

memorandum

Environmental Protection & Compliance Division Los Alamos National Laboratory

To/MS: 2016 Emissions Inventory File

Thru/MS: Steve Story, EPC-CP, MS J978

From/MS: Walt Whetham, EPC-CP, MS J978v

Phone: 505-665-8885 Symbol: EPC-DO: 17-130 Date: MAR 2 2 2017

Subject: 2016 Emissions Inventory Electronic Submittal

Los Alamos National Laboratory (LANL) submitted their 2016 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 27, 2017, and meets New Mexico Environmental Department's deadline of April 1st.

Should you have any questions or comments regarding the information provided in this report, please contact Steve Story at (505) 665-2169 or story@lanl.gov.

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EPC-CP Emissions Inventory File, J978



Enclosure 1

2016 Emissions Inventory Report

EPC-DO-17-130

LA-UR-17-22005

Electronic Submittal

Date: MAR 2 2 2017

Tuesday, March 21, 2017

Agency ID: 856

Facility Name: Los Alamos National Laboratory

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

Submittal Status: 2016 Submittal (In Process)

Subject Item ID: EQPT-116 **Designation: TA-60-BDM**

Description: Asphalt Plant Dryer - Natural Gas

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:	Natural Gas			
Input Materials Processed:	Asphalt (INPUT)			
Materials Consumed:	1.47	MM SCF		
Fuel Heating Value:	1020.0	MM BTU/MM SCF		
Percent Sulfur of Fuel:	0.001	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
Percent of Operation During Summer:	30
Percent of Operation During Fall:	30

Pollutant	Amount	Unit of Measure	Calculation Method
Carbon Monoxide:	0.152	tons/y	EPA emission factors (e.g., AP-42)
Ethylbenzene:	0.001	tons/y	EPA emission factors (e.g., AP-42)
Lead:	0.0	tons/y	EPA emission factors (e.g., AP-42)
Nitrogen Dioxide:	0.004	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (10 microns or less):	0.002	tons/y	Manufacturer Specification
Particulate Matter (2.5 microns or less):	0.002	tons/y	Manufacturer Specification
Particulate Matter (total suspended):	0.003	tons/y	Manufacturer Specification
Sulfur Dioxide:	0.002	tons/y	EPA emission factors (e.g., AP-42)

Volatile Organic Compounds (VOC): 0.003 tons/y EPA emission factors (e.g., AP-42)

Subject Item Comments

Tuesday, March 21, 2017

Agency ID: 856

Facility Name: Los Alamos National Laboratory

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

Submittal Status: 2016 Submittal (In Process)

Subject Item ID: ACT -2 **Designation:** TA-35-213

> Beryllium Activity-Be Target **Description:** 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

emental 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	
Percent of Operation During Summer:	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

Tuesday, March 21, 2017

Agency ID: 856

Facility Name: Los Alamos National Laboratory

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

Submittal Status: 2016 Submittal (In Process)

Subject Item ID: ACT -3 **Designation: TA-3-141**

Description: Beryllium Activity-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
Percent of Operation During Summer:	25
Percent of Operation During Fall:	25

Actual Pollutants

Pollutant	Amount	Unit of Measure	Calculation Method
Beryllium:	0.0	tons/y	Field measurement
Particulate Matter (total suspended):	0.0	tons/y	Field measurement

Subject Item Comments

Tuesday, March 21, 2017

Agency ID: 856

Facility Name: Los Alamos National Laboratory

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

Submittal Status: 2016 Submittal (In Process)

Subject Item ID: ACT -6

Designation: TA-55-PF4 (a)

Beryllium Activity-Plutonium

Description: Facility Beryllium 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

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Summ	lamant	3/ D3rs	meters
1010101		arrera	meters

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
Percent of Operation During Summer:	25
Percent of Operation During Fall:	25

Actual Pollutants

Pollutant	Amount	Unit of Measure	Calculation Method
Beryllium:	0.0	tons/y	Estimate

Subject Item Comments

Close

Tuesday, March 21, 2017

Agency ID: 856

Facility Name: Los Alamos National Laboratory

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

Submittal Status: 2016 Submittal (In Process)

Subject Item ID: ACT -41 **Designation: TA-3-66**

Beryllium Activity-Sigma

Description: 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 P	rocessed:	Metal (INPUT)		
Operating Detail	THE REAL PROPERTY.			
			Value	
	Operatin	g 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	
	Danasak of (Sanualism Division Minhaus	25	

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	
Beryllium:	0.0	tons/v	Estimate	

Subject Item Comments

Tuesday, March 21, 2017

Agency ID: 856

Facility Name: Los Alamos National Laboratory

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

Submittal Status: 2016 Submittal (In Process)

Subject Item ID: EQPT-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:	9.253	MM SCF
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:	0.389	tons/y	EPA emission factors (e.g., AP-42)
Formaldehyde:	0.0	tons/y	EPA emission factors (e.g., AP-42)
Hexane:	0.008	tons/y	EPA emission factors (e.g., AP-42)
Nitrogen Dioxide:	0.463	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (10 microns or less):	0.035	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (2.5 microns or less):	0.035	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (total suspended):	0.035	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):	0.025	tons/y	EPA emission factors (e.g., AP-42)

Tuesday, March 21, 2017

Agency ID: 856

Facility Name: Los Alamos National Laboratory

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

Submittal Status: 2016 Submittal (In Process)

Subject Item ID: EQPT-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: Natu	ural Gas (INPUT)	
Materials Consumed:	9.253	MM SCF
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

ĝ.	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:	0.389	tons/y	EPA emission factors (e.g., AP-42)
Formaldehyde:	0.0	tons/y	EPA emission factors (e.g., AP-42)
Hexane:	0.008	tons/y	EPA emission factors (e.g., AP-42)
Nitrogen Dioxide:	0.463	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (10 microns or less):	0.035	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (2.5 microns or less):	0.035	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (total suspended):	0.035	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):	0.025	tons/y	EPA emission factors (e.g., AP-42)

Tuesday, March 21, 2017

Agency ID: 856

Facility Name: Los Alamos National Laboratory

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

Submittal Status: 2016 Submittal (In Process)

Subject Item ID: EQPT-24

Designation: TA-3-22-1 (gas)

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:	29.205	MM SCF
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

Pollutant	Amount	of Measure	Calculation Method
Carbon Monoxide:	0.584	tons/y	EPA emission factors (e.g., AP-42)
Formaldehyde:	0.001	tons/y	EPA emission factors (e.g., AP-42)
Hexane:	0.026	tons/y	EPA emission factors (e.g., AP-42)
Nitrogen Dioxide:	0.847	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (10 microns or less):	0.111	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (2.5 microns or less):	0.111	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (total suspended):	0.111	tons/y	EPA emission factors (e.g., AP-42)
Sulfur Dioxide:	0.009	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):** 0.08 tons/y EPA emission factors (e.g., AP-42)

Subject Item Comments

Tuesday, March 21, 2017

Agency ID: 856

Facility Name: Los Alamos National Laboratory

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

Submittal Status: 2016 Submittal (In Process)

Subject Item ID: EQPT-25

Designation: TA-3-22-2 (gas)

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:	266.337	MM SCF
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

Pollutant	Amount	Unit of Measure	Calculation Method
Carbon Monoxide:	5.327	tons/y	EPA emission factors (e.g., AP-42)
Formaldehyde:	0.01	tons/y	EPA emission factors (e.g., AP-42)
Hexane:	0.24	tons/y	EPA emission factors (e.g., AP-42)
Nitrogen Dioxide:	7.724	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (10 microns or less):	1.012	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (2.5 microns or less):	1.012	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (total suspended):	1.012	tons/y	EPA emission factors (e.g., AP-42)
Sulfur Dioxide:	0.08	tons/y	EPA emission factors (e.g., AP-42)

Volatile Organic Compounds (VOC): 0.732 tons/y EPA emission factors (e.g., AP-42)

Subject Item Comments

Tuesday, March 21, 2017

Agency ID: 856

Facility Name: Los Alamos National Laboratory

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

Submittal Status: 2016 Submittal (In Process)

Subject Item ID: EQPT-26

Designation: TA-3-22-3 (gas)

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:	62.121	MM SCF
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

Pollutant	Amount	Unit of Measure	Calculation Method
Carbon Monoxide:	1.242	tons/y	EPA emission factors (e.g., AP-42)
Formaldehyde:	0.002	tons/y	EPA emission factors (e.g., AP-42)
Hexane:	0.056	tons/y	EPA emission factors (e.g., AP-42)
Nitrogen Dioxide:	1.802	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (10 microns or less):	0.236	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (2.5 microns or less):	0.236	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (total suspended):	0.236	tons/y	EPA emission factors (e.g., AP-42)
Sulfur Dioxide:	0.019	tons/y	EPA emission factors (e.g., AP-42)

Volatile Organic Compounds (VOC): 0.171 tons/y EPA emission factors (e.g., AP-42)

Subject Item Comments

Tuesday, March 21, 2017

Agency ID: 856

Facility Name: Los Alamos National Laboratory

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

Submittal Status: 2016 Submittal (In Process)

Subject Item ID: EQPT-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

	Amount	Unit of Measure
Fuel Type:	Natural Gas	
Input Materials Processed:	Natural Gas (INPUT)	
Materials Consumed:	5.585	MM SCF
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:	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:	0.107	tons/y	EPA emission factors (e.g., AP-42)
Formaldehyde:	0.0	tons/y	EPA emission factors (e.g., AP-42)
Hexane:	0.005	tons/y	EPA emission factors (e.g., AP-42)
Nitrogen Dioxide:	0.385	tons/y	Actual stack test
Particulate Matter (10 microns or less):	0.04	tons/y	Manufacturer Specification
Particulate Matter (2.5 microns or less):	0.04	tons/y	Manufacturer Specification
Particulate Matter (total suspended):	0.04	tons/y	Manufacturer Specification
Sulfur Dioxide:	0.002	tons/y	EPA emission factors (e.g., AP-42)
Volatile Organic Compounds (VOC):	0.017	tons/y	Manufacturer Specification

Tuesday, March 21, 2017

Agency ID: 856

Facility Name: Los Alamos National Laboratory

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

Submittal Status: 2016 Submittal (In Process)

Subject Item ID: EQPT-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:	16.48	MM SCF
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
Percent of Operation During Summer:	10
Percent of Operation During Fall:	40

Pollutant	Amount	Unit of Measure	Calculation Method
Carbon Monoxide:	0.315	tons/y	EPA emission factors (e.g., AP-42)
Formaldehyde:	0.001	tons/y	EPA emission factors (e.g., AP-42)
Hexane:	0.015	tons/y	EPA emission factors (e.g., AP-42)
Lead:	0.0	tons/y	EPA emission factors (e.g., AP-42)
Nitrogen Dioxide:	1.137	tons/y	Actual stack test
Particulate Matter (10 microns or less):	0.117	tons/y	Manufacturer Specification
Particulate Matter (2.5 microns or less):	0.117	tons/y	Manufacturer Specification
Particulate Matter (total suspended):	0.117	tons/y	Manufacturer Specification
Sulfur Dioxide:	0.005	tons/y	EPA emission factors (e.g., AP-42)
Volatile Organic Compounds (VOC):	0.049	tons/y	Manufacturer Specification

Tuesday, March 21, 2017

Agency ID: 856

Facility Name: Los Alamos National Laboratory

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

Submittal Status: 2016 Submittal (In Process)

Subject Item ID: EQPT-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:	8.258	MM SCF
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
Percent of Operation During Summer:	25
Percent of Operation During Fall:	25

Actual Pollutants

Carbon Monoxide: 0.153 tons/y Design calculation Hexane: 0.007 tons/y Design calculation Lead: 0.0 tons/y Design calculation Nitrogen Dioxide: 0.153 tons/y Design calculation Particulate Matter (10 microns or less): 0.031 tons/y Design calculation Particulate Matter (2.5 microns or less): 0.031 tons/y Design calculation Particulate Matter (total suspended): 0.031 tons/y Design calculation Sulfur Dioxide: 0.002 tons/y Design calculation Volatile Organic Compounds (VOC): 0.023 tons/y Design calculation	Pollutant	Amount	Unit of Measure	Calculation Method
Lead: 0.0 tons/y Design calculation Nitrogen Dioxide: 0.153 tons/y Design calculation Particulate Matter (10 microns or less): 0.031 tons/y Design calculation Particulate Matter (2.5 microns or less): 0.031 tons/y Design calculation Particulate Matter (total suspended): 0.031 tons/y Design calculation Sulfur Dioxide: 0.002 tons/y Design calculation	Carbon Monoxide:	0.153	tons/y	Design calculation
Nitrogen Dioxide: 0.153 tons/y Design calculation Particulate Matter (10 microns or less): 0.031 tons/y Design calculation Particulate Matter (2.5 microns or less): 0.031 tons/y Design calculation Particulate Matter (total suspended): 0.031 tons/y Design calculation Sulfur Dioxide: 0.002 tons/y Design calculation	Hexane:	0.007	tons/y	Design calculation
Particulate Matter (10 microns or less):0.031tons/yDesign calculationParticulate Matter (2.5 microns or less):0.031tons/yDesign calculationParticulate Matter (total suspended):0.031tons/yDesign calculationSulfur Dioxide:0.002tons/yDesign calculation	Lead:	0.0	tons/y	Design calculation
Particulate Matter (2.5 microns or less): 0.031 tons/y Design calculation Particulate Matter (total suspended): 0.031 tons/y Design calculation Sulfur Dioxide: 0.002 tons/y Design calculation	Nitrogen Dioxide:	0.153	tons/y	Design calculation
Particulate Matter (total suspended):0.031tons/yDesign calculationSulfur Dioxide:0.002tons/yDesign calculation	Particulate Matter (10 microns or less):	0.031	tons/y	Design calculation
Sulfur Dioxide: 0.002 tons/y Design calculation	Particulate Matter (2.5 microns or less):	0.031	tons/y	Design calculation
	Particulate Matter (total suspended):	0.031	tons/y	Design calculation
Volatile Organic Compounds (VOC): 0.023 tons/y Design calculation	Sulfur Dioxide:	0.002	tons/y	Design calculation
	Volatile Organic Compounds (VOC):	0.023	tons/y	Design calculation

Subject Item Comments

1 of 2 3/21/2017 10:57 AM

Tuesday, March 21, 2017

Agency ID: 856

Facility Name: Los Alamos National Laboratory

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

Submittal Status: 2016 Submittal (In Process)

Subject Item ID: EQPT-90

Designation: RLUOB-BHW-1 (gas) **Description:** Boiler-CMRR-BHW-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:	0.9	MM SCF
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:	0.017	tons/y	EPA emission factors (e.g., AP-42)
Hexane:	0.001	tons/y	EPA emission factors (e.g., AP-42)
Nitrogen Dioxide:	0.013	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):	0.002	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (total suspended):	0.002	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):	0.012	tons/y	EPA emission factors (e.g., AP-42)

Tuesday, March 21, 2017

Agency ID: 856

Facility Name: Los Alamos National Laboratory

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

Submittal Status: 2016 Submittal (In Process)

Subject Item ID: EQPT-104

Designation: RLUOB-BHW-2 (gas) **Description:** Boiler-CMRR-BHW-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:	0.9	MM SCF
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:	0.017	tons/y	EPA emission factors (e.g., AP-42)
Hexane:	0.001	tons/y	EPA emission factors (e.g., AP-42)
Nitrogen Dioxide:	0.013	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):	0.002	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (total suspended):	0.002	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):	0.012	tons/y	EPA emission factors (e.g., AP-42)

Tuesday, March 21, 2017

Agency ID: 856

Facility Name: Los Alamos National Laboratory

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

Submittal Status: 2016 Submittal (In Process)

Subject Item ID: EQPT-105

Designation: RLUOB-BHW-3 (gas) **Description:** Boiler-CMRR-BHW-3

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:	0.9	MM SCF	
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:	0.017	tons/y	EPA emission factors (e.g., AP-42)
Hexane:	0.001	tons/y	EPA emission factors (e.g., AP-42)
Nitrogen Dioxide:	0.013	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):	0.002	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (total suspended):	0.002	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):	0.012	tons/y	EPA emission factors (e.g., AP-42)

Tuesday, March 21, 2017

Agency ID: 856

Facility Name: Los Alamos National Laboratory

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

Submittal Status: 2016 Submittal (In Process)

Subject Item ID: EQPT-106

Designation: RLUOB-BHW-4 (gas) **Description:** Boiler-CMRR-BHW-4

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
Fuel Heating Value:	0.0	MM BTU/MM SCF
Percent Sulfur of Fuel:	0.0	percent
Percent Ash of Fuel:	0.0	percent
Percent Carbon Content:	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)

Subject Item Comments

This unit has not been built.

Tuesday, March 21, 2017

Agency ID: 856

Facility Name: Los Alamos National Laboratory

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

Submittal Status: 2016 Submittal (In Process)

Subject Item ID: EQPT-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
Fuel Heating Value:	0.0	MM BTU/MM SCF
Percent Sulfur of Fuel:	0.0	percent
Percent Ash of Fuel:	0.0	percent
Percent Carbon Content:	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 (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

Tuesday, March 21, 2017

Agency ID: 856

Facility Name: Los Alamos National Laboratory

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

Submittal Status: 2016 Submittal (In Process)

Subject Item ID: EQPT-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:	8.258	MM SCF
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

Pollutant	Amount	Unit of Measure	Calculation Method
Carbon Monoxide:	0.153	tons/y	Design calculation
Hexane:	0.007	tons/y	Design calculation
Lead:	0.0	tons/y	Design calculation
Nitrogen Dioxide:	0.153	tons/y	Design calculation
Particulate Matter (10 microns or less):	0.031	tons/y	Design calculation
Particulate Matter (2.5 microns or less):	0.031	tons/y	Design calculation
Particulate Matter (total suspended):	0.031	tons/y	Design calculation
Sulfur Dioxide:	0.002	tons/y	Design calculation
Volatile Organic Compounds (VOC):	0.023	tons/y	Design calculation

Tuesday, March 21, 2017

Agency ID: 856

Facility Name: Los Alamos National Laboratory

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

Submittal Status: 2016 Submittal (In Process)

Subject Item ID: EQPT-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		
Materials Consumed:	0.0	gal	
Fuel Heating Value:	138.0	MM BTU/M gal	
Percent Sulfur of Fuel:	0.05	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)
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)

Tuesday, March 21, 2017

Agency ID: 856

Facility Name: Los Alamos National Laboratory

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

Submittal Status: 2016 Submittal (In Process)

Subject Item ID: EQPT-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

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	Amount	Unit of Measure	
Fuel Type:	Diesel		
Materials Consumed:	0.0	gal	
Fuel Heating Value:	138.0	MM BTU/M gal	
Percent Sulfur of Fuel:	0.05	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)
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)

Tuesday, March 21, 2017

Agency ID: 856

Facility Name: Los Alamos National Laboratory

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

Submittal Status: 2016 Submittal (In Process)

Subject Item ID: EQPT-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		
Materials Consumed:	0.0	gal	
Fuel Heating Value:	138.0	MM BTU/M gal	

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

Tuesday, March 21, 2017

Agency ID: 856

Facility Name: Los Alamos National Laboratory

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

Submittal Status: 2016 Submittal (In Process)

Subject Item ID: EQPT-144

Designation: Boiler combined emissions

TA-16-1484-Bs-1,2; TA -53-365-

Description: BHW-1,2; TA-55-6-BHW-1,2;

RLUOB-BHW-1,2,3,4

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
Fuel Heating Value:	0.0	MM BTU/MM SCF
Percent Sulfur of Fuel:	0.0	percent
Percent Ash of Fuel:	0.0	percent
Percent Carbon Content:	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

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 Facility ID represents the total from the two TA-16 boilers, the two TA-53 boilers, the two TA-55 boilers, and the four RLUOB boilers. However, theses emissions are already captured in other facility IDs. In order to avoid counting the emissions twice, NMED has asked us to enter zeros for this Facility ID.

Tuesday, March 21, 2017

Agency ID: 856

Facility Name: Los Alamos National Laboratory

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

Submittal Status: 2016 Submittal (In Process)

Subject Item ID: EQPT-149

Designation: RLUOB-BHW-1 (oil) **Description:** Boiler-CMRR-BHW-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:	Diesel		
Materials Consumed:	0.0	gal	
Fuel Heating Value:	138.0	MM BTU/M gal	

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)

Subject Item Comments

Tuesday, March 21, 2017

Agency ID: 856

Facility Name: Los Alamos National Laboratory

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

Submittal Status: 2016 Submittal (In Process)

Subject Item ID: EQPT-150

Designation: RLUOB-BHW-2 (oil) **Description:** Boiler-CMRR-BHW-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:	Diesel	
Materials Consumed:	0.0	gal
Fuel Heating Value:	138.0	MM BTU/M gal

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

Tuesday, March 21, 2017

Agency ID: 856

Facility Name: Los Alamos National Laboratory

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

Submittal Status: 2016 Submittal (In Process)

Subject Item ID: EQPT-151

Designation: RLUOB-BHW-3 (oil) **Description:** Boiler-CMRR-BHW-3

Type: Boiler

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

GHG Reporting: Reports GHG to EPA

Supplemental Parameters

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	Amount	Unit of Measure	
Fuel Type:	Diesel		
Materials Consumed:	0.0	gal	
Fuel Heating Value:	138.0	MM BTU/M gal	
Materials Consumed:	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
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

Tuesday, March 21, 2017

Agency ID: 856

Facility Name: Los Alamos National Laboratory

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

Submittal Status: 2016 Submittal (In Process)

Subject Item ID: EQPT-152

Designation: RLUOB-BHW-4 (oil) **Description:** Boiler-CMRR-BHW-4

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:	Diesel	
Materials Consumed:	0.0	gal
Fuel Heating Value:	0.0	MM BTU/M gal

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

Tuesday, March 21, 2017

Agency ID: 856

Facility Name: Los Alamos National Laboratory

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

Submittal Status: 2016 Submittal (In Process)

Subject Item ID: RPNT-34

Designation: Facilitywide Open Burning **Description:** Fugitives - Open Burning

Type: Fugitives

SCC: Industrial Processes, Oil and Gas Production, Fugitive Emissions,

Fugitive Emissions

GHG Reporting: Reports GHG to EPA

Supplemental Parameters

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
Individual HAP:	0.0	tons/y	Engineer Calculation
Total HAP:	0.0	tons/y	Engineer Calculation

Subject Item Comments

Tuesday, March 21, 2017

Agency ID: 856

Facility Name: Los Alamos National Laboratory

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

Submittal Status: 2016 Submittal (In Process)

Fuel Type:

Fuel Heating Value:

Subject Item ID: EQPT-96

Designation: Standby-Generators **Description:** Diesel Generators

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

Industrial, Natural Gas,

Reciprocating

GHG Reporting: Reports GHG to EPA

Supplemental Parameters

Amount	Unit of Measure
Diesel	
138.0	MM BTU/M 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
Percent of Operation During Summer:	25
Percent of Operation During Fall:	25

Actual Pollutants

Pollutant	Amount	Onit of Measure	Calculation Method
Carbon Monoxide:	0.74	tons/y	EPA emission factors (e.g., AP-42)
Nitrogen Dioxide:	3.2	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (10 microns or less):	0.16	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (total suspended):	0.16	tons/y	EPA emission factors (e.g., AP-42)
Sulfur Dioxide:	0.14	tons/y	EPA emission factors (e.g., AP-42)
Volatile Organic Compounds (VOC):	0.16	tons/y	EPA emission factors (e.g., AP-42)

Subject Item Comments

Tuesday, March 21, 2017

Agency ID: 856

Facility Name: Los Alamos National Laboratory

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

Submittal Status: 2016 Submittal (In Process)

Subject Item ID: EQPT-119 Designation: TA-33-G-2

Description: Kohler Diesel Generator TA-33, TA-36, 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:	2.38	gal
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:	1
Operating Time in Weeks per Year:	1
Operating Time in Hours per Year:	2
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:	0.0	tons/y	Design calculation
Nitrogen Dioxide:	0.001	tons/y	Design calculation
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

Tuesday, March 21, 2017

Agency ID: 856

Facility Name: Los Alamos National Laboratory

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

Submittal Status: 2016 Submittal (In Process)

Subject Item ID: EQPT-120 Designation: TA-33-G-3

Description: Kohler Diesel Generator TA-33, TA-36, TA-39

Type: Internal combustion engine SCC: Internal Combustion Engines,

Industrial, Natural Gas,

Reciprocating

GHG Reporting: Reports GHG to EPA

Supplemental Parameters

	Amount	Unit of Measure
Fuel Type:	Diesel	
Input Materials Processed:	Diesel (INPUT)	
Materials Consumed:	2.55	gal
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:	1
Operating Time in Days per Week:	1
Operating Time in Weeks per Year:	2
Operating Time in Hours per Year:	2
Percent of Operation During Winter:	0
Percent of Operation During Spring:	50
Percent of Operation During Summer:	0
Percent of Operation During Fall:	50

Actual Pollutants

Pollutant	Amount	Unit of Measure	Calculation Method
Carbon Monoxide:	0.0	tons/y	Design calculation
Nitrogen Dioxide:	0.001	tons/y	Design calculation
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

Tuesday, March 21, 2017

Agency ID: 856

Facility Name: Los Alamos National Laboratory

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

Submittal Status: 2016 Submittal (In Process)

Subject Item ID: EQPT-128

Designation: RLUOB-GEN 1

Description: Cummins Diesel Powered Generator and Engine - CMRR

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:	2279.2	gal
Fuel Heating Value:	138.0	MM BTU/M 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
ercent of Operation During Summer:	25
Percent of Operation During Fall:	25

Actual Pollutants

Pollutant	Amount	Unit of Measure	Calculation Method
Carbon Monoxide:	0.458	tons/y	EPA emission factors (e.g., AP-42)
Nitrogen Dioxide:	0.369	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (10 microns or less):	0.018	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (total suspended):	0.022	tons/y	EPA emission factors (e.g., AP-42)
Sulfur Dioxide:	0.01	tons/y	EPA emission factors (e.g., AP-42)
Volatile Organic Compounds (VOC):	0.052	tons/y	EPA emission factors (e.g., AP-42)

Subject Item Comments

Tuesday, March 21, 2017

Agency ID: 856

Facility Name: Los Alamos National Laboratory

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

Submittal Status: 2016 Submittal (In Process)

Subject Item ID: EQPT-135 Designation: TA-33-G-4

Description: Caterpillar Diesel Generator TA-33, TA-36, TA-39

Type: Internal combustion engine SCC: Internal Combustion Engines,

Industrial, Natural Gas, 4-cycle

Rich Burn

GHG Reporting: Reports GHG to EPA

Supplemental Parameters

	Amount	Unit of Measure
Fuel Type:	Diesel	
Input Materials Processed:	Diesel (INPUT)	
Materials Consumed:	79.0	gal
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:	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:	0.014	tons/y	Design calculation
Nitrogen Dioxide:	0.023	tons/y	Design calculation
Particulate Matter (10 microns or less):	0.002	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (total suspended):	0.002	tons/y	EPA emission factors (e.g., AP-42)
Sulfur Dioxide:	0.002	tons/y	EPA emission factors (e.g., AP-42)
Volatile Organic Compounds (VOC):	0.002	tons/y	EPA emission factors (e.g., AP-42)

Subject Item Comments

Tuesday, March 21, 2017

Agency ID: 856

Facility Name: Los Alamos National Laboratory

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

Submittal Status: 2016 Submittal (In Process)

Subject Item ID: EQPT-143

Designation: TA-55-GEN-3

Description: CI-RICE Stationary Generator - Caterpillar 1335 hp

Type: Internal combustion engine SCC: Internal Combustion Engines,

Industrial, Natural Gas,

Reciprocating

GHG Reporting: Reports GHG to EPA

Supplemental Parameters

Operating Detail

	Value
Operating Time in Hours per Day:	8
Operating Time in Days per Week:	5
Operating Time in Weeks per Year:	20
Operating Time in Hours per Year:	20
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:	0.048	tons/y	EPA emission factors (e.g., AP-42)
Nitrogen Dioxide:	0.219	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (10 microns or less):	0.007	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (total suspended):	0.007	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):	0.008	tons/y	EPA emission factors (e.g., AP-42)

Subject Item Comments

Tuesday, March 21, 2017

Agency ID: 856

Facility Name: Los Alamos National Laboratory

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

Submittal Status: 2016 Submittal (In Process)

Subject Item ID: EQPT-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

Operating Detail

	Value
Operating Time in Hours per Day:	2
Operating Time in Days per Week:	2
Operating Time in Weeks per Year:	8
Operating Time in Hours per Year:	16
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:	0.016	tons/y	EPA emission factors (e.g., AP-42)
Nitrogen Dioxide:	0.164	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (10 microns or less):	0.005	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (total suspended):	0.005	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):	0.012	tons/y	EPA emission factors (e.g., AP-42)

Subject Item Comments

Tuesday, March 21, 2017

Agency ID: 856

Facility Name: Los Alamos National Laboratory

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

Submittal Status: 2016 Submittal (In Process)

Subject Item ID: EQPT-147

Designation: TA-48-GEN-1

Description: Cummins Diesel Powered Generator and Engine

Type: Internal combustion engine SCC: Internal Combustion Engines,

Industrial, Natural Gas,

Reciprocating

GHG Reporting: Reports GHG to EPA

Supplemental Parameters		A CONTRACTOR	
		Amount	Unit of Measure
	Fuel Type:	Diesel	
Materials	Consumed:	0.0	gal
Fuel Hea	ting Value:	138.0	MM BTU/M gal
Operating Detail			
			Value
	Opera	ating 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:		
	Percent of Operation During Winter:		
	Percent	of Operation During Spring:	0
Percent of Operation During Summer:			0
	Perce	ent of Operation During Fall:	0
Actual Pollutants			
Pollutant	Amount	Unit of Measure	Calculation Method
Subject Item Comments			

Print

Tuesday, March 21, 2017

Agency ID: 856

Facility Name: Los Alamos National Laboratory

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

Submittal Status: 2016 Submittal (In Process)

Subject Item ID: EQPT-153

Designation: RLUOB-GEN 2

Description: Cummins Diesel Powered Generator and Engine - CMRR

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:	2797.2	gal	
Fuel Heating Value:	138.0	MM BTU/M 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
Percent of Operation During Summer:	25
Percent of Operation During Fall:	25

Actual Pollutants

Pollutant	Amount	Unit of Measure	Calculation Method
Carbon Monoxide:	0.562	tons/y	EPA emission factors (e.g., AP-42)
Nitrogen Dioxide:	0.453	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (10 microns or less):	0.022	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (total suspended):	0.027	tons/y	EPA emission factors (e.g., AP-42)
Sulfur Dioxide:	0.012	tons/y	EPA emission factors (e.g., AP-42)
Volatile Organic Compounds (VOC):	0.064	tons/y	EPA emission factors (e.g., AP-42)

Subject Item Comments

Tuesday, March 21, 2017

Agency ID: 856

Facility Name: Los Alamos National Laboratory

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

Submittal Status: 2016 Submittal (In Process)

Subject Item ID: EQPT-154

Designation: RLUOB-GEN 3

Description: Cummins Diesel Powered Generator and Engine - CMRR

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:	2413.88	gal
Fuel Heating Value:	138.0	MM BTU/M 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
Percent of Operation During Summer:	25
Percent of Operation During Fall:	25

Actual Pollutants

Pollutant	Amount	Unit of Measure	Calculation Method
Carbon Monoxide:	0.485	tons/y	EPA emission factors (e.g., AP-42)
Nitrogen Dioxide:	0.391	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (10 microns or less):	0.019	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (total suspended):	0.023	tons/y	EPA emission factors (e.g., AP-42)
Sulfur Dioxide:	0.01	tons/y	EPA emission factors (e.g., AP-42)
Volatile Organic Compounds (VOC):	0.055	tons/y	EPA emission factors (e.g., AP-42)

Subject Item Comments

Tuesday, March 21, 2017

Agency ID: 856

Facility Name: Los Alamos National Laboratory

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

Submittal Status: 2016 Submittal (In Process)

Subject Item ID: EQPT-155 **Designation: TA-55-GEN-2**

Description: CI-RICE Stationary Generator - Whisper Watt 40.2 hp

Type: Internal combustion engine SCC: Internal Combustion Engines, Industrial, Natural Gas,

Reciprocating

GHG Reporting: Reports GHG to EPA

Supplemental Parameters

Operating Detail

	Value
Operating Time in Hours per Day:	1
Operating Time in Days per Week:	1
Operating Time in Weeks per Year:	1
Operating Time in Hours per Year:	1
Percent of Operation During Winter:	0
Percent of Operation During Spring:	100
Percent of Operation During Summer:	0
Percent of Operation During Fall:	0

Actual Pollutants

Pollutant	Amount	of Measure	Calculation Method
Carbon Monoxide:	0.0	tons/y	EPA emission factors (e.g., AP-42)
Nitrogen Dioxide:	0.001	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

Tuesday, March 21, 2017

Agency ID: 856

Facility Name: Los Alamos National Laboratory

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

Submittal Status: 2016 Submittal (In Process)

Subject Item ID: EQPT-156 **Designation:** TA-55-GEN-1

Description: CI-RICE Stationary Generator - Whisper Watt 40.2 hp

Type: Internal combustion engine SCC: Internal Combustion Engines, Industrial, Natural Gas,

Reciprocating

GHG Reporting: Reports GHG to EPA

Supplemental Parameters

Operating Detail

	Value
Operating Time in Hours per Day:	1
Operating Time in Days per Week:	1
Operating Time in Weeks per Year:	1
Operating Time in Hours per Year:	1
Percent of Operation During Winter:	0
Percent of Operation During Spring:	100
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

Tuesday, March 21, 2017

Agency ID: 856

Facility Name: Los Alamos National Laboratory

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

Submittal Status: 2016 Submittal (In Process)

Subject Item ID: EQPT-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
Percent of Operation During Summer:	25
Percent of Operation During Fall:	25

Actual Pollutants

Unit Calculation **Pollutant Amount** of Method Measure

TCE; (Trichloroethylene); (Trichloroethene): 0.01 Material balance tons/y

Subject Item Comments

Tuesday, March 21, 2017

Agency ID: 856

Facility Name: Los Alamos National Laboratory

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

Submittal Status: 2016 Submittal (In Process)

Subject Item ID: ACT -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
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
Acetaldehyde; (Ethyl aldehyde):	0.002	tons/y	Material balance
Acetonitrile; (Methyl cyanide):	0.188	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:	0.004	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:	0.072	tons/y	Material balance
Benzyl Chloride:	0.0	tons/y	Material balance
Beryllium Compounds:	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:	0.074	tons/y	Material balance
Carbon Disulfide:	0.002	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:	0.007	tons/y	Material balance
Chloroacetic Acid:	0.0	tons/y	Material balance
Chlorobenzene(Phenyl Chloride):	0.0	tons/y	Material balance
Chloroform; (Trichloromethane):	0.11	tons/y	Material balance
Chromium:	0.0	tons/y	Material balance
Chromium VI compounds:	0.004	tons/y	Material balance
Cobalt Compounds:	0.044	tons/y	Material balance
Cresol(m-); (Methylphenol, 3-):	0.0	tons/y	Material balance
Cumene:	0.0	tons/y	Material balance
Cyanide compounds:	0.003	tons/y	Material balance
Dibutylphthalate; (Di-n-butyl phthalate):	0.001	tons/y	Material balance
Dichloroethane (1,2-); (EDC); (Ethylene dichloride):	0.011	tons/y	Material balance
Dichlorofluoromethane:	0.47	tons/y	Material balance
Diethanolamine:	0.001	tons/y	Material balance
Dimethyl Sulfate:	0.0	tons/y	Material balance
Dimethyl formamide:	0.114	tons/y	Material balance
Dimethylhydrazine(1,1-):	0.001	tons/y	Material balance
Dioxane(1,4-) (1,4-Diethyleneoxide):	0.008	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
Ethylbenzene:	0.0	tons/y	Material balance
Ethylene Glycol:	1.084	tons/y	Material balance
Ethylene dibromide; (EDB); (1.2-Dibromoethane):	0.0	tons/y	Material balance
Formaldehyde:	0.002	tons/y	Material balance
Glycol Ethers:	1.121	tons/y	Material balance
Hexachlorocyclopentadiene:	0.0	tons/y	Material balance
Hexamethylphosphoramide:	0.0	tons/y	Material balance
Hexane:	0.249	tons/y	Material balance
Hydrazine:	0.001	tons/y	Material balance
Hydrochloric acid (HCl):	1.215	tons/y	Material balance
Hydrofluoric Acid; (Hydrogen fluoride):	0.168	tons/y	Material balance
Hydroquinone:	0.054	tons/y	Material balance
Iodomethane (Methyl iodide):	0.001	tons/y	Material balance
Lead Compounds:	0.002	tons/y	Material balance
Maleic anhydride:	0.002	tons/y	Material balance
Manganese:	0.0	tons/y	Material balance
Manganese compounds:	0.003		Material balance
Mercury compounds:	0.003	tons/y	Material balance
		tons/y	Material balance
Methyl Ethyl Ketener (MEK) (2-Putenere)	0.705 0.0	tons/y	Material balance
Methyl Ethyl Ketone; (MEK); (2-Butanone):	0.001	tons/y	
Methyl hypmida: (Promomethone)		tons/y	Material balance
Methyl shloride: (Chloremethane):	0.0	tons/y	Material balance
Methyl chloride; (Chloromethane):	0.01	tons/y	Material balance
Methyl isobutyl ketone; (Hexone); (4-Methyl-2-pentanone):	0.0	tons/y	Material balance

3/21/2017 11:10 AM

Methyl tert butyl ether:	0.016	tons/y	Material balance
Methylene chloride; (Dichloromethane):	0.0	tons/y	Material balance
Methylenebiphenyl isocyanate; (MDI); (Diphenylmethane diisocyanate):	0.068	tons/y	Material balance
Naphthalene:	0.0	tons/y	Material balance
Nickel:	0.0	tons/y	Material balance
Nickel compounds:	0.003	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):	0.01	tons/y	Material balance
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:	0.004	tons/y	Material balance
Propylene Dichloride (1,2-Dichloropropane):	0.004	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:	0.001	tons/y	Material balance
TCE; (Trichloroethylene); (Trichloroethene):	0.009	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):	0.492	tons/y	Material balance
Total HAP:	0.0	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:	0.005	tons/y	Material balance
Trimethylpentane(2,2,4-):	0.001	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):	0.0	tons/y	Material balance
Xylene(m-); (1,3-Dimethylbenzene); (meta-Xylene):	0.001	tons/y	Material balance
Xylene(o-); (1,2-Dimethylbenzene); (ortho-Xylene):	0.002	tons/y	Material balance
Xylene(p-); (1,4-Dimethylbenzene); (para-Xylene):	0.0	tons/y	Material balance
Xylenes (total); (Xylol):	0.089	tons/y	Material balance
bis(2-ethylhexyl) phthalate; (Di-2-ethylhexyl phthalate); (DEHP):	0.0	tons/y	Material balance
Subject Item Comments	100		

Subject Item Comments

Tuesday, March 21, 2017

Agency ID: 856

Facility Name: Los Alamos National Laboratory

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

Submittal Status: 2016 Submittal (In Process)

Subject Item ID: ACT -42

Designation: RLUOB-CHEM

Chemical Usage, Bldg.

Description: TA-55-400 (lab portion of RLUOB

Bldg.)

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
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	ollutant Amount		Calculation Method	
Total HAP:	0.003	tons/y	Material balance	
Volatile Organic Compounds (VOC):	0.0	tons/y	Material balance	

Subject Item Comments

Print

Tuesday, March 21, 2017

Agency ID: 856

Facility Name: Los Alamos National Laboratory

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

Submittal Status: 2016 Submittal (In Process)

Subject Item ID: EQPT-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	
Percent of Operation During Summer:	25	
Percent of Operation During Fall:	25	

Actual Pollutants

Pollutant	Amount	Unit of Measure	Calculation Method
Particulate Matter (10 microns or less):	0.29	tons/y	Manufacturer Specification
Particulate Matter (2.5 microns or less):	0.19	tons/y	Manufacturer Specification
Particulate Matter (total suspended):	0.32	tons/y	Manufacturer Specification

Subject Item Comments

Tuesday, March 21, 2017

Agency ID: 856

Facility Name: Los Alamos National Laboratory

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

Submittal Status: 2016 Submittal (In Process)

Subject Item ID: EQPT-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:	63.97	MM SCF
Fuel Heating Value:	1020.0	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:	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
Percent of Operation During Summer:	25
Percent of Operation During Fall:	25

Actual Pollutants

Pollutant	Amount	Unit of Measure	Calculation Method
Acetaldehyde; (Ethyl aldehyde):	0.001	tons/y	EPA emission factors (e.g., AP-42)
Carbon Monoxide:	0.336	tons/y	EPA emission factors (e.g., AP-42)
Copper:	0.002	tons/y	EPA emission factors (e.g., AP-42)
Ethylbenzene:	0.001	tons/y	EPA emission factors (e.g., AP-42)
Formaldehyde:	0.023	tons/y	EPA emission factors (e.g., AP-42)
Lead:	0.0	tons/y	EPA emission factors (e.g., AP-42)
Manganese:	0.003	tons/y	EPA emission factors (e.g., AP-42)
Nickel:	0.004	tons/y	EPA emission factors (e.g., AP-42)
Nitrogen Dioxide:	1.615	tons/v	FPA emission factors (e.g., AP-42)

Particulate Matter (10 microns or less):	0.218	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (2.5 microns or less):	0.218	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (total suspended):	0.218	tons/y	EPA emission factors (e.g., AP-42)
Propylene oxide:	0.001	tons/y	EPA emission factors (e.g., AP-42)
Sulfur Dioxide:	0.112	tons/y	EPA emission factors (e.g., AP-42)
Toluene; (Methyl benzene):	0.004	tons/y	EPA emission factors (e.g., AP-42)
Volatile Organic Compounds (VOC):	0.07	tons/y	EPA emission factors (e.g., AP-42)
Xylenes (total); (Xylol):	0.002	tons/y	EPA emission factors (e.g., AP-42)

Subject Item Comments