

# memorandum

Environmental Protection Division

To/MS: 2013 Emissions Inventory File Thru/MS: Alison M. Dorries, ENV-DO, K491

From/MS: Steven L. Story, ENV-CP, J978

Phone/Fax: 5-2169 LAUR: 14-21662

Symbol: ENV-DO-14-0068

Date: MAR 2 6 2014

# Subject: 2013 Emissions Inventory Electronic Submittal

Los Alamos National Laboratory (LANL) submitted their 2013 Emissions Inventory Report to New Mexico Environmental Department (NMED) via online reporting tool, AEIR. This report is required by Title 20, Chapter 2, Part 73 of the New Mexico Administrative Code (20.2.73 NMAC), Notice of Intent and Emissions Inventory Requirements. The report was submitted on March 26, 2014, and meets New Mexico Environmental Department's deadline of April 1<sup>st</sup>.

Should you have any questions or comments regarding the information provided in this report, please contact Steve Story at (505) 665-2169 or <a href="mailto:story@lanl.gov">story@lanl.gov</a>.

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The Landing Land

# **ENCLOSURE 1**

2013 Emissions Inventory Report

ENV-DO-14-0068

LAUR-13-22031

Electronic Submittal

Date:	MAR 2 6 2014



# Subject Item List

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# Facility Annual Emissions - Subject Item List

Agency ID: 856

Facility Name: Los Alamos National Laboratory

Organization Name: U.S. Department of Energy National Nuclear Security Administration

Submittal Status: 2013 Submittal (In Process)

#### Subject Item/Equipment

	Туре	ID	Designation	Description	Complete
(	Federal Agency	856	2195FR4	Los Alamos National Laboratory	
<b>(6</b>	Asphalt Drum/Burner	116	TA-60-BDM	Asphalt Plant Dryer - Propane	V
(	Beryllium Work	2	TA-35-213	Be Target Fabrication Facility - Machining TA-35-213	
(	Beryllium Work	3	TA-3-141	Be Test Facility - Machining TA-3-141	V
~	Beryllium Work	6	TA-55-PF4 (a)	Plutonium Facility Beryllium machining, weld cutting / dressing and metallography	V
(	Beryllium Work	41	TA-3-66	Sigma Facility-electroplating/metallography	V
(	Boiler	11	TA-53-365-BHW-	1 Boiler TA-53-365-BHW-1	
("	Boiler	12	TA-53-365-BHW-2	2 Boiler TA-53-365-BHW-2	
-	Boiler	24	TA-3-22-1	Power Plant Boiler (pph, Natural Gas)	V
<	Boiler	25	TA-3-22-2	Power Plant Boiler (pph, Natural Gas)	<b>✓</b>
(	Boiler	26	TA-3-22-3	Power Plant Boiler (pph, Natural Gas)	V
~	Boiler	29	TA-55-6-BHW-1	Sellers Boiler TA-55-6-BHW-1	V
(	Boiler	30	TA-55-6-BHW <b>-</b> 2	Sellers Boiler TA-55-6-BHW-2	V
0	Boiler	53	TA-16-1484-BS-2	Low NOx Boiler TA-16-1484-BS-2	V
~	Boiler	90	B-1	Boiler-CMRR	
~	Boiler	104	B-2	Boiler-CMRR	V
(	Boiler	105	B-3	Boiler-CMRR	V
C	Boiler	106	B-4	Boiler-CMRR	V
-	Boiler	107	B-5	Boiler-CMRR	<b>V</b>
0	Boiler	134	TA-16-1484-BS-1	Low NOx Boiler TA-16-1484-BS-1	V
~	Boiler	137	TA-3-22 <b>-</b> 2	Power Plant Boiler (pph, No. 2 fuel oil)	V
-	Boiler	138	TA-3-22-3	Power Plant Boiler (pph, No. 2 fuel oil)	
(	Boiler	141	TA-3 <b>-</b> 22-1	Power Plant Boiler (pph, No. 2 fuel oil)	V
-	Boiler	144	All Boilers	Natural Gas and No. 2 Fuel Boilers (cap)	V
~	Internal combustion engine	56	TA-33-G-1	Kohler Diesel Generator TA-33-G-1	V
("	Internal combustion engine	119	TA-33-G-2	Kohler Diesel Generator TA-33-G-2 (temp located to TA-39)	Z
(	Internal combustion engine	120	TA-33 <b>-</b> G-3	Kohler Diesel Generator TA-33-G-3 (temp located to TA-39)	Z
~	Internal combustion engine	128	3 Generators	3 Cummins Diesel Powered Generators, CMRR-GEN-1, CMRR-GEN-2, and CMRR-GEN-3	V
~	Internal combustion engine	135	TA-33-G-4	Caterpillar Diesel Generator TA-33-G-4	Ø
-	Internal combustion engine	146	TA-33-G-1P	Cummins Portable Diesel Generator	V
6	Parts Washer	21	TA-55-DG-1	Degreaser - Ultrasonic Cold Batch TA-55-4	
	Research/Testing	7	LANL-FW-CHEM	R & D Activities - Labwide (031)	

Shredder	89	TA-52-11	Data [	Disintegrator/indust	rial Shredder	V
Turbine	112	TA-3-22-CT-	-1 Comb	ustion Turbine		$\mathbf{Z}$
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Wednesday, March 19, 2014

Agency ID: 856

Facility Name: Los Alamos National Laboratory

Organization Name: U.S. Department of Energy National Nuclear Security Administration

Submittal Status: 2013 Submittal (In Process)

Facility ID: 116

**Designation:** TA-60-BDM

Description: Asphalt Plant Dryer - Propane

Type: Asphalt Drum/Burner

**SCC:** Industrial Processes, Mineral

Products, Asphalt Concrete, Drum Mix Plant: Rotary Drum Dryer / Mixer, Natural Gas -

Fired

**GHG Reporting:** Reports GHG to EPA

## Supplemental Parameters

	Amount	Unit of Measure	
Fuel Type:	Propane		
Input Materials Processed:	Asphalt (INPUT)		
Materials Consumed:	13569.0	gal/y	
Fuel Heating Value:	91547.0	BTU/gal	
Percent Sulfur of Fuel:	0.0	percent	
Percent Ash of Fuel:	0.0	percent	

#### Operating Detail

	Value
Operating Time in Hours per Day:	8
Operating Time in Days per Week:	5
Operating Time in Weeks per Year:	26
Operating Time in Hours per Year:	1040
Percent of Operation During Winter:	10
Percent of Operation During Spring:	30
<b>Percent of Operation During Summer:</b>	30
Percent of Operation During Fall:	30

#### Actual Pollutants

Pollutant	Amount	Unit of Measure	Calculation Method
Carbon Monoxide:	0.533	tons/y	EPA emission factors (e.g., AP-42)
Lead:	0.0	tons/y	EPA emission factors (e.g., AP-42)
Nitrogen Dioxide:	0.015	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (10 microns or less):	0.001	tons/y	Manufacturer Specification
Particulate Matter (2.5 microns or less):	0.001	tons/y	Manufacturer Specification
Particulate Matter (total suspended):	0.009	tons/y	Manufacturer Specification
Sulfur Dioxide:	0.001	tons/y	EPA emission factors (e.g., AP-42)
Volatile Organic Compounds (VOC):	0.001	tons/y	EPA emission factors (e.g., AP-42)

Subject Item Comments

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Agency ID: 856

Facility Name: Los Alamos National Laboratory

Organization Name: U.S. Department of Energy National Nuclear Security Administration

Submittal Status: 2013 Submittal (In Process)

Facility ID: 2

Designation: TA-35-213

**Description:** Be Target Fabrication Facility - Machining TA-35-213

Type: Beryllium Work

SCC: Industrial Processes, Fabricated

Metal Products, Machining Operations, Specify Material\*\*

GHG Reporting: Reports GHG to EPA

Supplemental Parameters

Input Materials Processed:

Metal (INPUT)

Operating Detail

	Value
Operating Time in Hours per Day:	5
Operating Time in Days per Week:	7
Operating Time in Weeks per Year:	52
Operating Time in Hours per Year:	1820
Percent of Operation During Winter:	25
Percent of Operation During Spring:	25
<b>Percent of Operation During Summer:</b>	25
Percent of Operation During Fall:	25

### Actual Pollutants

Pollutant	Amount	Unit of Measure	Calculation Method
Beryllium:	0.0	tons/y	Estimate
Particulate Matter (total suspended):	0.0	tons/y	Estimate
Subject Item Comments			

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Agency ID: 856

Facility Name: Los Alamos National Laboratory

Organization Name: U.S. Department of Energy National Nuclear Security Administration

Submittal Status: 2013 Submittal (In Process)

Facility ID: 3

**Designation:** TA-3-141

**Description:** Be Test Facility - Machining TA-3-141

Type: Beryllium Work

SCC: Industrial Processes, Fabricated

Metal Products, Machining Operations, Specify Material\*\*

GHG Reporting: Reports GHG to EPA

Supplemental Parameters

**Input Materials Processed:** 

Metal (INPUT)

Operating Detail

	Value
Operating Time in Hours per Day:	24
Operating Time in Days per Week:	7
Operating Time in Weeks per Year:	52
Operating Time in Hours per Year:	8760
Percent of Operation During Winter:	25
Percent of Operation During Spring:	25
<b>Percent of Operation During Summer:</b>	25
Percent of Operation During Fall:	25

### Actual Pollutants

Pollutant	Amount	Unit of Measure	Calculation Method
Beryllium:	0.0	tons/y	Sample testing
Particulate Matter (total suspended):	0.0	tons/y	Sample testing
Subject Item Comments			

Close Print

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Agency ID: 856

Facility Name: Los Alamos National Laboratory

Organization Name: U.S. Department of Energy National Nuclear Security Administration

Submittal Status: 2013 Submittal (In Process)

Facility ID: 6

**Designation:** TA-55-PF4 (a)

Plutonium Facility Beryllium

Description: machining, weld cutting /

dressing and metallography

Type: Beryllium Work

SCC: Industrial Processes, Fabricated

Metal Products, Machining Operations, Specify Material\*\*

GHG Reporting: Reports GHG to EPA

Supplemental Parameters

**Input Materials Processed:** 

Metal (INPUT)

Operating Detail

	Value
Operating Time in Hours per Day:	5
Operating Time in Days per Week:	7
Operating Time in Weeks per Year:	52
Operating Time in Hours per Year:	1820
Percent of Operation During Winter:	25
Percent of Operation During Spring:	25
<b>Percent of Operation During Summer:</b>	25
Percent of Operation During Fall:	25

Actual Pollutants

Unit **Pollutant** Amount of

Calculation Method Measure

Beryllium:

0.0

tons/y

EPA emission factors (e.g., AP-42)

Subject Item Comments

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Agency ID: 856

Facility Name: Los Alamos National Laboratory

Organization Name: U.S. Department of Energy National Nuclear Security Administration

Submittal Status: 2013 Submittal (In Process)

Facility ID: 41

**Designation: TA-3-66** 

**Description:** Sigma Facility-electroplating/metallography

Type: Beryllium Work

SCC: Industrial Processes, Fabricated

Metal Products, Abrasive

Cleaning of Metal Parts, Polishing

GHG Reporting: Reports GHG to EPA

Supplemental Parameters

**Input Materials Processed:** 

Metal (INPUT)

Operating Detail

	value
Operating Time in Hours per Day:	8
Operating Time in Days per Week:	7
Operating Time in Weeks per Year:	52
Operating Time in Hours per Year:	8760
Percent of Operation During Winter:	25
Percent of Operation During Spring:	25
<b>Percent of Operation During Summer:</b>	25
Percent of Operation During Fall:	25

Actual Pollutants

**Pollutant** 

Amount

Unit of Measure Calculation Method

V-line

Beryllium:

0.0

tons/y

Design calculation

Subject Item Comments

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Wednesday, March 19, 2014

Agency ID: 856

Facility Name: Los Alamos National Laboratory

Organization Name: U.S. Department of Energy National Nuclear Security Administration

Submittal Status: 2013 Submittal (In Process)

Facility ID: 11

**Designation:** TA-53-365-BHW-1 **Description:** Boiler TA-53-365-BHW-1

Type: Boiler

**SCC:** External Combustion Boilers, Electric Generation, Natural Gas,

Boilers < 100 Million Btu/hr

except Tangential

**GHG Reporting:** Reports GHG to EPA

#### Supplemental Parameters

	Amount	Unit of Measure
Fuel Type:	Natural Gas	
Input Materials Processed:	Natural Gas (INPUT)	
Materials Consumed:	11.42	MM SCF/y
Fuel Heating Value:	1021.0	MM BTU/MM SCF
Percent Sulfur of Fuel:	0.001	percent
Percent Ash of Fuel:	0.0	percent
Percent Carbon Content:	65.0	percent

### Operating Detail

	Value
Operating Time in Hours per Day:	15
Operating Time in Days per Week:	7
Operating Time in Weeks per Year:	33
Operating Time in Hours per Year:	3465
Percent of Operation During Winter:	40
Percent of Operation During Spring:	20
<b>Percent of Operation During Summer:</b>	0
Percent of Operation During Fall:	40

Pollutant	Amount	Onit of Measure	Calculation Method
Carbon Monoxide:	0.479	tons/y	EPA emission factors (e.g., AP-42)
Formaldehyde:	0.0	tons/y	EPA emission factors (e.g., AP-42)
Hexane:	0.01	tons/y	EPA emission factors (e.g., AP-42)
Nitrogen Dioxide:	0.571	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (10 microns or less):	0.043	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (2.5 microns or less):	0.043	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (total suspended):	0.043	tons/y	EPA emission factors (e.g., AP-42)
Sulfur Dioxide:	0.003	tons/y	EPA emission factors (e.g., AP-42)
Volatile Organic Compounds (VOC):	0.031	tons/y	EPA emission factors (e.g., AP-42)

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Agency ID: 856

Facility Name: Los Alamos National Laboratory

Organization Name: U.S. Department of Energy National Nuclear Security Administration

**Submittal Status:** 2013 Submittal (In Process)

Facility ID: 12

Designation: TA-53-365-BHW-2

**Description:** Boiler TA-53-365-BHW-2

Type: Boiler

**SCC:** External Combustion Boilers,

Electric Generation, Natural Gas,

Boilers < 100 Million Btu/hr

except Tangential

GHG Reporting: Reports GHG to EPA

#### Supplemental Parameters

	Amount	Unit of Measure
Fuel Type:	Natural Gas	
Input Materials Processed:	Natural Gas (INPUT)	
Materials Consumed:	11.42	MM SCF/y
Fuel Heating Value:	1021.0	MM BTU/MM SCF
Percent Sulfur of Fuel:	0.001	percent
Percent Ash of Fuel:	0.0	percent
Percent Carbon Content:	65.0	percent

### Operating Detail

	Value
Operating Time in Hours per Day:	15
Operating Time in Days per Week:	7
Operating Time in Weeks per Year:	33
Operating Time in Hours per Year:	3465
Percent of Operation During Winter:	40
Percent of Operation During Spring:	20
Percent of Operation During Summer:	0
Percent of Operation During Fall:	40

Pollutant	Amount	Unit of Measure	Calculation Method
Carbon Monoxide:	0.479	tons/y	EPA emission factors (e.g., AP-42)
Formaldehyde:	0.0	tons/y	EPA emission factors (e.g., AP-42)
Hexane:	0.01	tons/y	EPA emission factors (e.g., AP-42)
Nitrogen Dioxide:	0.571	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (10 microns or less):	0.043	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (2.5 microns or less):	0.043	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (total suspended):	0.043	tons/y	EPA emission factors (e.g., AP-42)
Sulfur Dioxide:	0.003	tons/y	EPA emission factors (e.g., AP-42)
Volatile Organic Compounds (VOC):	0.031	tons/y	EPA emission factors (e.g., AP-42)

Wednesday, March 19, 2014

Agency ID: 856

Facility Name: Los Alamos National Laboratory

Organization Name: U.S. Department of Energy National Nuclear Security Administration

Submittal Status: 2013 Submittal (In Process)

Facility ID: 24

**Designation:** TA-3-22-1

**Description:** Power Plant Boiler (pph, Natural Gas)

Type: Boiler

SCC: External Combustion Boilers,

Electric Generation, Natural Gas,

Boilers > 100 Million Btu/hr

except Tangential

**GHG Reporting:** Reports GHG to EPA

#### Supplemental Parameters

	Amount		Unit of Measure
Fuel Type:	Natural Gas		
Input Materials Processed:	Natural Gas (INPUT)		
Materials Consumed:	251.7		MM SCF/y
Fuel Heating Value:	1021.0		MM BTU/MM SCF
Percent Sulfur of Fuel:	0.001		percent
Percent Ash of Fuel:	0.0	8	percent
Percent Carbon Content:	65.0		percent

#### Operating Detail

	Value
Operating Time in Hours per Day:	24
Operating Time in Days per Week:	7
Operating Time in Weeks per Year:	52
Operating Time in Hours per Year:	8760
Percent of Operation During Winter:	30
Percent of Operation During Spring:	20
Percent of Operation During Summer:	20
Percent of Operation During Fall:	30

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Pollutant	Amount	of Measure	Calculation Method
Carbon Monoxide:	5.03	tons/y	EPA emission factors (e.g., AP-42)
Formaldehyde:	0.01	tons/y	EPA emission factors (e.g., AP-42)
Hexane:	0.02	tons/y	EPA emission factors (e.g., AP-42)
Nitrogen Dioxide:	7.3	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (10 microns or less):	0.96	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (2.5 microns or less):	0.96	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (total suspended):	0.96	tons/y	EPA emission factors (e.g., AP-42)
Sulfur Dioxide:	0.08	tons/y	EPA emission factors (e.g., AP-42)

**Toluene; (Methyl benzene):** 0.0 tons/y EPA emission factors (e.g., AP-42) **Volatile Organic Compounds (VOC):** 0.69 tons/y EPA emission factors (e.g., AP-42)

Subject Item Comments

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Agency ID: 856

Facility Name: Los Alamos National Laboratory

Organization Name: U.S. Department of Energy National Nuclear Security Administration

Submittal Status: 2013 Submittal (In Process)

Facility ID: 25

**Designation:** TA-3-22-2

**Description:** Power Plant Boiler (pph, Natural Gas)

Type: Boiler

SCC: External Combustion Boilers,

Electric Generation, Natural Gas,

Boilers > 100 Million Btu/hr

except Tangential

GHG Reporting: Reports GHG to EPA

## Supplemental Parameters

	Amount	Unit of Measure
Fuel Type:	Natural Gas	
Input Materials Processed:	Natural Gas (INPUT)	
Materials Consumed:	76.0	MM SCF/y
Fuel Heating Value:	1021.0	MM BTU/MM SCF
Percent Sulfur of Fuel:	0.001	percent
Percent Ash of Fuel:	0.0	percent
Percent Carbon Content:	65.0	percent

#### Operating Detail

	Value
Operating Time in Hours per Day:	24
Operating Time in Days per Week:	7
Operating Time in Weeks per Year:	52
Operating Time in Hours per Year:	8760
Percent of Operation During Winter:	30
Percent of Operation During Spring:	20
Percent of Operation During Summer:	20
Percent of Operation During Fall:	30

Pollutant	Amount	Onit of Measure	Calculation Method
Carbon Monoxide:	1.52	tons/y	EPA emission factors (e.g., AP-42)
Formaldehyde:	0.003	tons/y	EPA emission factors (e.g., AP-42)
Hexane:	0.07	tons/y	EPA emission factors (e.g., AP-42)
Nitrogen Dioxide:	2.2	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (10 microns or less):	0.29	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (2.5 microns or less):	0.29	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (total suspended):	0.29	tons/y	EPA emission factors (e.g., AP-42)
Sulfur Dioxide:	0.02	tons/y	EPA emission factors (e.g., AP-42)

**Volatile Organic Compounds (VOC):** 0.21 tons/y EPA emission factors (e.g., AP-42)

Subject Item Comments

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Wednesday, March 19, 2014

Agency ID: 856

Facility Name: Los Alamos National Laboratory

Organization Name: U.S. Department of Energy National Nuclear Security Administration

Submittal Status: 2013 Submittal (In Process)

Facility ID: 26

**Designation:** TA-3-22-3

**Description:** Power Plant Boiler (pph, Natural Gas)

Type: Boiler

SCC: External Combustion Boilers,

Electric Generation, Natural Gas,

Boilers > 100 Million Btu/hr

except Tangential

GHG Reporting: Reports GHG to EPA

#### Supplemental Parameters

	Amount	Unit of Measure
Fuel Type:	Natural Gas	
Input Materials Processed:	Natural Gas (INPUT)	
Materials Consumed:	99.2	MM SCF/y
Fuel Heating Value:	1021.0	MM BTU/MM SCF
Percent Sulfur of Fuel:	0.001	percent
Percent Ash of Fuel:	0.0	percent
Percent Carbon Content:	65.0	percent

#### Operating Detail

	Value
Operating Time in Hours per Day:	24
Operating Time in Days per Week:	7
Operating Time in Weeks per Year:	52
Operating Time in Hours per Year:	8760
Percent of Operation During Winter:	30
Percent of Operation During Spring:	20
Percent of Operation During Summer:	20
Percent of Operation During Fall:	30

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Pollutant	Amount	of Measure	Calculation Method
Carbon Monoxide:	1.98	tons/y	EPA emission factors (e.g., AP-42)
Formaldehyde:	0.004	tons/y	EPA emission factors (e.g., AP-42)
Hexane:	0.09	tons/y	EPA emission factors (e.g., AP-42)
Nitrogen Dioxide:	2.88	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (10 microns or less):	0.38	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (2.5 microns or less):	0.38	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (total suspended):	0.38	tons/y	EPA emission factors (e.g., AP-42)
Sulfur Dioxide:	0.03	tons/y	EPA emission factors (e.g., AP-42)

Volatile Organic Compounds (VOC):

0.27

tons/y EPA emission factors (e.g., AP-42)

Subject Item Comments

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Agency ID: 856

Facility Name: Los Alamos National Laboratory

Organization Name: U.S. Department of Energy National Nuclear Security Administration

Submittal Status: 2013 Submittal (In Process)

Facility ID: 29

**Designation:** TA-55-6-BHW-1

**Description:** Sellers Boiler TA-55-6-BHW-1

Type: Boiler

SCC: External Combustion Boilers,

Electric Generation, Natural Gas, Boilers < 100 Million Btu/hr

except Tangential

GHG Reporting: Reports GHG to EPA

#### Supplemental Parameters

a a	Amount	Unit of Measure
Fuel Type:	Natural Gas	
Input Materials Processed:	Natural Gas (INPUT)	
Materials Consumed:	15.038	MM SCF/y
Fuel Heating Value:	1021.0	MM BTU/MM SCF
Percent Sulfur of Fuel:	0.001	percent

#### Operating Detail

	Value
Operating Time in Hours per Day:	15
Operating Time in Days per Week:	7
Operating Time in Weeks per Year:	33
Operating Time in Hours per Year:	3465
Percent of Operation During Winter:	35
Percent of Operation During Spring:	20
<b>Percent of Operation During Summer:</b>	10
Percent of Operation During Fall:	35

#### Actual Pollutants

Pollutant	Amount	Unit of Measure	Calculation Method
Carbon Monoxide:	0.287	tons/y	EPA emission factors (e.g., AP-42)
Hexane:	0.014	tons/y	EPA emission factors (e.g., AP-42)
Nitrogen Dioxide:	1.04	tons/y	Actual stack test
Particulate Matter (10 microns or less):	0.107	tons/y	Manufacturer Specification
Particulate Matter (2.5 microns or less):	0.107	tons/y	Manufacturer Specification
Particulate Matter (total suspended):	0.107	tons/y	Manufacturer Specification
Sulfur Dioxide:	0.005	tons/y	EPA emission factors (e.g., AP-42)
Volatile Organic Compounds (VOC):	0.045	tons/y	Manufacturer Specification
Subject Item Comments			

Subject Item Comments

Wednesday, March 19, 2014

Agency ID: 856

Facility Name: Los Alamos National Laboratory

Organization Name: U.S. Department of Energy National Nuclear Security Administration

Submittal Status: 2013 Submittal (In Process)

Facility ID: 30

**Designation:** TA-55-6-BHW-2

**Description:** Sellers Boiler TA-55-6-BHW-2

Type: Boiler

SCC: External Combustion Boilers,

Electric Generation, Natural Gas,

Boilers < 100 Million Btu/hr except Tangential

GHG Reporting: Reports GHG to EPA . .

## Supplemental Parameters

	Amount	Unit of Measure
Fuel Type:	Natural Gas	
Input Materials Processed:	Natural Gas (INPUT)	
Materials Consumed:	6.168	MM SCF/y
Fuel Heating Value:	1021.0	MM BTU/MM SCF
Percent Sulfur of Fuel:	0.001	percent
Percent Carbon Content:	65.0	percent

#### Operating Detail

	Value	
Operating Time in Hours per Day:	15	
Operating Time in Days per Week:	7	
Operating Time in Weeks per Year:	33	
Operating Time in Hours per Year:	3465	
Percent of Operation During Winter:	40	
Percent of Operation During Spring:	10	
<b>Percent of Operation During Summer:</b>	10	
Percent of Operation During Fall:	40	

#### Actual Pollutants

Pollutant	Amount	Unit of Measure	Calculation Method
Carbon Monoxide:	0.118	tons/y	Manufacturer Specification
Formaldehyde:	0.0	tons/y	EPA emission factors (e.g., AP-42)
Hexane:	0.006	tons/y	EPA emission factors (e.g., AP-42)
Lead:	0.0	tons/y	Manufacturer Specification
Nitrogen Dioxide:	0.426	tons/y	Actual stack test
Particulate Matter (10 microns or less):	0.044	tons/y	Manufacturer Specification
Particulate Matter (2.5 microns or less):	0.044	tons/y	Manufacturer Specification
Particulate Matter (total suspended):	0.044	tons/y	Manufacturer Specification
Sulfur Dioxide:	0.002	tons/y	EPA emission factors (e.g., AP-42)
Volatile Organic Compounds (VOC):	0.018	tons/y	Manufacturer Specification

Wednesday, March 19, 2014

Agency ID: 856

Facility Name: Los Alamos National Laboratory

Organization Name: U.S. Department of Energy National Nuclear Security Administration

Submittal Status: 2013 Submittal (In Process)

Facility ID: 53

**Designation:** TA-16-1484-BS-2

**Description:** Low NOx Boiler TA-16-1484-BS-2

Type: Boiler

**SCC:** External Combustion Boilers, Commercial/Institutional,

Natural Gas, < 10 Million Btu/hr

GHG Reporting: Reports GHG to EPA

### Supplemental Parameters

	Amount	Unit of Measure
Fuel Type:	Natural Gas	
Input Materials Processed:	Natural Gas (INPUT)	
Materials Consumed:	10.19	MM SCF/y
Fuel Heating Value:	1021.0	MM BTU/MM SCF
Percent Ash of Fuel:	0.0	percent

### Operating Detail

	Value
Operating Time in Hours per Day:	24
Operating Time in Days per Week:	7
Operating Time in Weeks per Year:	52
Operating Time in Hours per Year:	8760
Percent of Operation During Winter:	25
Percent of Operation During Spring:	25
<b>Percent of Operation During Summer:</b>	25
Percent of Operation During Fall:	25

#### Actual Pollutants

Pollutant	Amount	Unit of Measure	Calculation Method
Carbon Monoxide:	0.189	tons/y	Design calculation
Lead:	0.0	tons/y	Design calculation
Nitrogen Dioxide:	0.189	tons/y	Design calculation
Particulate Matter (10 microns or less):	0.039	tons/y	Design calculation
Particulate Matter (2.5 microns or less):	0.039	tons/y	Design calculation
Particulate Matter (total suspended):	0.039	tons/y	Design calculation
Sulfur Dioxide:	0.003	tons/y	Design calculation
Volatile Organic Compounds (VOC):	0.028	tons/y	Design calculation
Subject Item Comments			

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Wednesday, March 19, 2014

Agency ID: 856

Facility Name: Los Alamos National Laboratory

Organization Name: U.S. Department of Energy National Nuclear Security Administration

Submittal Status: 2013 Submittal (In Process)

Facility ID: 90 Designation: B-1

**Description:** Boiler-CMRR

Type: Boiler

**SCC:** External Combustion Boilers, Commercial/Institutional, Natural Gas, < 10 Million Btu/hr

GHG Reporting: Reports GHG to EPA

### Supplemental Parameters

	Amount	Unit of Measure
Fuel Type:	Natural Gas	
Input Materials Processed:	Natural Gas (INPUT)	
Materials Consumed:	1.43	MM SCF/y
Fuel Heating Value:	1021.0	MM BTU/MM SCF
Percent Sulfur of Fuel:	0.001	percent
Percent Ash of Fuel:	0.0	percent
Percent Carbon Content:	65.0	percent

### Operating Detail

	Value
Operating Time in Hours per Day:	24
Operating Time in Days per Week:	7
Operating Time in Weeks per Year:	52
Operating Time in Hours per Year:	8760
Percent of Operation During Winter:	25
Percent of Operation During Spring:	25
Percent of Operation During Summer:	25
Percent of Operation During Fall:	25

#### Actual Pollutants

Pollutant	Amount	Unit of Measure	Calculation Method
Carbon Monoxide:	0.027	tons/y	EPA emission factors (e.g., AP-42)
Nitrogen Dioxide:	0.021	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (10 microns or less):	0.004	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (total suspended):	0.004	tons/y	EPA emission factors (e.g., AP-42)
Sulfur Dioxide:	0.0	tons/y	EPA emission factors (e.g., AP-42)
Volatile Organic Compounds (VOC):	0.018	tons/y	EPA emission factors (e.g., AP-42)
Subject Item Comments			

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Wednesday, March 19, 2014

Agency ID: 856

Facility Name: Los Alamos National Laboratory

Organization Name: U.S. Department of Energy National Nuclear Security Administration

**Submittal Status:** 2013 Submittal (In Process)

Facility ID: 104 Designation: B-2

**Description:** Boiler-CMRR

Type: Boiler

**SCC:** External Combustion Boilers, Commercial/Institutional, Natural Gas, < 10 Million Btu/hr

GHG Reporting: Reports GHG to EPA

#### Supplemental Parameters

	Amount	Unit of Measure
Fuel Type:	Natural Gas	
Input Materials Processed:	Natural Gas (INPUT)	
Materials Consumed:	1.43	MM SCF/y
Fuel Heating Value:	1021.0	MM BTU/MM SCF
Percent Sulfur of Fuel:	0.001	percent
Percent Ash of Fuel:	0.0	percent
Percent Carbon Content:	65.0	percent

### Operating Detail

	Value
Operating Time in Hours per Day:	24
Operating Time in Days per Week:	7
Operating Time in Weeks per Year:	52
Operating Time in Hours per Year:	8760
Percent of Operation During Winter:	25
Percent of Operation During Spring:	25
<b>Percent of Operation During Summer:</b>	25
Percent of Operation During Fall:	25

#### Actual Pollutants

Pollutant	Amount	Unit of Measure	Calculation Method
Carbon Monoxide:	0.027	tons/y	EPA emission factors (e.g., AP-42)
Nitrogen Dioxide:	0.021	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (10 microns or less):	0.004	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (total suspended):	0.004	tons/y	EPA emission factors (e.g., AP-42)
Sulfur Dioxide:	0.0	tons/y	EPA emission factors (e.g., AP-42)
Volatile Organic Compounds (VOC):	0.018	tons/y	EPA emission factors (e.g., AP-42)
Subject Item Comments			

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Wednesday, March 19, 2014

Agency ID: 856

Facility Name: Los Alamos National Laboratory

Organization Name: U.S. Department of Energy National Nuclear Security Administration

Submittal Status: 2013 Submittal (In Process)

Facility ID: 105 Designation: B-3

Description: Boiler-CMRR

Type: Boiler

**SCC:** External Combustion Boilers, Commercial/Institutional, Natural Gas, < 10 Million Btu/hr

GHG Reporting: Reports GHG to EPA

### Supplemental Parameters

	Amount	<b>Unit of Measure</b>
Fuel Type:	Natural Gas	
Input Materials Processed:	Natural Gas (INPUT)	
<b>Materials Consumed:</b>	1.43	MM SCF/y
Fuel Heating Value:	1021.0	MM BTU/MM SCF
Percent Sulfur of Fuel:	0.001	percent
Percent Ash of Fuel:	0.0	percent
Percent Carbon Content:	65.0	percent

### Operating Detail

	Value
Operating Time in Hours per Day:	24
Operating Time in Days per Week:	7
Operating Time in Weeks per Year:	52
Operating Time in Hours per Year:	8760
Percent of Operation During Winter:	25
Percent of Operation During Spring:	25
<b>Percent of Operation During Summer:</b>	25
Percent of Operation During Fall:	25

#### Actual Pollutants

Pollutant	Amount	Unit of Measure	Calculation Method
Carbon Monoxide	e: 0.027	tons/y	EPA emission factors (e.g., AP-42)
Nitrogen Dioxide	e: 0.021	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (10 microns or less	): 0.004	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (total suspended	): 0.004	tons/y	EPA emission factors (e.g., AP-42)
Sulfur Dioxide	e: 0.0	tons/y	EPA emission factors (e.g., AP-42)
Volatile Organic Compounds (VOC	<b>):</b> 0.018	tons/y	EPA emission factors (e.g., AP-42)
Subject Item Comments			

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Wednesday, March 19, 2014

Agency ID: 856

Facility Name: Los Alamos National Laboratory

Organization Name: U.S. Department of Energy National Nuclear Security Administration

Submittal Status: 2013 Submittal (In Process)

Facility ID: 106 Designation: B-4

**Description:** Boiler-CMRR

Type: Boiler

**SCC:** External Combustion Boilers, Commercial/Institutional, Natural Gas, < 10 Million Btu/hr

GHG Reporting: Reports GHG to EPA

#### Supplemental Parameters

Amount	Unit of Measure
Natural Gas	
Natural Gas (INPUT)	
0.0	MM SCF/y
0.0	MM BTU/MM SCF
0.0	percent
0.0	percent
0.0	percent
	Natural Gas Natural Gas (INPUT) 0.0 0.0 0.0 0.0 0.0

### Operating Detail

	Value
Operating Time in Hours per Day:	0
Operating Time in Days per Week:	0
Operating Time in Weeks per Year:	0
Operating Time in Hours per Year:	0
Percent of Operation During Winter:	0
Percent of Operation During Spring:	0
<b>Percent of Operation During Summer:</b>	0
Percent of Operation During Fall:	0

### Actual Pollutants

Amount	Unit of Measure	Calculation Method
0.0	tons/y	EPA emission factors (e.g., AP-42)
0.0	tons/y	EPA emission factors (e.g., AP-42)
0.0	tons/y	EPA emission factors (e.g., AP-42)
0.0	tons/y	EPA emission factors (e.g., AP-42)
0.0	tons/y	EPA emission factors (e.g., AP-42)
0.0	tons/y	EPA emission factors (e.g., AP-42)
	0.0 0.0 0.0 0.0 0.0	Amount         of Measure           0.0         tons/y           0.0         tons/y           0.0         tons/y           0.0         tons/y           0.0         tons/y           0.0         tons/y

#### Subject Item Comments

This unit has not been built.

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Wednesday, March 19, 2014

Agency ID: 856

Facility Name: Los Alamos National Laboratory

Organization Name: U.S. Department of Energy National Nuclear Security Administration

Submittal Status: 2013 Submittal (In Process)

Facility ID: 107 Designation: B-5

**Description:** Boiler-CMRR

Type: Boiler

**SCC:** External Combustion Boilers, Commercial/Institutional, Natural Gas, < 10 Million Btu/hr

GHG Reporting: Reports GHG to EPA

#### Supplemental Parameters

	Amount	Unit of Measure
Fuel Type:	Natural Gas	
Input Materials Processed:	Natural Gas (INPUT)	
Materials Consumed:	0.0	MM SCF/y
Fuel Heating Value:	0.0	MM BTU/MM SCF
Percent Sulfur of Fuel:	0.0	percent
Percent Ash of Fuel:	0.0	percent
<b>Percent Carbon Content:</b>	0.0	percent

#### Operating Detail

	Value
Operating Time in Hours per Day:	0
Operating Time in Days per Week:	0
Operating Time in Weeks per Year:	0
Operating Time in Hours per Year:	0
<b>Percent of Operation During Winter:</b>	0
<b>Percent of Operation During Spring:</b>	0
Percent of Operation During Summer:	0
Percent of Operation During Fall:	0

#### Actual Pollutants

Pollutant	Amount	Unit of Measure	Calculation Method
Carbon Monoxide:	0.0	tons/y	EPA emission factors (e.g., AP-42)
Nitrogen Dioxide:	0.0	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (10 microns or less):	0.0	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (total suspended):	0.0	tons/y	EPA emission factors (e.g., AP-42)
Sulfur Dioxide:	0.0	tons/y	EPA emission factors (e.g., AP-42)
Volatile Organic Compounds (VOC):	0.0	tons/y	EPA emission factors (e.g., AP-42)

#### Subject Item Comments

This unit has not been built.

Wednesday, March 19, 2014

Agency ID: 856

Facility Name: Los Alamos National Laboratory

Organization Name: U.S. Department of Energy National Nuclear Security Administration

**Submittal Status:** 2013 Submittal (In Process)

Facility ID: 134

**Designation:** TA-16-1484-BS-1

**Description:** Low NOx Boiler TA-16-1484-BS-1

Type: Boiler

**SCC:** External Combustion Boilers,

Commercial/Institutional, Natural Gas, < 10 Million Btu/hr

GHG Reporting: Reports GHG to EPA

#### Supplemental Parameters

	Amount	Unit of Measure
Fuel Type:	Natural Gas	
Input Materials Processed:	Natural Gas (INPUT)	
Materials Consumed:	10.19	MM SCF/y
Fuel Heating Value:	1021.0	MM BTU/MM SCF
Percent Sulfur of Fuel:	0.001	percent
Percent Ash of Fuel:	0.0	percent
Percent Carbon Content:	65.0	percent

### Operating Detail

	Value
Operating Time in Hours per Day:	24
Operating Time in Days per Week:	7
Operating Time in Weeks per Year:	52
Operating Time in Hours per Year:	8760
Percent of Operation During Winter:	25
Percent of Operation During Spring:	25
Percent of Operation During Summer:	25
Percent of Operation During Fall:	25

## Actual Pollutants

Pollutant	Amount	Unit of Measure	Calculation Method
Carbon Monoxide:	0.189	tons/y	Design calculation
Lead:	0.0	tons/y	Design calculation
Nitrogen Dioxide:	0.189	tons/y	Design calculation
Particulate Matter (10 microns or less):	0.039	tons/y	Design calculation
Particulate Matter (2.5 microns or less):	0.039	tons/y	Design calculation
Particulate Matter (total suspended):	0.039	tons/y	Design calculation
Sulfur Dioxide:	0.003	tons/y	Design calculation
Volatile Organic Compounds (VOC):	0.028	tons/y	Design calculation
Subject Item Comments			

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Wednesday, March 19, 2014

Agency ID: 856

Facility Name: Los Alamos National Laboratory

Organization Name: U.S. Department of Energy National Nuclear Security Administration

Submittal Status: 2013 Submittal (In Process)

Facility ID: 137

**Designation:** TA-3-22-2

**Description:** Power Plant Boiler (pph, No. 2 fuel oil)

Type: Boiler

SCC: External Combustion Boilers,

Electric Generation, Distillate Oil,

Grades 1 and 2 Oil

GHG Reporting: Reports GHG to EPA

## Supplemental Parameters

	Amount	Unit of Measure
Fuel Type:	Diesel	
Input Materials Processed:	Diesel (INPUT)	
<b>Materials Consumed:</b>	0.0	<sub>,</sub> g/yr
Fuel Heating Value:	138.0	MM BTU/M gal
Percent Sulfur of Fuel:	0.05	percent
Percent Ash of Fuel:	0.01	percent
Percent Carbon Content:	83.0	percent

#### Operating Detail

	Value
Operating Time in Hours per Day:	24
Operating Time in Days per Week:	7
Operating Time in Weeks per Year:	52
Operating Time in Hours per Year:	8760
Percent of Operation During Winter:	30
Percent of Operation During Spring:	20
<b>Percent of Operation During Summer:</b>	20
Percent of Operation During Fall:	30

#### **Actual Pollutants**

Pollutant	Amount	Unit of Measure	Calculation Method
Carbon Monoxide:	0.0	tons/y	EPA emission factors (e.g., AP-42)
Formaldehyde:	0.0	tons/y	EPA emission factors (e.g., AP-42)
Hexane:	0.0	tons/y	EPA emission factors (e.g., AP-42)
Nitrogen Dioxide:	0.0	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (10 microns or less):	0.0	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (2.5 microns or less):	0.0	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (total suspended):	0.0	tons/y	EPA emission factors (e.g., AP-42)
Sulfur Dioxide:	0.0	tons/y	EPA emission factors (e.g., AP-42)
Volatile Organic Compounds (VOC):	0.0	tons/y	EPA emission factors (e.g., AP-42)

Wednesday, March 19, 2014

Agency ID: 856

Facility Name: Los Alamos National Laboratory

Organization Name: U.S. Department of Energy National Nuclear Security Administration

Submittal Status: 2013 Submittal (In Process)

Facility ID: 138

**Designation:** TA-3-22-3

**Description:** Power Plant Boiler (pph, No. 2 fuel oil)

Type: Boiler

SCC: External Combustion Boilers,

Electric Generation, Distillate Oil,

Grades 1 and 2 Oil

GHG Reporting: Reports GHG to EPA

### Supplemental Parameters

	Amount	Unit of Measure
Fuel Type:	Diesel	9
Input Materials Processed:	Diesel (INPUT)	
<b>Materials Consumed:</b>	2485.0	gal/y
Fuel Heating Value:	138.0	MM BTU/M gal
Percent Sulfur of Fuel:	0.05	percent
Percent Ash of Fuel:	0.01	percent
Percent Carbon Content:	83.0	percent

#### Operating Detail

	value
Operating Time in Hours per Day:	24
Operating Time in Days per Week:	7
Operating Time in Weeks per Year:	52
Operating Time in Hours per Year:	8760
Percent of Operation During Winter:	30
Percent of Operation During Spring:	20
Percent of Operation During Summer:	20
Percent of Operation During Fall:	30

### **Actual Pollutants**

Pollutant	Amount	Unit of Measure	Calculation Method
Carbon Monoxide:	0.006	tons/y	EPA emission factors (e.g., AP-42)
Formaldehyde:	0.0	tons/y	EPA emission factors (e.g., AP-42)
Hexane:	0.0	tons/y	EPA emission factors (e.g., AP-42)
Nitrogen Dioxide:	0.011	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (10 microns or less):	0.003	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (2.5 microns or less):	0.002	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (total suspended):	0.004	tons/y	EPA emission factors (e.g., AP-42)
Sulfur Dioxide:	0.009	tons/y	EPA emission factors (e.g., AP-42)
Volatile Organic Compounds (VOC):	0.0	tons/y	EPA emission factors (e.g., AP-42)

Wednesday, March 19, 2014

Agency ID: 856

Facility Name: Los Alamos National Laboratory

Organization Name: U.S. Department of Energy National Nuclear Security Administration

Submittal Status: 2013 Submittal (In Process)

Facility ID: 141

**Designation:** TA-3-22-1

**Description:** Power Plant Boiler (pph, No. 2 fuel oil)

Type: Boiler

SCC: External Combustion Boilers,

Electric Generation, Natural Gas,

Boilers > 100 Million Btu/hr

except Tangential

**GHG Reporting:** Reports GHG to EPA

### Supplemental Parameters

	Amount	Unit of Measure
Fuel Type:	Diesel	
Input Materials Processed:	Diesel (INPUT)	
Materials Consumed:	1517.0	gal/y
Fuel Heating Value:	138.0	MM BTU/M gal
Percent Sulfur of Fuel:	0.05	percent
Percent Ash of Fuel:	0.01	percent
Percent Carbon Content:	83.0	percent

### Operating Detail

	Value
Operating Time in Hours per Day:	24
Operating Time in Days per Week:	7
Operating Time in Weeks per Year:	52
Operating Time in Hours per Year:	8760
Percent of Operation During Winter:	30
Percent of Operation During Spring:	20
<b>Percent of Operation During Summer:</b>	20
Percent of Operation During Fall:	30

#### **Actual Pollutants**

Pollutant	Amount	of Measure	Calculation Method
Carbon Monoxide:	0.004	tons/y	EPA emission factors (e.g., AP-42)
Nitrogen Dioxide:	0.007	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (10 microns or less):	0.002	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (2.5 microns or less):	0.001	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (total suspended):	0.003	tons/y	EPA emission factors (e.g., AP-42)
Sulfur Dioxide:	0.006	tons/y	EPA emission factors (e.g., AP-42)
Volatile Organic Compounds (VOC):	0.0	tons/y	EPA emission factors (e.g., AP-42)

Wednesday, March 19, 2014

Agency ID: 856

Facility Name: Los Alamos National Laboratory

Organization Name: U.S. Department of Energy National Nuclear Security Administration

Submittal Status: 2013 Submittal (In Process)

Facility ID: 144

Designation: All Boilers

**Description:** Natural Gas and No. 2 Fuel Boilers (cap)

Type: Boiler

SCC: External Combustion Boilers,

Electric Generation, Natural Gas,

Boilers > 100 Million Btu/hr

except Tangential

GHG Reporting: Reports GHG to EPA

#### Supplemental Parameters

	Amount	Unit of Measure
Fuel Type:	Natural Gas	
Input Materials Processed:	Natural Gas (INPUT)	
Materials Consumed:	0.0	MM SCF/y
Fuel Heating Value:	0.0	MM BTU/MM SCF
Percent Sulfur of Fuel:	0.0	percent
Percent Ash of Fuel:	0.0	percent
<b>Percent Carbon Content:</b>	0.0	percent

### Operating Detail

	Value
Operating Time in Hours per Day:	0
Operating Time in Days per Week:	0
Operating Time in Weeks per Year:	0
Operating Time in Hours per Year:	0
Percent of Operation During Winter:	0
Percent of Operation During Spring:	0
Percent of Operation During Summer:	0
Percent of Operation During Fall:	0

### Actual Pollutants

Pollutant	Amount	Unit of Measure	Calculation Method
Carbon Monoxide:	0.0	tons/y	EPA emission factors (e.g., AP-42)
Nitrogen Dioxide:	0.0	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (10 microns or less):	0.0	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (2.5 microns or less):	0.0	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (total suspended):	0.0	tons/y	EPA emission factors (e.g., AP-42)
Sulfur Dioxide:	0.0	tons/y	EPA emission factors (e.g., AP-42)
Volatile Organic Compounds (VOC):	0.0	tons/y	EPA emission factors (e.g., AP-42)

This Facility ID represents the total from the power plant boilers for both natural gas and fuel oil. However, these emissions are already captured with Facility IDs 24, 25, and 26 for natural gas and Facility IDs 137, 138, and 141 for fuel oil. In order to avoid counting the emissions twice, NMED has asked us to enter zeros for this Facility ID.

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Wednesday, March 19, 2014

Agency ID: 856

Facility Name: Los Alamos National Laboratory

Organization Name: U.S. Department of Energy National Nuclear Security Administration

Submittal Status: 2013 Submittal (In Process)

Facility ID: 56

**Designation:** TA-33-G-1

**Description:** Kohler Diesel Generator TA-33-G-1

Type: Internal combustion engine SCC: Internal Combustion Engines,

Electric Generation, Distillate Oil

(Diesel), Reciprocating

GHG Reporting: Reports GHG to EPA

## Supplemental Parameters

	Amount	Unit of Measure
Fuel Type:	Diesel	
Input Materials Processed:	Diesel (INPUT)	
Materials Consumed:	2930.4	gal/y
Fuel Heating Value:	138.0	MM BTU/M gal
Percent Sulfur of Fuel:	0.001	percent
Percent Ash of Fuel:	0.01	percent
Percent Carbon Content:	83.0	percent

### Operating Detail

	Value
Operating Time in Hours per Day:	5
Operating Time in Days per Week:	4
Operating Time in Weeks per Year:	16
Operating Time in Hours per Year:	350
Percent of Operation During Winter:	25
Percent of Operation During Spring:	25
<b>Percent of Operation During Summer:</b>	25
Percent of Operation During Fall:	25

### **Actual Pollutants**

7	Pollutant	Amount	Unit of Measure	Calculation Method
	Carbon Monoxide:	0.348	tons/y	Design calculation
	Lead:	0.0	tons/y	EPA emission factors (e.g., AP-42)
	Nitrogen Dioxide:	0.428	tons/y	Design calculation
P	articulate Matter (10 microns or less):	0.014	tons/y	EPA emission factors (e.g., AP-42)
Pa	articulate Matter (2.5 microns or less):	0.014	tons/y	EPA emission factors (e.g., AP-42)
	Particulate Matter (total suspended):	0.014	tons/y	EPA emission factors (e.g., AP-42)
	Sulfur Dioxide:	0.063	tons/y	EPA emission factors (e.g., AP-42)
	Volatile Organic Compounds (VOC):	0.008	tons/y	EPA emission factors (e.g., AP-42)

Wednesday, March 19, 2014

Agency ID: 856

Facility Name: Los Alamos National Laboratory

Organization Name: U.S. Department of Energy National Nuclear Security Administration

Submittal Status: 2013 Submittal (In Process)

Facility ID: 119

**Designation:** TA-33-G-2

Kohler Diesel Generator

**Description:** TA-33-G-2 (temp located to

TA-39)

**Type:** Internal combustion engine **SCC:** Internal Combustion Engines,

Electric Generation, Distillate Oil

(Diesel), Reciprocating

GHG Reporting: Reports GHG to EPA

## Supplemental Parameters

	Amount	Unit of Measure
Fuel Type:	Diesel	
Input Materials Processed:	Diesel (INPUT)	
Materials Consumed:	41.7	gal/y
Fuel Heating Value:	138.0	MM BTU/M gal
Percent Sulfur of Fuel:	0.001	percent
Percent Ash of Fuel:	0.01	percent
<b>Percent Carbon Content:</b>	83.0	percent

## Operating Detail

	Value
Operating Time in Hours per Day:	2
Operating Time in Days per Week:	2
Operating Time in Weeks per Year:	10
Operating Time in Hours per Year:	25
Percent of Operation During Winter:	50
Percent of Operation During Spring:	0
<b>Percent of Operation During Summer:</b>	0
Percent of Operation During Fall:	50

#### Actual Pollutants

Pollutant	Amount	Unit of Measure	Calculation Method
Carbon Monoxide:	0.002	tons/y	Design calculation
Nitrogen Dioxide:	0.01	tons/y	Design calculation
Particulate Matter (10 microns or less):	0.001	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (total suspended):	0.001	tons/y	EPA emission factors (e.g., AP-42)
Sulfur Dioxide:	0.001	tons/y	EPA emission factors (e.g., AP-42)
Volatile Organic Compounds (VOC):	0.001	tons/y	EPA emission factors (e.g., AP-42)

Wednesday, March 19, 2014

Agency ID: 856

Facility Name: Los Alamos National Laboratory

Organization Name: U.S. Department of Energy National Nuclear Security Administration

Submittal Status: 2013 Submittal (In Process)

Facility ID: 120

**Designation:** TA-33-G-3

Kohler Diesel Generator

**Description:** TA-33-G-3 (temp located to

TA-39)

**Type:** Internal combustion engine **SCC:** Internal Combustion Engines,

Electric Generation, Distillate Oil

Value

(Diesel), Reciprocating

**GHG Reporting:** Reports GHG to EPA

#### Supplemental Parameters

	Amount	Unit of Measure
Fuel Type:	Diesel	
Input Materials Processed:	Diesel (INPUT)	
Materials Consumed:	47.1	gal/y
Fuel Heating Value:	138.0	MM BTU/M gal
Percent Sulfur of Fuel:	0.001	percent
Percent Ash of Fuel:	0.01	percent
Percent Carbon Content:	83.0	percent

### Operating Detail

	value
Operating Time in Hours per Day:	2
Operating Time in Days per Week:	2
Operating Time in Weeks per Year:	10
Operating Time in Hours per Year:	30
Percent of Operation During Winter:	50
Percent of Operation During Spring:	0
Percent of Operation During Summer:	0
Percent of Operation During Fall:	50

### Actual Pollutants

Pollutant	Amount	Unit of Measure	Calculation Method
Carbon Monoxide:	0.002	tons/y	Design calculation
Nitrogen Dioxide:	0.012	tons/y	Design calculation
Particulate Matter (10 microns or less):	0.001	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (total suspended):	0.001	tons/y	EPA emission factors (e.g., AP-42)
Sulfur Dioxide:	0.001	tons/y	EPA emission factors (e.g., AP-42)
Volatile Organic Compounds (VOC):	0.001	tons/y	EPA emission factors (e.g., AP-42)

Thursday, March 20, 2014

Agency ID: 856

Facility Name: Los Alamos National Laboratory

Organization Name: U.S. Department of Energy National Nuclear Security Administration

**Submittal Status:** 2013 Submittal (In Process)

Facility ID: 128

**Designation:** 3 Generators

3 Cummins Diesel Powered

**Description:** Generators, CMRR-GEN-1,

CMRR-GEN-2, and CMRR-GEN-3

Type: Internal combustion engine

SCC: Internal Combustion Engines,

Industrial, Distillate Oil (Diesel), Reciprocating: Cogeneration

GHG Reporting: Reports GHG to EPA

### Supplemental Parameters

	Amount	Unit of Measure
Fuel Type:	Diesel	
Materials Consumed:	9614.1	gal

### Operating Detail

	Value
Operating Time in Hours per Day:	24
Operating Time in Days per Week:	7
Operating Time in Weeks per Year:	52
Operating Time in Hours per Year:	8760
Percent of Operation During Winter:	25
Percent of Operation During Spring:	25
<b>Percent of Operation During Summer:</b>	25
Percent of Operation During Fall:	25

### Actual Pollutants

Pollutant	Amount	Unit of Measure	Calculation Method
Carbon Monoxide:	0.487	tons/y	EPA emission factors (e.g., AP-42)
Nitrogen Dioxide:	2.227	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (10 microns or less):	0.07	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (2.5 microns or less):	0.07	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (total suspended):	0.07	tons/y	EPA emission factors (e.g., AP-42)
Sulfur Dioxide:	0.038	tons/y	EPA emission factors (e.g., AP-42)
Volatile Organic Compounds (VOC):	0.07	tons/y	EPA emission factors (e.g., AP-42)
Subject Item Comments			

Print Close

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Wednesday, March 19, 2014

Agency ID: 856

Facility Name: Los Alamos National Laboratory

Organization Name: U.S. Department of Energy National Nuclear Security Administration

Submittal Status: 2013 Submittal (In Process)

Facility ID: 135

Designation: TA-33-G-4

**Description:** Caterpillar Diesel Generator TA-33-G-4

Type: Internal combustion engine SCC: Internal Combustion Engines,

Electric Generation, Distillate Oil

(Diesel), Reciprocating

GHG Reporting: Reports GHG to EPA

## Supplemental Parameters

0.	Amount	Unit of Measure
Fuel Type:	Diesel	
Input Materials Processed:	Diesel (INPUT)	
Materials Consumed:	173.8	gal/y
Fuel Heating Value:	138.0	MM BTU/M gal
Percent Sulfur of Fuel:	0.001	percent
Percent Ash of Fuel:	0.01	percent
<b>Percent Carbon Content:</b>	83.0	percent

### Operating Detail

	value
Operating Time in Hours per Day:	2
Operating Time in Days per Week:	2
Operating Time in Weeks per Year:	10
Operating Time in Hours per Year:	15
Percent of Operation During Winter:	50
Percent of Operation During Spring:	50
<b>Percent of Operation During Summer:</b>	0
Percent of Operation During Fall:	0

#### Actual Pollutants

Pollutant	Amount	Unit of Measure	Calculation Method
Carbon Monoxide:	0.011	tons/y	Design calculation
Nitrogen Dioxide:	0.052	tons/y	Design calculation
Particulate Matter (10 microns or less):	0.004	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (total suspended):	0.004	tons/y	EPA emission factors (e.g., AP-42)
Sulfur Dioxide:	0.004	tons/y	EPA emission factors (e.g., AP-42)
Volatile Organic Compounds (VOC):	0.004	tons/y	EPA emission factors (e.g., AP-42)

Wednesday, March 19, 2014

Agency ID: 856

Facility Name: Los Alamos National Laboratory

Organization Name: U.S. Department of Energy National Nuclear Security Administration

Submittal Status: 2013 Submittal (In Process)

Facility ID: 146

Designation: TA-33-G-1P

**Description:** Cummins Portable Diesel Generator

Type: Internal combustion engine SCC: Internal Combustion Engines,

Electric Generation, Distillate Oil

(Diesel), Reciprocating

GHG Reporting: Reports GHG to EPA

## Supplemental Parameters

of Measure
gal/y
BTU/M gal
percent

## Operating Detail

	Value
Operating Time in Hours per Day:	0
Operating Time in Days per Week:	0
Operating Time in Weeks per Year:	0
Operating Time in Hours per Year:	0
Percent of Operation During Winter:	0
Percent of Operation During Spring:	0
Percent of Operation During Summer:	0
Percent of Operation During Fall:	0

#### Actual Pollutants

Pollutant	Amount	Unit of Measure	Calculation Method
Carbon Monoxide:	0.0	tons/y	EPA emission factors (e.g., AP-42)
Nitrogen Dioxide:	0.0	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (10 microns or less):	0.0	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (2.5 microns or less):	0.0	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (total suspended):	0.0	tons/y	EPA emission factors (e.g., AP-42)
Sulfur Dioxide:	0.0	tons/y	EPA emission factors (e.g., AP-42)
Volatile Organic Compounds (VOC):	0.0	tons/y	EPA emission factors (e.g., AP-42)

### Subject Item Comments

This generator was permitted to operate at this location in December 2013 and it did not operate in 2013.

Wednesday, March 19, 2014

Agency ID: 856

Facility Name: Los Alamos National Laboratory

Organization Name: U.S. Department of Energy National Nuclear Security Administration

**Submittal Status:** 2013 Submittal (In Process)

Facility ID: 21

**Designation:** TA-55-DG-1

**Description:** Degreaser - Ultrasonic Cold Batch TA-55-4

Type: Parts Washer

SCC: Petroleum and Solvent

Evaporation, Organic Solvent Evaporation, Degreasing, Trichloroethylene: General

Degreasing Units

GHG Reporting: Reports GHG to EPA

Supplemental Parameters

**Input Materials Processed:** 

Solvent (INPUT)

Operating Detail

	Value
Operating Time in Hours per Day:	4
Operating Time in Days per Week:	1
Operating Time in Weeks per Year:	52
Operating Time in Hours per Year:	208
Percent of Operation During Winter:	25
Percent of Operation During Spring:	25
<b>Percent of Operation During Summer:</b>	25
Percent of Operation During Fall:	25

Actual Pollutants

**Pollutant** 

Amount

Unit of Measure

Calculation Method

TCE; (Trichloroethylene); (Trichloroethene):

0.008

tons/y

Material balance

Subject Item Comments

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## Facility Annual Emissions - Subject Item Submittal Review

Wednesday, March 19, 2014

Agency ID: 856

Facility Name: Los Alamos National Laboratory

Organization Name: U.S. Department of Energy National Nuclear Security Administration

Submittal Status: 2013 Submittal (In Process)

Facility ID: 7

**Designation:** LANL-FW-CHEM

**Description:** R & D Activities - Labwide (031)

**Type:** Research/Testing **SCC:** Industrial Processes,

Photographic Equipment/Health Care/Laboratories, Laboratories, Bench Scale Reagents: Research

GHG Reporting: Reports GHG to EPA

# Supplemental Parameters Operating Detail

Value 24 Operating Time in Hours per Day: 7 Operating Time in Days per Week: 52 Operating Time in Weeks per Year: Operating Time in Hours per Year: 8760 **Percent of Operation During Winter:** 25 Percent of Operation During Spring: 25 **Percent of Operation During Summer:** 25 25 Percent of Operation During Fall:

#### Actual Pollutants

Pollutant	Amount	Unit of Measure	Calculation Method
Acetaldehyde; (Ethyl aldehyde):	0.0	tons/y	Material balance
Acetonitrile; (Methyl cyanide):	0.0	tons/y	Material balance
Acetophenone:	0.0	tons/y	Material balance
Acrylamide:	0.0	tons/y	Material balance
Acrylic acid:	0.0	tons/y	Material balance
Acrylonitrile:	0.0	tons/y	Material balance
Ammonia:	0.0	tons/y	Material balance
Aniline:	0.0	tons/y	Material balance
Antimony:	0.0	tons/y	Material balance
Antimony compounds:	0.0	tons/y	Material balance
Arsenic Compounds:	0.0	tons/y	Material balance
Benzene:	0.0	tons/y	Material balance
Benzyl Chloride:	0.0	tons/y	Material balance
Biphenyl:	0.0	tons/y	Material balance
Bromoform; (Tribromomethane):	0.0	tons/y	Material balance
Butadiene(1,3-):	0.0	tons/y	Material balance
Cadmium:	0.0	tons/y	Material balance
Cadmium compounds:	0.0	tons/y	Material balance
Carbon Disulfide:	0.0	tons/y	Material balance
Carbon tetrachloride; (Tetrachoromethane):	0.0	tons/y	Material balance
Carbonyl sulfide:	0.0	tons/y	Material balance

Catechol (Pyrocatechol):	0.0	tons/y	Material balance
Chlorine:	0.0	tons/y	Material balance
Chloroacetic Acid:	0.0	tons/y	Material balance
Chlorobenzene(Phenyl Chloride):	0.0	tons/y	Material balance
Chloroform; (Trichloromethane):	0.0	tons/y	Material balance
Chromium:	0.0	tons/y	Material balance
Cobalt Compounds:	0.0	tons/y	Material balance
Cresol(m-); (Methylphenol, 3-):	0.0	tons/y	Material balance
Cumene:	0.0	tons/y	Material balance
Cyanide compounds:	0.0	tons/y	Material balance
Dibutylphthalate; (Di-n-butyl phthalate):	0.0	tons/y	Material balance
Diethanolamine:	0.0	tons/y	Material balance
Dimethyl Sulfate:	0.0	tons/y	Material balance
Dimethyl formamide:	0.0	tons/y	Material balance
Dimethylhydrazine(1,1-):	0.0	tons/y	Material balance
Dioxane(1,4-) (1,4-Diethyleneoxide):	0.0	tons/y	Material balance
Epichlorohydrin; (1-Chloro-2,3-epoxypropane):	0.0	tons/y	Material balance
Epoxybutane(1,2-) (1,2-Butylene oxide):	0.0	tons/y	Material balance
Ethyl Acrylate:	0.0	tons/y	Material balance
Ethyl chloride; (Chloroethane):	0.0	tons/y	Material balance
Ethylene Glycol:	0.0	tons/y	Material balance
Ethylene dibromide; (EDB); (1.2-Dibromoethane):	0.0	tons/y	Material balance
Formaldehyde:	0.0	tons/y	Material balance
Glycol Ethers:	0.0	tons/y	Material balance
Hexachlorocyclopentadiene:	0.0	tons/y	Material balance
Hexamethylphosphoramide:	0.0	tons/y	Material balance
Hexane:	0.0	tons/y	Material balance
Hydrazine:	0.0	tons/y	Material balance
Hydrochloric acid (HCI):	0.83	tons/y	Material balance
Hydrofluoric Acid; (Hydrogen fluoride):	0.0	tons/y	Material balance
Hydroquinone:	0.0	tons/y	Material balance
Iodomethane (Methyl iodide):	0.0	tons/y	Material balance
Lead Compounds:	0.0	tons/y	Material balance
Manganese:	0.0	tons/y	Material balance
Manganese compounds:	0.0	tons/y	Material balance
Mercury compounds:	0.0	tons/y	Material balance
Methanol; (Methyl alcohol):	0.0	tons/y	Material balance
Methyl Ethyl Ketone; (MEK); (2-Butanone):	0.0	tons/y	Material balance
Methyl Methacrylate:	0.0	tons/y	Material balance
Methyl bromide; (Bromomethane):	0.0	tons/y	Material balance
Methyl chloride; (Chloromethane):	0.0	tons/y	Material balance
Methyl isobutyl ketone; (Hexone); (4-Methyl-2-pentanone):	0.0	tons/y	Material balance
Methyl tert butyl ether:	0.0	tons/y	Material balance
Methylene chloride; (Dichloromethane):	0.0	tons/y	Material balance
Methylenebiphenyl isocyanate; (MDI); (Diphenylmethane diisocyanate):	0.0	tons/y	Material balance
Naphthalene:	0.0	tons/y	Material balance
Nickel:	0.0	tons/y	Material balance
Nickel compounds:	0.0	tons/y	Material balance
Nitrobenzene; (nitro-Benzene):	0.0	tons/y	Material balance
Nitrophenol(4-); (p-Nitrophenol):	0.0	tons/y	Material balance
PCE; (Perchloroethylene); (Tetrachloroethylene); (Tetrachloroethene):	0.0	tons/y	Material balance

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Phenol:	0.0	tons/y	Material balance
Phenylenediamine(p-); (Phenylenediamine):	0.0	tons/y	Material balance
Phosphine:	0.0	tons/y	Material balance
Phosphorus:	0.0	tons/y	Material balance
Phthalic anhydride:	0.0	tons/y	Material balance
Polycylic Organic Matter:	0.0	tons/y	Material balance
Propylene oxide:	0.0	tons/y	Material balance
Selenium:	0.0	tons/y	Material balance
Selenium compounds:	0.0	tons/y	Material balance
Styrene:	0.0	tons/y	Material balance
TCE; (Trichloroethylene); (Trichloroethene):	0.0	tons/y	Material balance
Tetrachloroethane(1,1,2,2-):	0.0	tons/y	Material balance
Titanium tetrachloride:	0.0	tons/y	Material balance
Toluene diisocyanate(2,4-):	0.0	tons/y	Material balance
Toluene; (Methyl benzene):	0.0	tons/y	Material balance
Total HAP:	3.49	tons/y	Material balance
Trichloroethane(1,1,1-) (Methyl Chloroform):	0.0	tons/y	Material balance
Trichloroethane(1,1,2-):	0.0	tons/y	Material balance
Triethylamine:	0.0	tons/y	Material balance
Trimethylpentane(2,2,4-):	0.0	tons/y	Material balance
Urethane; (Ethyl carbamate):	0.0	tons/y	Material balance
Vinyl acetate; (Vinyl acetate monomer):	0.0	tons/y	Material balance
Volatile Organic Compounds (VOC):	9.59	tons/y	Material balance
Xylene(o-); (1,2-Dimethylbenzene); (ortho-Xylene):	0.0	tons/y	Material balance
Xylenes (total); (Xylol):	0.0	tons/y	Material balance
bis(2-ethylhexyl) phthalate; (Di-2-ethylhexyl phthalate); (DEHP):	0.0	tons/y	Material balance
Subject Item Comments			

Print Close

Wednesday, March 19, 2014

Agency ID: 856

Facility Name: Los Alamos National Laboratory

Organization Name: U.S. Department of Energy National Nuclear Security Administration

Submittal Status: 2013 Submittal (In Process)

Facility ID: 89

**Designation:** TA-52-11

**Description:** Data Disintegrator/industrial Shredder

Type: Shredder

SCC: Industrial Processes, Pulp and

Paper and Wood Products, Miscellaneous Paper Products,

Other Not Classified

GHG Reporting: Reports GHG to EPA

# Supplemental Parameters

**Input Materials Processed:** 

Paper (INPUT)

## Operating Detail

	Value
Operating Time in Hours per Day:	7
Operating Time in Days per Week:	5
Operating Time in Weeks per Year:	52
Operating Time in Hours per Year:	1820
Percent of Operation During Winter:	25
Percent of Operation During Spring:	25
<b>Percent of Operation During Summer:</b>	25
Percent of Operation During Fall:	25

#### Actual Pollutants

Pollutant	Amount	Unit of Measure	Calculation Method
Particulate Matter (10 microns or less):	0.07	tons/y	Manufacturer Specification
Particulate Matter (2.5 microns or less):	0.04	tons/y	Manufacturer Specification
Particulate Matter (total suspended):	0.07	tons/y	Manufacturer Specification
Subject Item Comments			

Close Print

Wednesday, March 19, 2014

Agency ID: 856

Facility Name: Los Alamos National Laboratory

Organization Name: U.S. Department of Energy National Nuclear Security Administration

Submittal Status: 2013 Submittal (In Process)

Facility ID: 112

**Designation:** TA-3-22-CT-1

**Description:** Combustion Turbine

**Type:** Turbine

**SCC:** Internal Combustion Engines,

Electric Generation, Natural Gas,

Turbine

**GHG Reporting:** Reports GHG to EPA

## Supplemental Parameters

	Amount	Unit of Measure
Fuel Type:	Natural Gas	
Input Materials Processed:	Natural Gas (INPUT)	
Materials Consumed:	94.8	MM SCF/y
Fuel Heating Value:	1021.0	MM BTU/MM SCF
Percent Sulfur of Fuel:	0.001	percent
Percent Ash of Fuel:	0.0	percent
<b>Percent Carbon Content:</b>	65.0	percent

# Operating Detail

	Value
Operating Time in Hours per Day:	7
Operating Time in Days per Week:	4
Operating Time in Weeks per Year:	12
Operating Time in Hours per Year:	500
Percent of Operation During Winter:	25
Percent of Operation During Spring:	25
<b>Percent of Operation During Summer:</b>	25
Percent of Operation During Fall:	25

## Actual Pollutants

Subject Item Comments

Pollutant	Amount	Unit of Measure	Calculation Method
Carbon Monoxide:	0.5	tons/y	EPA emission factors (e.g., AP-42)
Lead:	0.0	tons/y	EPA emission factors (e.g., AP-42)
Nitrogen Dioxide:	2.39	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (10 microns or less):	0.32	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (2.5 microns or less):	0.32	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (total suspended):	0.32	tons/y	EPA emission factors (e.g., AP-42)
Sulfur Dioxide:	0.17	tons/y	EPA emission factors (e.g., AP-42)
Volatile Organic Compounds (VOC):	0.1	tons/y	EPA emission factors (e.g., AP-42)