short tons/month)	26.084 (mmBtu/short ton)
December	0 (short tons/month)	26.084 (mmBtu/short ton)

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

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

Tier Methodology Start Date : 2016-01-01

Tier Methodology End Date : 2016-12-31**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
666.7 (Metric Tons)	0.01 (Metric Tons)	0.001 (Metric Tons)	0.3 (Metric Tons)	0.4 (Metric Tons)

Equation C2a/C9a Inputs :**Fuel Quantity** : 12006400 (scf/year)**Use Default High Heat Value** : false**Equation C2b Inputs :**

	Fuel Combusted	High Heat Value
January	709600 (scf/month)	0.001045 (mmBtu/scf)
February	207800 (scf/month)	0.001045 (mmBtu/scf)
March	107400 (scf/month)	0.001035 (mmBtu/scf)
April	236700 (scf/month)	0.001029 (mmBtu/scf)
May	119500 (scf/month)	0.001025 (mmBtu/scf)
June	702400 (scf/month)	0.001025 (mmBtu/scf)
July	0 (scf/month)	0.001036 (mmBtu/scf)
August	0 (scf/month)	0.001049 (mmBtu/scf)
September	9761400 (scf/month)	0.001049 (mmBtu/scf)
October	0 (scf/month)	0.001049 (mmBtu/scf)
November	161600 (scf/month)	0.001048 (mmBtu/scf)
December	0 (scf/month)	0.001046 (mmBtu/scf)

Unit Name : B-4**Unit Type** : PCWW (Pulverized coal, wall-fired, wet bottom)**Unit Description** : Coal, No.2 fuel oil, or natural gas fired boiler equipped with one pulse jet fabric filter baghouse for particulate control when combusting coal. Exhausts to Stack 2.**Individual Unit Details:****Use IvT Indicator**: N**Maximum Rated Heat Input Capacity**: 234 (mmBtu/hr)**Emission Details:****Annual CO₂ mass emissions from sorbent**: 0 (Metric Tons)**Annual Biogenic CO₂ Emissions**: 0 (metric tons)**Tier Fuel Details:****Fuel** : Bituminous**Tier Name** : Tier 2 (Equation C-2a)**Tier Methodology Start Date** : 2016-01-01**Tier Methodology End Date** : 2016-12-31**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
6455.8 (Metric Tons)	0.76 (Metric Tons)	0.111 (Metric Tons)	19 (Metric Tons)	33 (Metric Tons)

Equation C2a/C9a Inputs :

Fuel Quantity : 2780 (short tons/year)
Use Default High Heat Value : false
Use Default CH4 Emission Factor : true
Equation C2b Inputs :

	Fuel Combusted	High Heat Value
January	0 (short tons/month)	24.958 (mmBtu/short ton)
February	692 (short tons/month)	24.958 (mmBtu/short ton)
March	0 (short tons/month)	24.958 (mmBtu/short ton)
April	0 (short tons/month)	24.958 (mmBtu/short ton)
May	0 (short tons/month)	24.958 (mmBtu/short ton)
June	1279 (short tons/month)	24.988 (mmBtu/short ton)
July	0 (short tons/month)	24.988 (mmBtu/short ton)
August	532 (short tons/month)	24.988 (mmBtu/short ton)
September	0 (short tons/month)	24.988 (mmBtu/short ton)
October	0 (short tons/month)	24.134 (mmBtu/short ton)
November	278 (short tons/month)	24.134 (mmBtu/short ton)
December	0 (short tons/month)	24.134 (mmBtu/short ton)

Fuel : Natural Gas (Weighted U.S. Average)
Tier Name : Tier 2 (Equation C-2a)
Tier Methodology Start Date : 2016-01-01
Tier Methodology End Date : 2016-12-31
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
47214.7 (Metric Tons)	0.89 (Metric Tons)	0.089 (Metric Tons)	22.2 (Metric Tons)	26.5 (Metric Tons)

Equation C2a/C9a Inputs :

Fuel Quantity : 855480000 (scf/year)
Use Default High Heat Value : false
Equation C2b Inputs :

	Fuel Combusted	High Heat Value
January	91715800 (scf/month)	0.001045 (mmBtu/scf)
February	67203700 (scf/month)	0.001045 (mmBtu/scf)
March	81356000 (scf/month)	0.001035 (mmBtu/scf)
April	71662800 (scf/month)	0.001029 (mmBtu/scf)
May	86937700 (scf/month)	0.001025 (mmBtu/scf)
June	47163000 (scf/month)	0.001025 (mmBtu/scf)
July	63770000 (scf/month)	0.001036 (mmBtu/scf)
August	90768000 (scf/month)	0.001049 (mmBtu/scf)
September	43524000 (scf/month)	0.001049 (mmBtu/scf)
October	99872000 (scf/month)	0.001049 (mmBtu/scf)
November	13707500 (scf/month)	0.001048 (mmBtu/scf)
December	97799500 (scf/month)	0.001046 (mmBtu/scf)

Fuel : Distillate Fuel Oil No. 1
Tier Name : Tier 2 (Equation C-2a)
Tier Methodology Start Date : 2016-01-01
Tier Methodology End Date : 2016-12-31
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	N
---	---	---	---	---	---	---	---	---	---	---	---	---

Fuel Emission Details :

Total CO2 emissions	Total CH4 emissions	Total N2O emissions	Total CH4 emissions CO2e	Total N2O emissions CO2e
142.8 (Metric Tons)	0.01 (Metric Tons)	0.001 (Metric Tons)	0.1 (Metric Tons)	0.3 (Metric Tons)

Equation C2a/C9a Inputs :**Fuel Quantity :** 14050 (gallons/year)**Use Default High Heat Value :** false**Equation C2b Inputs :**

	Fuel Combusted	High Heat Value
January	1 (gallons/month)	0.139561 (mmBtu/gallon)
February	60 (gallons/month)	0.141597 (mmBtu/gallon)
March	95 (gallons/month)	0.139658 (mmBtu/gallon)
April	364 (gallons/month)	0.139242 (mmBtu/gallon)
May	0 (gallons/month)	0.138100 (mmBtu/gallon)
June	44 (gallons/month)	0.138382 (mmBtu/gallon)
July	477 (gallons/month)	0.138743 (mmBtu/gallon)
August	11634 (gallons/month)	0.138669 (mmBtu/gallon)
September	0 (gallons/month)	0.138705 (mmBtu/gallon)
October	492 (gallons/month)	0.138290 (mmBtu/gallon)
November	883 (gallons/month)	0.138977 (mmBtu/gallon)
December	0 (gallons/month)	0.139639 (mmBtu/gallon)

Unit Name : G-8**Unit Type :** RICE (Reciprocating internal combustion engine)**Unit Description :** Diesel fired generator exhausting to Stack 6**Individual Unit Details:****Use Ivt Indicator:** N**Maximum Rated Heat Input Capacity:** 13.7 (mmBtu/hr)**Emission Details:****Annual CO₂ mass emissions from sorbent:** 0 (Metric Tons)**Annual Biogenic CO₂ Emissions:** 0 (metric tons)**Tier Fuel Details:****Fuel :** Distillate Fuel Oil No. 2**Tier Name :** Tier 2 (Equation C-2a)**Tier Methodology Start Date :** 2016-01-01**Tier Methodology End Date :** 2016-12-31**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
42.6 (Metric Tons)	0.00 (Metric Tons)	0.000 (Metric Tons)	0 (Metric Tons)	0.1 (Metric Tons)

Equation C2a/C9a Inputs :**Fuel Quantity :** 4143 (gallons/year)**Use Default High Heat Value :** false**Equation C2b Inputs :**

	Fuel Combusted	High Heat Value
January	300 (gallons/month)	0.139765 (mmBtu/gallon)
February	190 (gallons/month)	0.138846 (mmBtu/gallon)

March	400 (gallons/month)	0.139241 (mmBtu/gallon)
April	579 (gallons/month)	0.139291 (mmBtu/gallon)
May	72 (gallons/month)	0.138521 (mmBtu/gallon)
June	96 (gallons/month)	0.138864 (mmBtu/gallon)
July	389 (gallons/month)	0.139126 (mmBtu/gallon)
August	321 (gallons/month)	0.138728 (mmBtu/gallon)
September	1382 (gallons/month)	0.138296 (mmBtu/gallon)
October	0 (gallons/month)	0.138685 (mmBtu/gallon)
November	141 (gallons/month)	0.139190 (mmBtu/gallon)
December	273 (gallons/month)	0.139308 (mmBtu/gallon)

Unit Name : G-9

Unit Type : RICE (Reciprocating internal combustion engine)

Unit Description : Diesel fired generator exhausting to Stack 7

Individual Unit Details:

Use Ivt Indicator: N

Maximum Rated Heat Input Capacity: 13.7 (mmBtu/hr)

Emission Details:

Annual CO₂ mass emissions from sorbent: 0 (Metric Tons)

Annual Biogenic CO₂ Emissions: 0 (metric tons)

Tier Fuel Details:

Fuel : Distillate Fuel Oil No. 2

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

Tier Methodology Start Date : 2016-01-01

Tier Methodology End Date : 2016-12-31

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 CO ₂ emissions	Total CH ₄ emissions	Total N ₂ O emissions	Total CH ₄ emissions CO ₂ e	Total N ₂ O emissions CO ₂ e
73.4 (Metric Tons)	0.00 (Metric Tons)	0.001 (Metric Tons)	0.1 (Metric Tons)	0.2 (Metric Tons)

Equation C2a/C9a Inputs :

Fuel Quantity : 7152 (gallons/year)

Use Default High Heat Value : false

Equation C2b Inputs :

	Fuel Combusted	High Heat Value
January	267 (gallons/month)	0.139765 (mmBtu/gallon)
February	143 (gallons/month)	0.138846 (mmBtu/gallon)
March	164 (gallons/month)	0.139241 (mmBtu/gallon)
April	1066 (gallons/month)	0.139291 (mmBtu/gallon)
May	70 (gallons/month)	0.138521 (mmBtu/gallon)
June	106 (gallons/month)	0.138864 (mmBtu/gallon)
July	898 (gallons/month)	0.139126 (mmBtu/gallon)
August	741 (gallons/month)	0.138728 (mmBtu/gallon)
September	2943 (gallons/month)	0.138296 (mmBtu/gallon)
October	388 (gallons/month)	0.138685 (mmBtu/gallon)
November	148 (gallons/month)	0.139190 (mmBtu/gallon)
December	218 (gallons/month)	0.139308 (mmBtu/gallon)

Unit Name : G-3

Unit Type : RICE (Reciprocating internal combustion engine)

Unit Description : Diesel fired generator exhausting to Stack 4

Individual Unit Details:**Use Ivt Indicator:** N**Maximum Rated Heat Input Capacity:** 13.7 (mmBtu/hr)**Emission Details:****Annual CO₂ mass emissions from sorbent:** 0 (Metric Tons)**Annual Biogenic CO₂ Emissions:** 0 (metric tons)**Tier Fuel Details:****Fuel :** Distillate Fuel Oil No. 2**Tier Name :** Tier 2 (Equation C-2a)**Tier Methodology Start Date :** 2016-01-01**Tier Methodology End Date :** 2016-12-31**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 CO ₂ emissions	Total CH ₄ emissions	Total N ₂ O emissions	Total CH ₄ emissions CO ₂ e	Total N ₂ O emissions CO ₂ e
2.4 (Metric Tons)	0.00 (Metric Tons)	0.000 (Metric Tons)	0 (Metric Tons)	0 (Metric Tons)

Equation C2a/C9a Inputs :**Fuel Quantity :** 230 (gallons/year)**Use Default High Heat Value :** false**Equation C2b Inputs :**

	Fuel Combusted	High Heat Value
January	40 (gallons/month)	0.139056 (mmBtu/gallon)
February	0 (gallons/month)	0.138721 (mmBtu/gallon)
March	40 (gallons/month)	0.138341 (mmBtu/gallon)
April	0 (gallons/month)	0.139362 (mmBtu/gallon)
May	50 (gallons/month)	0.138188 (mmBtu/gallon)
June	0 (gallons/month)	0.138324 (mmBtu/gallon)
July	0 (gallons/month)	0.138855 (mmBtu/gallon)
August	50 (gallons/month)	0.138783 (mmBtu/gallon)
September	0 (gallons/month)	0.138682 (mmBtu/gallon)
October	40 (gallons/month)	0.138719 (mmBtu/gallon)
November	10 (gallons/month)	0.139416 (mmBtu/gallon)
December	0 (gallons/month)	0.140371 (mmBtu/gallon)

Unit Name : G-4**Unit Type :** RICE (Reciprocating internal combustion engine)**Unit Description :** Diesel fired generator exhausting to Stack 5**Individual Unit Details:****Use Ivt Indicator:** N**Maximum Rated Heat Input Capacity:** 13.7 (mmBtu/hr)**Emission Details:****Annual CO₂ mass emissions from sorbent:** 0 (Metric Tons)**Annual Biogenic CO₂ Emissions:** 0 (metric tons)**Tier Fuel Details:****Fuel :** Distillate Fuel Oil No. 2**Tier Name :** Tier 2 (Equation C-2a)**Tier Methodology Start Date :** 2016-01-01**Tier Methodology End Date :** 2016-12-31**Frequency of HHV determinations :** Monthly**Tier 2 Monthly HHV Details :**

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

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
3.6 (Metric Tons)	0.00 (Metric Tons)	0.000 (Metric Tons)	0 (Metric Tons)	0 (Metric Tons)

Equation C2a/C9a Inputs :**Fuel Quantity :** 350 (gallons/year)**Use Default High Heat Value :** false**Equation C2b Inputs :**

	Fuel Combusted	High Heat Value
January	80 (gallons/month)	0.139056 (mmBtu/gallon)
February	40 (gallons/month)	0.138721 (mmBtu/gallon)
March	0 (gallons/month)	0.138341 (mmBtu/gallon)
April	50 (gallons/month)	0.139362 (mmBtu/gallon)
May	0 (gallons/month)	0.138188 (mmBtu/gallon)
June	40 (gallons/month)	0.138324 (mmBtu/gallon)
July	40 (gallons/month)	0.138855 (mmBtu/gallon)
August	0 (gallons/month)	0.138783 (mmBtu/gallon)
September	50 (gallons/month)	0.138682 (mmBtu/gallon)
October	10 (gallons/month)	0.138719 (mmBtu/gallon)
November	0 (gallons/month)	0.139416 (mmBtu/gallon)
December	40 (gallons/month)	0.140371 (mmBtu/gallon)

Unit Name : GP-Campus NG Combustion**Unit Type :** OCS (Other combustion source)**Unit Description :** Balance of NG combustion on campus. Metering of gas consumption by NG supplier - Northern Indiana Public Service Company (NIPSCO)**Other Unit Name :****Small Unit Aggregation Details:****Use Iv Indicator:** N**Highest Maximum Rated Heat Input Capacity:** 2**Emission Details:****Annual CO₂ mass emissions from sorbent:** 0 (Metric Tons)**Annual Biogenic CO₂ Emissions:** 0 (metric tons)**Annual Fossil fuel based CO₂ Emissions:** 3670 (metric tons)**Tier Fuel Details:****Fuel :** Natural Gas (Weighted U.S. Average)**Tier Name :** Tier 1 (Equation C-1a, natural gas billing in therms)**Tier Methodology Start Date :** 2016-01-01**Tier Methodology End Date :** 2016-12-31**Fuel Emission Details :**

Total CO2 emissions	Total CH4 emissions	Total N2O emissions	Total CH4 emissions CO2e	Total N2O emissions CO2e
3669.7 (Metric Tons)	0.07 (Metric Tons)	0.007 (Metric Tons)	1.7 (Metric Tons)	2.1 (Metric Tons)

Equation C1a/C8a Inputs :**Natural Gas Usage :** 691605 (therms/year)**Unit Name :** G-10**Unit Type :** RICE (Reciprocating internal combustion engine)**Unit Description :** Diesel fired generator exhausting to Stack 8**Individual Unit Details:****Use Iv Indicator:** N**Maximum Rated Heat Input Capacity:** 13.7 (mmBtu/hr)

Emission Details:**Annual CO₂ mass emissions from sorbent:** 0 (Metric Tons)**Annual Biogenic CO₂ Emissions:** 0 (metric tons)**Tier Fuel Details:****Fuel :** Distillate Fuel Oil No. 2**Tier Name :** Tier 2 (Equation C-2a)**Tier Methodology Start Date :** 2016-01-01**Tier Methodology End Date :** 2016-12-31**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 CO ₂ emissions	Total CH ₄ emissions	Total N ₂ O emissions	Total CH ₄ emissions CO ₂ e	Total N ₂ O emissions CO ₂ e
68.0 (Metric Tons)	0.00 (Metric Tons)	0.001 (Metric Tons)	0.1 (Metric Tons)	0.2 (Metric Tons)

Equation C2a/C9a Inputs :**Fuel Quantity :** 6617 (gallons/year)**Use Default High Heat Value :** false**Equation C2b Inputs :**

	Fuel Combusted	High Heat Value
January	273 (gallons/month)	0.139765 (mmBtu/gallon)
February	165 (gallons/month)	0.138846 (mmBtu/gallon)
March	154 (gallons/month)	0.139241 (mmBtu/gallon)
April	1694 (gallons/month)	0.139291 (mmBtu/gallon)
May	49 (gallons/month)	0.138521 (mmBtu/gallon)
June	140 (gallons/month)	0.138864 (mmBtu/gallon)
July	1002 (gallons/month)	0.139126 (mmBtu/gallon)
August	706 (gallons/month)	0.138728 (mmBtu/gallon)
September	1778 (gallons/month)	0.138296 (mmBtu/gallon)
October	402 (gallons/month)	0.138685 (mmBtu/gallon)
November	158 (gallons/month)	0.139190 (mmBtu/gallon)
December	96 (gallons/month)	0.139308 (mmBtu/gallon)