

memorandum

Environmental Protection & Compliance Division Environmental Compliance Programs (EPC-CP) To/MS: 2015 Emissions Inventory File

From/MS: Steven L. Story, EPC-CP, (E-File)

Phone/Fax: 5-2169 LA-UR: 16-21762

Symbol: EPC-DO-16-072

Date: MAR 2 8 2016

Subject: 2015 Emissions Inventory Electronic Submittal

Los Alamos National Laboratory (LANL) submitted their 2015 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 25, 2016, 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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Enclosure 1

2015 Emissions Inventory Report

EPC-DO-16-071

LA-UR-16-21762

Electronic Submittal

MAR 2 8 2016

Monday, March 14, 2016

Agency ID: 856

Facility Name: Los Alamos National Laboratory

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

Submittal Status: 2015 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:	1.435	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	
		No. of the last of	

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

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Pollutant	Amount	Unit of Measure	Calculation Method
Carbon Monoxide:	0.102	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:	0.003	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):	0.002	tons/y	Manufacturer Specification
Sulfur Dioxide:	0.001	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

Monday, March 14, 2016

Agency ID: 856

Facility Name: Los Alamos National Laboratory

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

Submittal Status: 2015 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

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	
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

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Monday, March 14, 2016

Agency ID: 856

Facility Name: Los Alamos National Laboratory

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

Submittal Status: 2015 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	Sample testing
Particulate Matter (total suspended):	0.0	tons/y	Sample testing
Subject Item Comments		The Water but	A PERSONAL PROPERTY OF THE PERSONAL PROPERTY O

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Monday, March 14, 2016

Agency ID: 856

Facility Name: Los Alamos National Laboratory

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

Submittal Status: 2015 Submittal (In Process)

Subject Item ID: ACT -6

Designation: TA-55-PF4 (a)

Beryllium Activity-Plutonium

escription: 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

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

Percent of Operation During Summer: 25

Percent of Operation During Fall: 25

Actual Pollutants

Pollutant Amount of Method

Unit

Calculation

Method

Beryllium: 0.0

tons/y

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

Subject Item Comments

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Monday, March 14, 2016

Agency ID: 856

Facility Name: Los Alamos National Laboratory

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

Submittal Status: 2015 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

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

Actual Pollutants

Unit Calculation **Pollutant Amount** of Method Measure

Beryllium:

0.0

tons/y

Design calculation

Subject Item Comments

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Monday, March 14, 2016

Agency ID: 856

Facility Name: Los Alamos National Laboratory

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

Submittal Status: 2015 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:	10.484	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:	0.44	tons/y	EPA emission factors (e.g., AP-42)
Formaldehyde:	0.0	tons/y	EPA emission factors (e.g., AP-42)
Hexane:	0.009	tons/y	EPA emission factors (e.g., AP-42)
Nitrogen Dioxide:	0.524	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (10 microns or less):	0.04	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (2.5 microns or less):	0.04	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (total suspended):	0.04	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):	0.029	tons/y	EPA emission factors (e.g., AP-42)

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Facility Name: Los Alamos National Laboratory

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

Submittal Status: 2015 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

Fuel Type: Natural Gas	
Toward Materials Business de National Cos (TNDUT)	
Input Materials Processed: Natural Gas (INPUT)	
Materials Consumed: 10.484 MM S	SCF
Fuel Heating Value: 1021.0 MM BTU/I	MM SCF
Percent Sulfur of Fuel: 0.001 percent	ent
Percent Ash of Fuel: 0.0 percent	ent
Percent Carbon Content: 65.0 percent	ent

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	of Measure	Calculation Method
Carbon Monoxide:	0.44	tons/y	EPA emission factors (e.g., AP-42)
Formaldehyde:	0.0	tons/y	EPA emission factors (e.g., AP-42)
Hexane:	0.009	tons/y	EPA emission factors (e.g., AP-42)
Nitrogen Dioxide:	0.524	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (10 microns or less):	0.04	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (2.5 microns or less):	0.04	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (total suspended):	0.04	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):	0.029	tons/y	EPA emission factors (e.g., AP-42)

Monday, March 14, 2016

Agency ID: 856

Facility Name: Los Alamos National Laboratory

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

Submittal Status: 2015 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:	43.538	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:	0.871	tons/y	EPA emission factors (e.g., AP-42)
Formaldehyde:	0.002	tons/y	EPA emission factors (e.g., AP-42)
Hexane:	0.039	tons/y	EPA emission factors (e.g., AP-42)
Nitrogen Dioxide:	1.263	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (10 microns or less):	0.165	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (2.5 microns or less):	0.165	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (total suspended):	0.165	tons/y	EPA emission factors (e.g., AP-42)
Sulfur Dioxide:	0.013	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):** 0.12 tons/y EPA emission factors (e.g., AP-42)

Subject Item Comments

Monday, March 14, 2016

Agency ID: 856

Facility Name: Los Alamos National Laboratory

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

Submittal Status: 2015 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:	267.609	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
24
7
52
8760
25
25
25
25

Pollutant	Amount	Unit of Measure	Calculation Method
Carbon Monoxide:	5.352	tons/y	EPA emission factors (e.g., AP-42)
Formaldehyde:	0.01	tons/y	EPA emission factors (e.g., AP-42)
Hexane:	0.241	tons/y	EPA emission factors (e.g., AP-42)
Nitrogen Dioxide:	7.761	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (10 microns or less):	1.017	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (2.5 microns or less):	1.017	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (total suspended):	1.017	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): 0.736 tons/y EPA emission factors (e.g., AP-42)

Subject Item Comments

Monday, March 14, 2016

Agency ID: 856

Facility Name: Los Alamos National Laboratory

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

Submittal Status: 2015 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

7011-0-1-0	Amount	Unit of Measure
Fuel Type:	Natural Gas	
Input Materials Processed:	Natural Gas (INPUT)	
Materials Consumed:	65.871	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:	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

Pollutant	Amount	Unit of Measure	Calculation Method
Carbon Monoxide:	1.317	tons/y	EPA emission factors (e.g., AP-42)
Formaldehyde:	0.002	tons/y	EPA emission factors (e.g., AP-42)
Hexane:	0.059	tons/y	EPA emission factors (e.g., AP-42)
Nitrogen Dioxide:	1.91	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (10 microns or less):	0.25	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (2.5 microns or less):	0.25	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (total suspended):	0.25	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): 0.181 tons/y EPA emission factors (e.g., AP-42)

Subject Item Comments

Monday, March 14, 2016

Agency ID: 856

Facility Name: Los Alamos National Laboratory

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

Submittal Status: 2015 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:	6.463	MM SCF
Fuel Heating Value:	1020.0	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:	0.123	tons/y	EPA emission factors (e.g., AP-42)
Formaldehyde:	0.0	tons/y	EPA emission factors (e.g., AP-42)
Hexane:	0.006	tons/y	EPA emission factors (e.g., AP-42)
Nitrogen Dioxide:	0.446	tons/y	Actual stack test
Particulate Matter (10 microns or less):	0.046	tons/y	Manufacturer Specification
Particulate Matter (2.5 microns or less):	0.046	tons/y	Manufacturer Specification
Particulate Matter (total suspended):	0.046	tons/y	Manufacturer Specification
Sulfur Dioxide:	0.002	tons/y	EPA emission factors (e.g., AP-42)
Volatile Organic Compounds (VOC):	0.019	tons/y	Manufacturer Specification

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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: 2015 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:	16.263	MM SCF	
Fuel Heating Value:	1020.0	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:	0.311	tons/y	Manufacturer Specification
	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	Manufacturer Specification
	Nitrogen Dioxide:	1.122	tons/y	Actual stack test
Particulate Matter (10 microns or less):	0.115	tons/y	Manufacturer Specification
Particulate Matter (2	2.5 microns or less):	0.115	tons/y	Manufacturer Specification
Particulate Matte	r (total suspended):	otal suspended): 0.115 tons/y Manufacturer Specification		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

Monday, March 14, 2016

Agency ID: 856

Facility Name: Los Alamos National Laboratory

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

Submittal Status: 2015 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:	9.358	MM SCF
Fuel Heating Value:	1020.0	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

Pollutant	Amount	Unit of Measure	Calculation Method
Carbon Monoxide:	0.173	tons/y	Design calculation
Hexane:	0.008	tons/y	Design calculation
Lead:	0.0	tons/y	Design calculation
Nitrogen Dioxide:	0.173	tons/y	Design calculation
Particulate Matter (10 microns or less):	0.036	tons/y	Design calculation
Particulate Matter (2.5 microns or less):	0.036	tons/y	Design calculation
Particulate Matter (total suspended):	0.036	tons/y	Design calculation
Sulfur Dioxide:	0.003	tons/y	Design calculation
Volatile Organic Compounds (VOC):	0.026	tons/y	Design calculation

Monday, March 14, 2016

Agency ID: 856

Facility Name: Los Alamos National Laboratory

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

Submittal Status: 2015 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:	0.954	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:	0.018	tons/y	EPA emission factors (e.g., AP-42)
Hexane:	0.001	tons/y	EPA emission factors (e.g., AP-42)
Nitrogen Dioxide:	0.014	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)

Monday, March 14, 2016

Agency ID: 856

Facility Name: Los Alamos National Laboratory

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

Submittal Status: 2015 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

Ar	mount Unit of Measure	
Fuel Type: Nate	Natural Gas	
Input Materials Processed: Natural	Gas (INPUT)	
Materials Consumed:	0.954 MM SCF	
Fuel Heating Value: 1	021.0 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:	0.018	tons/y	EPA emission factors (e.g., AP-42)
Hexane:	0.001	tons/y	EPA emission factors (e.g., AP-42)
Nitrogen Dioxide:	0.014	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)

Monday, March 14, 2016

Agency ID: 856

Facility Name: Los Alamos National Laboratory

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

Submittal Status: 2015 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:	0.954	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
2.00		

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:	0.018	tons/y	EPA emission factors (e.g., AP-42)
Hexane:	0.001	tons/y	EPA emission factors (e.g., AP-42)
Nitrogen Dioxide:	0.014	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/v	EPA emission factors (e.g., AP-42)

Monday, March 14, 2016

Agency ID: 856

Facility Name: Los Alamos National Laboratory

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

Submittal Status: 2015 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.

Monday, March 14, 2016

Agency ID: 856

Facility Name: Los Alamos National Laboratory

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

Submittal Status: 2015 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

Monday, March 14, 2016

Agency ID: 856

Facility Name: Los Alamos National Laboratory

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

Submittal Status: 2015 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:	9.36	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:	0.173	tons/y	Design calculation
Hexane:	0.008	tons/y	Design calculation
Lead:	0.0	tons/y	Design calculation
Nitrogen Dioxide:	0.173	tons/y	Design calculation
Particulate Matter (10 microns or less):	0.036	tons/y	Design calculation
Particulate Matter (2.5 microns or less):	0.036	tons/y	Design calculation
Particulate Matter (total suspended):	0.036	tons/y	Design calculation
Sulfur Dioxide:	0.003	tons/y	Design calculation
Volatile Organic Compounds (VOC):	0.026	tons/y	Design calculation

Monday, March 14, 2016

Agency ID: 856

Facility Name: Los Alamos National Laboratory

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

Submittal Status: 2015 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)

Monday, March 14, 2016

Agency ID: 856

Facility Name: Los Alamos National Laboratory

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

Submittal Status: 2015 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

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	

Males

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)

Monday, March 14, 2016

Agency ID: 856

Facility Name: Los Alamos National Laboratory

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

Submittal Status: 2015 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

Monday, March 14, 2016

Agency ID: 856

Facility Name: Los Alamos National Laboratory

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

Submittal Status: 2015 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 power plant boilers for both natural gas an 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.

Monday, March 14, 2016

Agency ID: 856

Facility Name: Los Alamos National Laboratory

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

Submittal Status: 2015 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

Monday, March 14, 2016

Agency ID: 856

Facility Name: Los Alamos National Laboratory

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

Submittal Status: 2015 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

Monday, March 14, 2016

Agency ID: 856

Facility Name: Los Alamos National Laboratory

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

Submittal Status: 2015 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

	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

Monday, March 14, 2016

Agency ID: 856

Facility Name: Los Alamos National Laboratory

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

Submittal Status: 2015 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:	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

Monday, March 14, 2016

Agency ID: 856

Facility Name: Los Alamos National Laboratory

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

Submittal Status: 2015 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	
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Subject Item Comments

Monday, March 14, 2016

Agency ID: 856

Facility Name: Los Alamos National Laboratory

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

Submittal Status: 2015 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	Unit of Measure	Calculation Method
Carbon Monoxide:	1.2	tons/y	EPA emission factors (e.g., AP-42)
Nitrogen Dioxide:	4.71	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (10 microns or less):	0.24	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (total suspended):	0.24	tons/y	EPA emission factors (e.g., AP-42)
Sulfur Dioxide:	0.2	tons/y	EPA emission factors (e.g., AP-42)
Volatile Organic Compounds (VOC):	0.24	tons/y	EPA emission factors (e.g., AP-42)

Subject Item Comments

Monday, March 14, 2016

Agency ID: 856

Facility Name: Los Alamos National Laboratory

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

Submittal Status: 2015 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:	42.33	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:	2
Operating Time in Weeks per Year:	10
Operating Time in Hours per Year:	13
Percent of Operation During Winter:	50
Percent of Operation During Spring:	50
Percent of Operation During Summer:	0
Percent of Operation During Fall:	0

Actual Pollutants

Pollutant	Amount	of Measure	Calculation Method
Carbon Monoxide:	0.003	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)

Subject Item Comments

Monday, March 14, 2016

Agency ID: 856

Facility Name: Los Alamos National Laboratory

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

Submittal Status: 2015 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:	1.53	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:	2
Operating Time in Weeks per Year:	10
Operating Time in Hours per Year:	17
Percent of Operation During Winter:	5
Percent of Operation During Spring:	5
Percent of Operation During Summer:	45
Percent of Operation During Fall:	45

Actual Pollutants

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

Monday, March 14, 2016

Agency ID: 856

Facility Name: Los Alamos National Laboratory

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

Submittal Status: 2015 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:	2455.32	gal	
Fuel Heating Value:	138.0	MM BTU/M gal	

Value

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:	0.493	tons/y	EPA emission factors (e.g., AP-42)
Nitrogen Dioxide:	0.398	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):	0.056	tons/y	EPA emission factors (e.g., AP-42)

Subject Item Comments

Monday, March 14, 2016

Agency ID: 856

Facility Name: Los Alamos National Laboratory

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

Submittal Status: 2015 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:	4866.4	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:	300
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	of Measure	Calculation Method
Carbon Monoxide:	0.87	tons/y	Design calculation
Nitrogen Dioxide:	1.44	tons/y	Design calculation
Particulate Matter (10 microns or less):	0.1	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (total suspended):	0.1	tons/y	EPA emission factors (e.g., AP-42)
Sulfur Dioxide:	0.1	tons/y	EPA emission factors (e.g., AP-42)
Volatile Organic Compounds (VOC):	0.12	tons/y	EPA emission factors (e.g., AP-42)

Subject Item Comments

Monday, March 14, 2016

Agency ID: 856

Facility Name: Los Alamos National Laboratory

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

Submittal Status: 2015 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:	0.076	tons/y	EPA emission factors (e.g., AP-42)
Nitrogen Dioxide:	0.347	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (10 microns or less):	0.011	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (total suspended):	0.011	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):	0.013	tons/y	EPA emission factors (e.g., AP-42)

Subject Item Comments

Monday, March 14, 2016

Agency ID: 856

Facility Name: Los Alamos National Laboratory

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

Submittal Status: 2015 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:	1
Operating Time in Days per Week:	1
Operating Time in Weeks per Year:	1
Operating Time in Hours per Year:	3
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:	0.003	tons/y	EPA emission factors (e.g., AP-42)
Nitrogen Dioxide:	0.025	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (10 microns or less):	0.001	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):	0.001	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):	0.002	tons/y	EPA emission factors (e.g., AP-42)

Subject Item Comments

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Monday, March 14, 2016

Agency ID: 856

Facility Name: Los Alamos National Laboratory

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

Submittal Status: 2015 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 description of the St. The St.	A POST OF THE SECOND SECOND	
	Amount	Unit of Measure	
Fuel Typ	e: Diesel		
Materials Consume	d: 0.0	gal	
Fuel Heating Valu	e: 138.0	MM BTU/M gal	
Operating Detail		新,以及新国国家。	
		Value	
	0		
	Operating Time in Days per Week		
	perating Time in Weeks per Year:	0	
	Operating Time in Hours per Year:	0	
Pe	rcent of Operation During Winter:	0	
Pe	rcent of Operation During Spring:	0	
Percent of Operation During Summer: Percent of Operation During Fall:		0	
	0		
Actual Pollutants			
Pollutant Amou	Unit nt of Measure	Calculation Method	
Subject Item Comments	AND PORT OF THE PARTY.		

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Monday, March 14, 2016

Agency ID: 856

Facility Name: Los Alamos National Laboratory

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

Submittal Status: 2015 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:	2237.76	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:	0.45	tons/y	EPA emission factors (e.g., AP-42)
Nitrogen Dioxide:	0.363	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):	0.021	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):	0.051	tons/y	EPA emission factors (e.g., AP-42)

Subject Item Comments

Monday, March 14, 2016

Agency ID: 856

Facility Name: Los Alamos National Laboratory

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

Submittal Status: 2015 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:	2279.2	gal
Fuel Heating Value:	138.0	MM BTU/M gal
The state of the s		

Value

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: 0.458 tons/y EPA emission factors (e.g., AP-42)
Nilhara Biralda O 200 I and EDA anticia Catan (and AD 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

Monday, March 14, 2016

Agency ID: 856

Facility Name: Los Alamos National Laboratory

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

Submittal Status: 2015 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	超過至,巴黎东岛			
Operating Detail			A PROPERTY.	
			Value	
	Opera	ting Time in Hours per Day:	0	
	Operat	ing Time in Days per Week:	0	
	Operation	ng Time in Weeks per Year:	0	
	Operat	ing Time in Hours per Year:	0	
	Percent of	of Operation During Winter:	0	
	Percent o	of Operation During Spring:	0	
	Percent of	Operation During Summer:	0	
	Perce	nt of Operation During Fall:	0	
Actual Pollutants	Salkin Salkin King	(国) (15 图) · 图 (2 图) · 数	TAY SOURCE SAN	有经验,这种概念
Pollutant	Amount	Unit of Measure	Calculation Method	
Subject Item Comments		学用ACCION EFFOR	62200	

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Monday, March 14, 2016

Agency ID: 856

Facility Name: Los Alamos National Laboratory

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

Submittal Status: 2015 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:	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

Monday, March 14, 2016

Agency ID: 856

Facility Name: Los Alamos National Laboratory

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

Submittal Status: 2015 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): 0.006 Material balance tons/y

Subject Item Comments

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Monday, March 14, 2016

Agency ID: 856

Facility Name: Los Alamos National Laboratory

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

Submittal Status: 2015 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):	0.0	tons/y	Material balance
Acetonitrile; (Methyl cyanide):	0.141	tons/y	Material balance
Acetophenone:	0.0	tons/y	Material balance
Acrylamide:	0.001	tons/y	Material balance
Acrylic acid:	0.001	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:	0.001	tons/y	Material balance
Benzene:	0.006	tons/y	Material balance
Benzyl Chloride:	0.0	tons/y	Material balance
Beryllium Compounds:	0.001	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:	0.001	tons/y	Material balance

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Material balance
                Carbon tetrachloride; (Tetrachoromethane):
                                                                0.002
                                                                         tons/y
                                            Carbonyl sulfide:
                                                                 0.0
                                                                         tons/y
                                                                                 Material balance
                                    Catechol (Pyrocatechol):
                                                                 0.0
                                                                         tons/y
                                                                                 Material balance
                                                     Chlorine:
                                                                0.015
                                                                         tons/y
                                                                                 Material balance
                                                                 0.0
                                                                                 Material balance
                                           Chloroacetic Acid:
                                                                         tons/y
                                                                0.001
                                                                                 Material balance
                           Chlorobenzene(Phenyl Chloride):
                                                                         tons/y
                            Chloroform; (Trichloromethane):
                                                                0.141
                                                                         tons/y
                                                                                 Material balance
                                                  Chromium:
                                                                 0.0
                                                                         tons/y
                                                                                 Material balance
                                   Chromium VI compounds:
                                                                0.003
                                                                         tons/y
                                                                                 Material balance
                                                                                 Material balance
                                          Cobalt Compounds:
                                                                0.024
                                                                         tons/y
                             Cresol(m-); (Methylphenol, 3-):
                                                                 0.0
                                                                         tons/y
                                                                                 Material balance
                                                                 0.0
                                                                         tons/y
                                                                                 Material balance
                                                     Cumene:
                                        Cyanide compounds:
                                                                0.056
                                                                         tons/y
                                                                                 Material balance
                   Dibutylphthalate; (Di-n-butyl phthalate):
                                                                 0.0
                                                                                 Material balance
                                                                         tons/y
       Dichloroethane (1,2-); (EDC); (Ethylene dichloride):
                                                                0.005
                                                                         tons/y
                                                                                 Material balance
                                             Diethanolamine:
                                                                 0.0
                                                                         tons/y
                                                                                 Material balance
                                            Dimethyl Sulfate:
                                                                 0.0
                                                                         tons/y
                                                                                 Material balance
                                                                 0.02
                                                                                 Material balance
                                        Dimethyl formamide:
                                                                         tons/y
                                   Dimethylhydrazine(1,1-):
                                                                 0.0
                                                                         tons/y
                                                                                 Material balance
                                                                0.004
                                                                                 Material balance
                      Dioxane(1,4-) (1,4-Diethyleneoxide):
                                                                         tons/y
            Epichlorohydrin; (1-Chloro-2,3-epoxypropane):
                                                                 0.0
                                                                         tons/y
                                                                                 Material balance
                                                                                 Material balance
                   Epoxybutane(1,2-) (1,2-Butylene oxide):
                                                                 0.0
                                                                         tons/y
                                               Ethyl Acrylate:
                                                                 0.0
                                                                         tons/y
                                                                                 Material balance
                                                                 0.0
                                                                                 Material balance
                              Ethyl chloride: (Chloroethane):
                                                                         tons/y
                                               Ethylbenzene:
                                                                0.002
                                                                         tons/y
                                                                                 Material balance
                                             Ethylene Glycol:
                                                                0.033
                                                                         tons/y
                                                                                 Material balance
         Ethylene dibromide; (EDB); (1.2-Dibromoethane):
                                                                0.003
                                                                         tons/y
                                                                                 Material balance
                                                                0.004
                                                                                 Material balance
                                              Formaldehyde:
                                                                         tons/y
                                               Glycol Ethers:
                                                                1.407
                                                                         tons/y
                                                                                 Material balance
                                                                 0.0
                                                                                 Material balance
                                Hexachlorocyclopentadiene:
                                                                         tons/y
                                Hexamethylphosphoramide:
                                                                 0.0
                                                                         tons/y
                                                                                 Material balance
                                                                0.204
                                                                                 Material balance
                                                     Hexane:
                                                                         tons/y
                                                                 0.0
                                                                                 Material balance
                                                   Hydrazine:
                                                                         tons/y
                                     Hydrochloric acid (HCl):
                                                                1.176
                                                                         tons/y
                                                                                 Material balance
                     Hydrofluoric Acid; (Hydrogen fluoride):
                                                                0.007
                                                                         tons/y
                                                                                 Material balance
                                              Hydroquinone:
                                                                0.002
                                                                         tons/y
                                                                                 Material balance
                              Iodomethane (Methyl iodide):
                                                                                 Material balance
                                                                0.001
                                                                         tons/y
                                                                0.012
                                           Lead Compounds:
                                                                         tons/y
                                                                                 Material balance
                                           Maleic anhydride:
                                                                 0.0
                                                                         tons/y
                                                                                 Material balance
                                                                                 Material balance
                                                 Manganese:
                                                                 0.0
                                                                         tons/y
                                                                0.022
                                                                                 Material balance
                                                                         tons/y
                                     Manganese compounds:
                                        Mercury compounds:
                                                                 0.0
                                                                                 Material balance
                                                                         tons/y
                                 Methanol; (Methyl alcohol):
                                                                0.422
                                                                         tons/y
                                                                                 Material balance
                                                                                 Material balance
                 Methyl Ethyl Ketone; (MEK); (2-Butanone):
                                                                 0.0
                                                                         tons/y
                                                                                 Material balance
                                        Methyl Methacrylate:
                                                                 0.0
                                                                         tons/y
                          Methyl bromide; (Bromomethane):
                                                                 0.0
                                                                         tons/y
                                                                                 Material balance
                          Methyl chloride; (Chloromethane):
                                                                 0.0
                                                                         tons/y
                                                                                 Material balance
                                                                0.005
                                                                                 Material balance
Methyl isobutyl ketone; (Hexone); (4-Methyl-2-pentanone):
                                                                         tons/y
                                      Methyl tert butyl ether:
                                                                0.009
                                                                         tons/y
                                                                                 Material balance
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Methylene chloride; (Dichloromethane):	0.272	tons/y	Material balance
Methylenebiphenyl isocyanate; (MDI); (Diphenylmethane diisocyanate):	0.068	tons/y	Material balance
Naphthalene:	0.001	tons/y	Material balance
Nickel:	0.0	tons/y	Material balance
Nickel compounds:	0.006	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):	0.014	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:	0.001	tons/y	Material balance
Polycylic Organic Matter:	0.001	tons/y	Material balance
Propylene Dichloride (1,2-Dichloropropane):	0.0	tons/y	Material balance
Propylene oxide:	0.001	tons/y	Material balance
Selenium:	0.0	tons/y	Material balance
Selenium compounds:	0.001	tons/y	Material balance
Styrene:	0.0	tons/y	Material balance
TCE; (Trichloroethylene); (Trichloroethene):	0.003	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):	0.276	tons/y	Material balance
Total HAP:	4.41	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:	0.001	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):	0.004	tons/y	Material balance
Volatile Organic Compounds (VOC):	9.08	tons/y	Material balance
Xylene(o-); (1,2-Dimethylbenzene); (ortho-Xylene):	0.004	tons/y	Material balance
Xylene(p-); (1,4-Dimethylbenzene); (para-Xylene):	0.0	tons/y	Material balance
Xylenes (total); (Xyloi):	0.015	tons/y	Material balance
bis(2-ethylhexyl) phthalate; (Di-2-ethylhexyl phthalate); (DEHP):	0.001	tons/y	Material balance
Subject Item Comments	T. W. W. S.	7000	

Monday, March 14, 2016

Agency ID: 856

Facility Name: Los Alamos National Laboratory

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

Submittal Status: 2015 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	Amount	Unit of Measure	Calculation Method
Total HAP:	0.0	tons/y	Material balance
Volatile Organic Compounds (VOC):	0.0	tons/y	Material balance

Subject Item Comments

Print

Monday, March 14, 2016

Agency ID: 856

Facility Name: Los Alamos National Laboratory

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

Submittal Status: 2015 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):	0.06	tons/y	Manufacturer Specification
Particulate Matter (2.5 microns or less):	0.04	tons/y	Manufacturer Specification
Particulate Matter (total suspended):	0.06	tons/y	Manufacturer Specification

Subject Item Comments

Monday, March 14, 2016

Agency ID: 856

Facility Name: Los Alamos National Laboratory

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

Submittal Status: 2015 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:	49.63	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
The second secon		

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:	0.261	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:	0.018	tons/y	EPA emission factors (e.g., AP-42)
Lead:	0.0	tons/y	EPA emission factors (e.g., AP-42)
Manganese:	0.002	tons/y	EPA emission factors (e.g., AP-42)
Nickel:	0.003	tons/y	EPA emission factors (e.g., AP-42)
Nitrogen Dioxide:	1.253	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (10 microns or less):	0.169	tons/y	EPA emission factors (e.g., AP-42)

Particulate Matter (2.5 microns or less):	0.169	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (total suspended):	0.169	tons/y	EPA emission factors (e.g., AP-42)
Propylene oxide:	0.001	tons/y	EPA emission factors (e.g., AP-42)
Sulfur Dioxide:	0.087	tons/y	EPA emission factors (e.g., AP-42)
Toluene; (Methyl benzene):	0.003	tons/y	EPA emission factors (e.g., AP-42)
Volatile Organic Compounds (VOC):	0.055	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