

# LA-UR-18-22329

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Title: 2017 Emissions Inventory

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Intended for: Environmental Regulatory Document

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# memorandum

Environmental Protection & Compliance Division Los Alamos National Laboratory To/MS: 2017 Emissions Inventory File

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

From/MS: Walt Whetham, EPC-CP, MS J978

Phone: 505-665-8885 Symbol: EPC-DO: 18-126 Date: MAR 2 7 2018

**Subject: 2017 Emissions Inventory Electronic Submittal** 

Los Alamos National Laboratory (LANL) submitted their 2017 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, 2018, 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 <a href="story@lanl.gov">story@lanl.gov</a>.

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# **Enclosure 1**

2017 Emissions Inventory Report

EPC-DO: 18-126

Electronic Submittal

Date: MAR 2 7 2018



# Subject Item List

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# Facility Annual Emissions - Subject Item List

Agency ID: 856

Facility Name: Los Alamos National Security, LLC

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

Submittal Status: 2017 Submittal (In Process)

#### Subject Item/Equipment (51 Subject Items)

	Туре	ID	Designation	Description	Status	Complete
C	Federal Agency	AI -856	2195R71	Los Alamos National Security, LLC	Active 06/12/17	
O	Asphalt Drum/Burner	EQPT-116	TA-60-BDM	Asphalt Plant Dryer - Natural Gas	Active 07/19/05	<b>Z</b>
$\cap$	Beryllium Work	ACT -2	TA-35-213	Beryllium Activity-Be Target Fabrication Facility - Machining TA-35-213	Active 05/10/00	
C	Beryllium Work	ACT -3	TA-3-141	Beryllium Activity-Be Test Facility - Machining TA-3-141	Active 05/10/00	
0	Beryllium Work	ACT -6	TA-55-PF4 (a)	Beryllium Activity-Plutonium Facility Beryllium machining, weld cutting / dressing and metallography	Active 04/14/06	Z
C	Beryllium Work	ACT -41	TA-3-66	Beryllium Activity-Sigma Facility- electroplating/metallography	Active 05/24/10	V
C	Boiler	EQPT-11	TA-53-365-BHW-1	Boiler TA-53-365-BHW-1	Active 05/31/01	
C	Boiler	EQPT-12	TA-53-365-BHW-2	Boiler TA-53-365-BHW-2	Active 05/31/01	Z
C	Boiler	EQPT-24	TA-3-22-1 (gas)	Power Plant Boiler (pph, Natural Gas)	Active 03/05/09	Z
C	Boiler	EQPT-25	TA-3-22-2 (gas)	Power Plant Boiler (pph, Natural Gas)	Active 03/05/09	
C	Boiler	EQPT-26	TA-3-22-3 (gas)	Power Plant Boiler (pph, Natural Gas)	Active 03/05/09	Z
0	Boiler	EQPT-29	TA-55-6-BHW-1	Sellers Boiler TA-55-6-BHW-1	Active 12/17/01	Z
C	Boiler	EQPT-30	TA-55-6-BHW-2	Sellers Boiler TA-55-6-BHW-2	Active 12/17/01	
C	Boiler	EQPT-53	TA-16-1484-BS-2	Low NOx Boiler TA-16-1484-BS-2	Active 11/27/96	V
C	Boiler	EQPT-90	RLUOB-BHW-1 (gas)	Boiler-CMRR-BHW-1	Active 03/01/05	Z
C	Boiler	EQPT-104	RLUOB-BHW-2 (gas)	Boiler-CMRR-BHW-2	Active 03/01/05	
0	Boiler	EQPT-105	RLUOB-BHW-3 (gas)	Boiler-CMRR-BHW-3	Active 03/01/05	
C	Boiler	EQPT-106	RLUOB-BHW-4 (gas)	Boiler-CMRR-BHW-4	Active 03/01/05	
C	Boiler	EQPT-107	B-5	Boiler-CMRR	Active 03/01/05	
<u>^</u>	Boiler	EQPT-134	TA-16-1484-BS-1	Low NOx Boiler TA-16-1484-BS-1	Active 11/27/96	
O	Boiler	EQPT-137	TA-3-22-2	Power Plant Boiler (pph, No. 2 fuel oil)	Active 03/05/09	
	Boiler	EQPT-138	TA-3-22-3	Power Plant Boiler (pph, No. 2 fuel oil)	Active 03/05/09	
0	Boiler	EQPT-141	TA-3-22-1	Power Plant Boiler (pph, No. 2 fuel oil)	Active 03/05/09	

0	Boiler	EQPT-144	Boiler combined emissions	TA-16-1484-Bs-1,2; TA -53-365-BHW-1,2; TA-55-6-BHW-1,2; RLUOB-BHW-1,2,3,4	Active 03/05/09	V
C	Boiler	EQPT-149	RLUOB-BHW-1 (oil)	Boiler-CMRR-BHW-1	Active 03/01/05	V
O.	Boiler	EQPT-150	RLUOB-BHW-2 (oil)	Boiler-CMRR-BHW-2	Active 03/01/05	Z
Q:	Boiler	EQPT-151	RLUOB-BHW-3 (oil)	Boiler-CMRR-BHW-3	Active 03/01/05	V
0	Boiler	EQPT-152	RLUOB-BHW-4 (oil)	Boiler-CMRR-BHW-4	Active 03/01/05	
o.	Fugitives	RPNT-34	Facilitywide Open Burning	Fugitives - Open Burning	Active 02/27/15	V
00	Fugitives	RPNT-35	TA-60-EVAP-1	Evaporative Sprayer for basin water	Active 02/03/17	V
	Fugitives	RPNT-36	TA-60-EVAP-2	Evaporative Sprayer for basin water	Active 02/03/17	V
0	Fugitives	RPNT-37	TA-60-EVAP-3	Evaporative Sprayer for basin water	Active 02/03/17	Z
	Fugitives	RPNT-38	TA-60-EVAP-4	Evaporative Sprayer for basin water	Active 02/03/17	
9	Fugitives	RPNT-39	TA-60-EVAP-5	Evaporative Sprayer for basin water	Active 02/03/17	
0	Internal combustion engine	EQPT-96	Standby-Generators	Diesel Generators	Active 03/01/05	Z
7	Internal combustion engine	EQPT-119	TA-33-G-2	Kohler Diesel Generator TA-33, TA-36, TA-39	Active 04/22/08	V
2	Internal combustion engine	EQPT-120	TA-33-G-3	Kohler Diesel Generator TA-33, TA-36, TA-39	Active 09/18/06	Z
ે	Internal combustion engine	EQPT-128	RLUOB-GEN 1	Cummins Diesel Powered Generator and Engine - CMRR	Active 12/11/07	Z
9	Internal combustion engine	EQPT-135	TA-33-G-4	Caterpillar Diesel Generator TA-33, TA-36, TA-39	Active 04/22/08	V
3	Internal combustion engine	EQPT-143	TA-55-GEN-3	CI-RICE Stationary Generator - Caterpillar 1335 hp	Active 11/30/10	V
5	Internal combustion engine	EQPT-146	TA-33-G-1P	Cummins Portable Diesel Generator	Active 12/12/13	V
2	Internal combustion engine	EQPT-147	TA-48-GEN-1	Cummins Diesel Powered Generator and Engine	Active 02/27/15	
>	Internal combustion engine	EQPT-153	RLUOB-GEN 2	Cummins Diesel Powered Generator and Engine - CMRR	Active 12/11/07	
5	Internal combustion engine	EQPT-154	RLUOB-GEN 3	Cummins Diesel Powered Generator and Engine - CMRR	Active 12/11/07	
ž	Internal combustion engine	EQPT-155	TA-55-GEN-2	CI-RICE Stationary Generator - Whisper Watt 40.2 hp	Active 02/27/15	
5	Internal combustion engine	EQPT-156	TA-55-GEN-1	CI-RICE Stationary Generator - Whisper Watt 40.2 hp	Active 02/27/15	
7	Parts Washer	EQPT-21	TA-55-DG-1	Degreaser - Ultrasonic Cold Batch TA-55-4	Active 05/31/01	
,	Research/Testing	ACT -7	LANL-FW-CHEM	R & D Activities - Labwide (031)	Active 05/31/01	V
>	Research/Testing	ACT -42	RLUOB-CHEM	Chemical Usage, Bldg. TA-55-400 (lab portion of RLUOB Bldg.)	Active 05/31/01	
7	Shredder	EQPT-89	TA-52-11	Data Disintegrator/industrial Shredder	Active 10/22/03	V
`	Turbine	EQPT-112	TA-3-22-CT-1	Combustion Turbine	Active 07/29/06	
	an unpermitted source	The same of the same	elssions Print Expo	Total Emissions Review for Submittal		

Tuesday, March 20, 2018

Agency ID: 856

Facility Name: Los Alamos National Security, LLC

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

Submittal Status: 2017 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	<b>Unit of Measure</b>
Fuel Type:	Natural Gas	
Input Materials Processed:	Asphalt (INPUT)	
Materials Consumed:	2.27	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:	67
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:	0.155	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 20, 2018

Agency ID: 856

Facility Name: Los Alamos National Security, LLC

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

Submittal Status: 2017 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\*\*

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
Subject Item Comments			

Tuesday, March 20, 2018

Agency ID: 856

Facility Name: Los Alamos National Security, LLC

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

Submittal Status: 2017 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 20, 2018

Agency ID: 856

Facility Name: Los Alamos National Security, LLC

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

Submittal Status: 2017 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

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

Subject Item Comments

Tuesday, March 20, 2018

Agency ID: 856

Facility Name: Los Alamos National Security, LLC

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

Submittal Status: 2017 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 Processed:** 

Metal (INPUT)

Operating Detail

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

Actual Pollutants

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

Subject Item Comments

Tuesday, March 20, 2018

Agency ID: 856

Facility Name: Los Alamos National Security, LLC

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

Submittal Status: 2017 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	<b>Unit of Measure</b>
Fuel Type:	Natural Gas	
Input Materials Processed:	Natural Gas (INPUT)	
Materials Consumed:	9.502	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

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

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Pollutant	Amount	of Measure	Calculation Method
Carbon Monoxide:	0.399	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:	0.475	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (10 microns or less):	0.036	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (2.5 microns or less):	0.036	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (total suspended):	0.036	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):** 0.026

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

Subject Item Comments

Tuesday, March 20, 2018

Agency ID: 856

Facility Name: Los Alamos National Security, LLC

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

Submittal Status: 2017 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	<b>Unit of Measure</b>
Natural Gas	
Natural Gas (INPUT)	
9.502	MM SCF
1021.0	MM BTU/MM SCF
0.001	percent
0.0	percent
65.0	percent
	Natural Gas Natural Gas (INPUT) 9.502 1021.0 0.001 0.0

# 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:	0.399	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:	0.475	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (10 microns or less):	0.036	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (2.5 microns or less):	0.036	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (total suspended):	0.036	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):** 0.026

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

Subject Item Comments

Tuesday, March 20, 2018

Agency ID: 856

Facility Name: Los Alamos National Security, LLC

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

Submittal Status: 2017 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)	E .
Materials Consumed:	53.129	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
<b>Percent Carbon Content:</b>	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:	1.063	tons/y	EPA emission factors (e.g., AP-42)
Formaldehyde:	0.002	tons/y	EPA emission factors (e.g., AP-42)
Hexane:	0.048	tons/y	EPA emission factors (e.g., AP-42)
Nitrogen Dioxide:	1.541	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (10 microns or less):	0.202	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (2.5 microns or less):	0.202	tons/y	EPA emission factors (e.g., AP-42)

Particulate Matter (total suspended): 0.202 tons/y EPA emission factors (e.g., AP-42)

**Sulfur Dioxide:** 0.016 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):** 0.146 tons/y EPA emission factors (e.g., AP-42)

Subject Item Comments

Tuesday, March 20, 2018

Agency ID: 856

Facility Name: Los Alamos National Security, LLC

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

Submittal Status: 2017 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)	
<b>Materials Consumed:</b>	184.56	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
<b>Percent Carbon Content:</b>	65.0	percent

#### Operating Detail

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

Pollutant	Amount	Onit of Measure	Calculation Method
Carbon Monoxide:	3.691	tons/y	EPA emission factors (e.g., AP-42)
Formaldehyde:	0.007	tons/y	EPA emission factors (e.g., AP-42)
Hexane:	0.166	tons/y	EPA emission factors (e.g., AP-42)
Nitrogen Dioxide:	5.352	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (10 microns or less):	0.701	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (2.5 microns or less):	0.701	tons/y	EPA emission factors (e.g., AP-42)

Particulate Matter (total suspended): 0.701 tons/y EPA emission factors (e.g., AP-42)

Sulfur Dioxide: 0.055 tons/y EPA emission factors (e.g., AP-42)

Volatile Organic Compounds (VOC): 0.508 tons/y EPA emission factors (e.g., AP-42)

Subject Item Comments

Tuesday, March 20, 2018

Agency ID: 856

Facility Name: Los Alamos National Security, LLC

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

Submittal Status: 2017 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

Fuel Type: Natural Gas
Input Materials Processed: Natural Gas (INPUT)
Materials Consumed: 101.089 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
<b>Percent of Operation During Summer:</b>	25
Percent of Operation During Fall:	25

Pollutant	Amount	Unit of Measure	Calculation Method
Carbon Monoxide:	2.022	tons/y	EPA emission factors (e.g., AP-42)
Formaldehyde:	0.004	tons/y	EPA emission factors (e.g., AP-42)
Hexane:	0.091	tons/y	EPA emission factors (e.g., AP-42)
Nitrogen Dioxide:	2.932	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (10 microns or less):	0.384	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (2.5 microns or less):	0.384	tons/y	EPA emission factors (e.g., AP-42)

Particulate Matter (total suspended): 0.384 tons/y EPA emission factors (e.g., AP-42)

Sulfur Dioxide: 0.03 tons/y EPA emission factors (e.g., AP-42)

Volatile Organic Compounds (VOC): 0.278 tons/y EPA emission factors (e.g., AP-42)

Subject Item Comments

Tuesday, March 20, 2018

Agency ID: 856

Facility Name: Los Alamos National Security, LLC

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

Submittal Status: 2017 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:	17.313	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
<b>Percent of Operation During Summer:</b>	25
Percent of Operation During Fall:	25

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Pollutant	Amount	of Measure	Calculation Method
Carbon Monoxide:	0.331	tons/y	EPA emission factors (e.g., AP-42)
Formaldehyde:	0.001	tons/y	EPA emission factors (e.g., AP-42)
Hexane:	0.016	tons/y	EPA emission factors (e.g., AP-42)
Nitrogen Dioxide:	1.195	tons/y	Actual stack test
Particulate Matter (10 microns or less):	0.123	tons/y	Manufacturer Specification
Particulate Matter (2.5 microns or less):	0.123	tons/y	Manufacturer Specification
Particulate Matter (total suspended):	0.123	tons/y	Manufacturer Specification
Sulfur Dioxide:	0.005	tons/y	EPA emission factors (e.g., AP-42)
Volatile Organic Compounds (VOC):	0.052	tons/y	Manufacturer Specification

Tuesday, March 20, 2018

Agency ID: 856

Facility Name: Los Alamos National Security, LLC

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

Submittal Status: 2017 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)	
<b>Materials Consumed:</b>	4.813	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:	0.092	tons/y	EPA emission factors (e.g., AP-42)
Formaldehyde:	0.0	tons/y	EPA emission factors (e.g., AP-42)
Hexane:	0.004	tons/y	EPA emission factors (e.g., AP-42)
Lead:	0.0	tons/y	EPA emission factors (e.g., AP-42)
Nitrogen Dioxide:	0.332	tons/y	Actual stack test
Particulate Matter (10 microns or less):	0.034	tons/y	Manufacturer Specification
Particulate Matter (2.5 microns or less):	0.034	tons/y	Manufacturer Specification
Particulate Matter (total suspended):	0.034	tons/y	Manufacturer Specification

Sulfur Dioxide: 0.001

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

**Volatile Organic Compounds (VOC):** 0.014

tons/y

Manufacturer Specification

Subject Item Comments

Tuesday, March 20, 2018

Agency ID: 856

Facility Name: Los Alamos National Security, LLC

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

Submittal Status: 2017 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)	
<b>Materials Consumed:</b>	8.481	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
<b>Percent of Operation During Summer:</b>	25
Percent of Operation During Fall:	25

Pollutant	Amount	Unit of Measure	Calculation Method
Carbon Monoxide:	0.157	tons/y	Design calculation
Hexane:	0.008	tons/y	Design calculation
Lead:	0.0	tons/y	Design calculation
Nitrogen Dioxide:	0.157	tons/y	Design calculation
Particulate Matter (10 microns or less):	0.032	tons/y	Design calculation
Particulate Matter (2.5 microns or less):	0.032	tons/y	Design calculation
Particulate Matter (total suspended):	0.032	tons/y	Design calculation
Sulfur Dioxide:	0.003	tons/y	Design calculation
Volatile Organic Compounds (VOC):	0.023	tons/y	Design calculation

Tuesday, March 20, 2018

Agency ID: 856

Facility Name: Los Alamos National Security, LLC

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

Submittal Status: 2017 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:	0.767	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:	0.015	tons/y	EPA emission factors (e.g., AP-42)
Hexane:	0.001	tons/y	EPA emission factors (e.g., AP-42)
Nitrogen Dioxide:	0.011	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (10 microns or less):	0.002	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):	0.01	tons/y	EPA emission factors (e.g., AP-42)

Tuesday, March 20, 2018

Agency ID: 856

Facility Name: Los Alamos National Security, LLC

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

Submittal Status: 2017 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)	
<b>Materials Consumed:</b>	0.767	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:	0.015	tons/y	EPA emission factors (e.g., AP-42)
Hexane:	0.001	tons/y	EPA emission factors (e.g., AP-42)
Nitrogen Dioxide:	0.011	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (10 microns or less):	0.002	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):	0.01	tons/y	EPA emission factors (e.g., AP-42)

Tuesday, March 20, 2018

Agency ID: 856

Facility Name: Los Alamos National Security, LLC

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

Submittal Status: 2017 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)	
<b>Materials Consumed:</b>	0.767	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:	0.015	tons/y	EPA emission factors (e.g., AP-42)
Hexane:	0.001	tons/y	EPA emission factors (e.g., AP-42)
Nitrogen Dioxide:	0.011	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (10 microns or less):	0.002	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):	0.01	tons/y	EPA emission factors (e.g., AP-42)

Tuesday, March 20, 2018

Agency ID: 856

Facility Name: Los Alamos National Security, LLC

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

Submittal Status: 2017 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)	
<b>Materials Consumed:</b>	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 20, 2018

Agency ID: 856

Facility Name: Los Alamos National Security, LLC

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

Submittal Status: 2017 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)	
<b>Materials Consumed:</b>	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

This unit has not been built.

Tuesday, March 20, 2018

Agency ID: 856

Facility Name: Los Alamos National Security, LLC

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

Submittal Status: 2017 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:	8.481	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:	0.157	tons/y	Design calculation
Hexane:	0.008	tons/y	Design calculation
Lead:	0.0	tons/y	Design calculation
Nitrogen Dioxide:	0.157	tons/y	Design calculation
Particulate Matter (10 microns or less):	0.032	tons/y	Design calculation
Particulate Matter (2.5 microns or less):	0.032	tons/y	Design calculation
Particulate Matter (total suspended):	0.032	tons/y	Design calculation

**Sulfur Dioxide:** 

0.003

tons/y

Design calculation

**Volatile Organic Compounds (VOC):** 

0.023

tons/y

Design calculation

Subject Item Comments

Tuesday, March 20, 2018

Agency ID: 856

Facility Name: Los Alamos National Security, LLC

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

Submittal Status: 2017 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

20	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	

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#### Actual Pollutants

Pollutant	Amount	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)

#### Subject Item Comments

This unit did not run on diesel in 2017.

Tuesday, March 20, 2018

Agency ID: 856

Facility Name: Los Alamos National Security, LLC

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

Submittal Status: 2017 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	
<b>Materials Consumed:</b>	1469.0	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:	8
Operating Time in Days per Week:	2
Operating Time in Weeks per Year:	5
Operating Time in Hours per Year:	80
Percent of Operation During Winter:	25
Percent of Operation During Spring:	25
Percent of Operation During Summer:	25
Percent of Operation During Fall:	25

Unit

## Actual Pollutants

Pollutant	Amount	of Measure	Calculation Method
Carbon Monoxide:	0.004	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:	0.006	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (10 microns or less):	0.002	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (2.5 microns or less):	0.001	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (total suspended):	0.002	tons/y	EPA emission factors (e.g., AP-42)
Sulfur Dioxide:	0.005	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 20, 2018

Agency ID: 856

Facility Name: Los Alamos National Security, LLC

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

Submittal Status: 2017 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
<b>Percent of Operation During Summer:</b>	0
Percent of Operation During Fall:	0

# Actual Pollutants

Pollutant	Amount	Unit of Measure	Calculation Method
Carbon Monoxide:	0.0	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 did not run on diesel in 2017.

Tuesday, March 20, 2018

Agency ID: 856

Facility Name: Los Alamos National Security, LLC

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

Submittal Status: 2017 Submittal (In Process)

Subject Item ID: EQPT-144

**Designation:** Boiler combined emissions

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

**Description:** -53-365-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
<b>Percent Carbon Content:</b>	0.0	percent

## Operating Detail

e	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	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, these 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 20, 2018

Agency ID: 856

Facility Name: Los Alamos National Security, LLC

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

Submittal Status: 2017 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	
<b>Materials Consumed:</b>	0.0	gal
Fuel Heating Value:	0.0	MM BTU/M gal

#### Operating Detail

a a	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

The RLUOB boilers did not operate on fuel oil in 2017.

Tuesday, March 20, 2018

Agency ID: 856

Facility Name: Los Alamos National Security, LLC

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

Submittal Status: 2017 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	
<b>Materials Consumed:</b>	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
<b>Percent of Operation During Summer:</b>	0
Percent of Operation During Fall:	0

#### Actual Pollutants

Pollutant	Amount	Unit of Measure	Calculation Method
Carbon Monoxide:	0.0	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

The RLUOB boilers did not operate on fuel oil in 2017.

Tuesday, March 20, 2018

Agency ID: 856

Facility Name: Los Alamos National Security, LLC

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

Submittal Status: 2017 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	
<b>Materials Consumed:</b>	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

The RLUOB boilers did not operate on fuel oil in 2017.

Tuesday, March 20, 2018

Agency ID: 856

Facility Name: Los Alamos National Security, LLC

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

Submittal Status: 2017 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

This unit has not been built.

Tuesday, March 20, 2018

Agency ID: 856

Facility Name: Los Alamos National Security, LLC

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

Submittal Status: 2017 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	<b>Engineer Calculation</b>
Total HAP:	0.0	tons/y	<b>Engineer Calculation</b>

## Subject Item Comments

No opening burning activities took place in 2017.

Tuesday, March 20, 2018

Agency ID: 856

Facility Name: Los Alamos National Security, LLC

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

Submittal Status: 2017 Submittal (In Process)

Subject Item ID: RPNT-35

**Designation:** TA-60-EVAP-1

**Description:** Evaporative Sprayer for basin water

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:	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	of Measure	Calculation Method	
Total HAP:	0.0	tons/y	Design calculation	
Subject Item Comments				

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Tuesday, March 20, 2018

Agency ID: 856

Facility Name: Los Alamos National Security, LLC

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

Submittal Status: 2017 Submittal (In Process)

Subject Item ID: RPNT-36

**Designation:** TA-60-EVAP-2

**Description:** Evaporative Sprayer for basin water

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:	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	Design calculation
Subject Item Comments			

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Tuesday, March 20, 2018

Agency ID: 856

Facility Name: Los Alamos National Security, LLC

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

Submittal Status: 2017 Submittal (In Process)

Subject Item ID: RPNT-37

**Designation:** TA-60-EVAP-3

**Description:** Evaporative Sprayer for basin water

**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:	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	Design calculation	
Subject Item Comments				

Print

Tuesday, March 20, 2018

Agency ID: 856

Facility Name: Los Alamos National Security, LLC

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

Submittal Status: 2017 Submittal (In Process)

Subject Item ID: RPNT-38

Designation: TA-60-EVAP-4

**Description:** Evaporative Sprayer for basin water

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	
Total HAP:	0.0	tons/y	Design calculation	
Subject Item Comments				
	This sprayer has no	ot been installed.		

Tuesday, March 20, 2018

Agency ID: 856

Facility Name: Los Alamos National Security, LLC

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

Submittal Status: 2017 Submittal (In Process)

Subject Item ID: RPNT-39

**Designation:** TA-60-EVAP-5

**Description:** Evaporative Sprayer for basin water

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
Total HAP:	0.0	tons/y	Design calculation
Subject Item Comments			9
	This sprayer has no	ot been installed.	

Tuesday, March 20, 2018

Agency ID: 856

Facility Name: Los Alamos National Security, LLC

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

Submittal Status: 2017 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:	1.13	tons/y	EPA emission factors (e.g., AP-42)
Nitrogen Dioxide:	4.34	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (10 microns or less):	0.2	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (total suspended):	0.2	tons/y	EPA emission factors (e.g., AP-42)
Sulfur Dioxide:	0.17	tons/y	EPA emission factors (e.g., AP-42)
Volatile Organic Compounds (VOC):	0.21	tons/y	EPA emission factors (e.g., AP-42)
Subject Item Comments			

Tuesday, March 20, 2018

Agency ID: 856

Facility Name: Los Alamos National Security, LLC

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

Submittal Status: 2017 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
Diesel	
Diesel (INPUT)	
3.91	gal
138.0	MM BTU/M gal
0.001	percent
0.01	percent
83.0	percent
	Diesel Diesel (INPUT) 3.91 138.0 0.001

## Operating Detail

	Value
Operating Time in Hours per Day:	2
Operating Time in Days per Week:	1
Operating Time in Weeks per Year:	2
Operating Time in Hours per Year:	4
Percent of Operation During Winter:	50
Percent of Operation During Spring:	0
<b>Percent of Operation During Summer:</b>	0
Percent of Operation During Fall:	50

## Actual Pollutants

Pollutant	Amount	Unit of Measure	Calculation Method
Carbon Monoxide:	0.0	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 20, 2018

Agency ID: 856

Facility Name: Los Alamos National Security, LLC

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

Submittal Status: 2017 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)	
<b>Materials Consumed:</b>	2.04	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
<b>Percent of Operation During Summer:</b>	0
Percent of Operation During Fall:	50

## Actual Pollutants

Pollutant	Amount	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 20, 2018

Agency ID: 856

Facility Name: Los Alamos National Security, LLC

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

Submittal Status: 2017 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	<b>Unit of Measure</b>
Fuel Type:	Diesel	
<b>Materials Consumed:</b>	611.2	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
<b>Percent of Operation During Summer:</b>	25
Percent of Operation During Fall:	25

Heit

## Actual Pollutants

Pollutant	Amount	of Measure	Calculation Method
Carbon Monoxide:	0.123	tons/y	EPA emission factors (e.g., AP-42)
Nitrogen Dioxide:	0.099	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 (2.5 microns or less):	0.005	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (total suspended):	0.006	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):	0.014	tons/y	EPA emission factors (e.g., AP-42)
Subject Item Comments			

Tuesday, March 20, 2018

Agency ID: 856

Facility Name: Los Alamos National Security, LLC

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

Submittal Status: 2017 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:	0.0	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:	0.0	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

Tuesday, March 20, 2018

Agency ID: 856

Facility Name: Los Alamos National Security, LLC

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

Submittal Status: 2017 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:	200
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:	0.046	tons/y	EPA emission factors (e.g., AP-42)
Nitrogen Dioxide:	0.209	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 20, 2018

Agency ID: 856

Facility Name: Los Alamos National Security, LLC

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

Submittal Status: 2017 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	of Measure	Calculation Method
Carbon Monoxide:	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):	0.0	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 20, 2018

Agency ID: 856

Facility Name: Los Alamos National Security, LLC

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

Submittal Status: 2017 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

	Amount	Unit of Measure
Fuel Type:	Diesel	
<b>Materials Consumed:</b>	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

		Unit	Calculation
Pollutant	Amount	of	Method
		Measure	Method

## Subject Item Comments

Tuesday, March 20, 2018

Agency ID: 856

Facility Name: Los Alamos National Security, LLC

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

Submittal Status: 2017 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	<b>Unit of Measure</b>
Fuel Type:	Diesel	
<b>Materials Consumed:</b>	797.7	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
<b>Percent of Operation During Summer:</b>	25
Percent of Operation During Fall:	25

#### Actual Pollutants

Subject Item Comments

Pollutant	Amount	Unit of Measure	Calculation Method
Carbon Monoxide:	0.16	tons/y	EPA emission factors (e.g., AP-42)
Nitrogen Dioxide:	0.129	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (10 microns or less):	0.006	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (total suspended):	0.008	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):	0.018	tons/y	EPA emission factors (e.g., AP-42)

Tuesday, March 20, 2018

Agency ID: 856

Facility Name: Los Alamos National Security, LLC

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

Submittal Status: 2017 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	
<b>Materials Consumed:</b>	424.8	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:	0.085	tons/y	EPA emission factors (e.g., AP-42)
Nitrogen Dioxide:	0.069	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (10 microns or less):	0.003	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (total suspended):	0.004	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):	0.01	tons/y	EPA emission factors (e.g., AP-42)
Subject Item Comments			

Tuesday, March 20, 2018

Agency ID: 856

Facility Name: Los Alamos National Security, LLC

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

Submittal Status: 2017 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:	0
Operating Time in Days per Week:	0
Operating Time in Weeks per Year:	0
Operating Time in Hours per Year:	0
Percent of Operation During Winter:	0
Percent of Operation During Spring:	0
<b>Percent of Operation During Summer:</b>	0
Percent of Operation During Fall:	0

## Actual Pollutants

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)
Cultical New Con a carte			

Subject Item Comments

Tuesday, March 20, 2018

Agency ID: 856

Facility Name: Los Alamos National Security, LLC

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

Submittal Status: 2017 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:	0.001	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			

Print

Tuesday, March 20, 2018

Agency ID: 856

Facility Name: Los Alamos National Security, LLC

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

Submittal Status: 2017 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

Material balance TCE; (Trichloroethylene); (Trichloroethene): 0.002 tons/y

Subject Item Comments

Tuesday, March 20, 2018

Agency ID: 856

Facility Name: Los Alamos National Security, LLC

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

Submittal Status: 2017 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

Amount	Unit of Measure	Calculation Method
0.002	tons/y	Material balance
0.112	tons/y	Material balance
0.001	tons/y	Material balance
0.0	tons/y	Material balance
0.004	tons/y	Material balance
0.002	tons/y	Material balance
0.0	tons/y	Material balance
0.025	tons/y	Material balance
0.0	tons/y	Material balance
0.002	tons/y	Material balance
0.001	tons/y	Material balance
0.011	tons/y	Material balance
0.0	tons/y	Material balance
0.001	tons/y	Material balance
0.0	tons/y	Material balance
0.0	tons/y	Material balance
0.001	tons/y	Material balance
0.0	tons/y	Material balance
	0.002 0.112 0.001 0.0 0.004 0.002 0.0 0.025 0.0 0.002 0.001 0.011 0.0 0.001 0.0 0.001	Amount Of Measure  0.002 tons/y 0.112 tons/y 0.001 tons/y 0.00 tons/y 0.002 tons/y 0.002 tons/y 0.002 tons/y 0.001 tons/y 0.001 tons/y 0.011 tons/y 0.001 tons/y

Cadmium compounds:	0.006	tons/y	Material balance
Carbon Disulfide:	0.003	tons/y	Material balance
Carbon tetrachloride; (Tetrachoromethane):	0.003	tons/y	Material balance
Carbonyl sulfide:	0.0	tons/y	Material balance
Catechol (Pyrocatechol):	0.0	tons/y	Material balance
Chlorine:	0.023	tons/y	Material balance
Chloroacetic Acid:	0.0	tons/y	Material balance
Chlorobenzene(Phenyl Chloride):	0.002	tons/y	Material balance
Chloroform; (Trichloromethane):	0.199	tons/y	Material balance
Chromium:	0.0	tons/y	Material balance
Chromium VI compounds:	0.007	tons/y	Material balance
Cobalt Compounds:	0.004	tons/y	Material balance
Cresol(m-); (Methylphenol, 3-):	0.001	tons/y	Material balance
Cumene:	0.0	tons/y	Material balance
Cyanide compounds:	0.598	tons/y	Material balance
Dibutylphthalate; (Di-n-butyl phthalate):	0.0	tons/y	Material balance
Dichloroethane (1,2-); (EDC); (Ethylene dichloride):	0.002	tons/y	Material balance
Dichlorofluoromethane:	0.0	tons/y	Material balance
Diethanolamine:	0.001	tons/y	Material balance
Dimethyl Sulfate:	0.0	tons/y	Material balance
Dimethyl formamide:	0.038	tons/y	Material balance
Dimethylhydrazine(1,1-):	0.0	tons/y	Material balance
Dioxane(1,4-) (1,4-Diethyleneoxide):	0.005	tons/y	Material balance
Epichlorohydrin; (1-Chloro-2,3-epoxypropane):	0.002	tons/y	Material balance
Epoxybutane(1,2-) (1,2-Butylene oxide):	0.0	tons/y	Material balance
Ethyl Acrylate:	0.001	tons/y	Material balance
Ethyl chloride; (Chloroethane):	0.0	tons/y	Material balance
Ethylbenzene:	0.001	tons/y	Material balance
Ethylene Glycol:	0.37	tons/y	Material balance
Ethylene dibromide; (EDB); (1.2-Dibromoethane):	0.001	tons/y	Material balance
Formaldehyde:	0.0	tons/y	Material balance
Glycol Ethers:	0.066	tons/y	Material balance
Hexachlorocyclopentadiene:	0.0	tons/y	Material balance
Hexamethylphosphoramide:	0.0	tons/y	Material balance
Hexane:	0.37	tons/y	Material balance
Hydrazine:	0.0	tons/y	Material balance
Hydrochloric acid (HCI):	1.141	tons/y	Material balance
Hydrofluoric Acid; (Hydrogen fluoride):	0.013	tons/y	Material balance
Hydroquinone:	0.037	tons/y	Material balance
Iodomethane (Methyl iodide):	0.002	tons/y	Material balance
Lead Compounds:	0.003	tons/y	Material balance
Maleic anhydride:	0.0	tons/y	Material balance
Manganese:	0.0	tons/y	Material balance
Manganese compounds:	0.01	tons/y	Material balance
Mercury compounds:	0.002	tons/y	Material balance
Methanol; (Methyl alcohol):	1.279	tons/y	Material balance
Methyl Ethyl Ketone; (MEK); (2-Butanone):	0.0	tons/y	Material balance
Methyl Methacrylate:	0.002	tons/y	Material balance

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Methyl bromide; (Bromomethane):
                                                                              0.0
                                                                                               Material balance
                                                                                      tons/y
                                       Methyl chloride; (Chloromethane):
                                                                               0.0
                                                                                      tons/y
                                                                                               Material balance
             Methyl isobutyl ketone; (Hexone); (4-Methyl-2-pentanone):
                                                                             0.004
                                                                                      tons/y
                                                                                               Material balance
                                                   Methyl tert butyl ether:
                                                                             0.013
                                                                                      tons/y
                                                                                               Material balance
                                  Methylene chloride; (Dichloromethane):
                                                                             0.421
                                                                                      tons/y
                                                                                               Material balance
Methylenebiphenyl isocyanate; (MDI); (Diphenylmethane diisocyanate):
                                                                             0.073
                                                                                               Material balance
                                                                                      tons/y
                                                            Mineral Fibers:
                                                                             0.003
                                                                                               Material balance
                                                                                      tons/y
                                                             Naphthalene:
                                                                             0.008
                                                                                      tons/y
                                                                                               Material balance
                                                                    Nickel:
                                                                              0.0
                                                                                      tons/y
                                                                                              Material balance
                                                        Nickel compounds:
                                                                             0.009
                                                                                      tons/y
                                                                                               Material balance
                                           Nitrobenzene; (nitro-Benzene):
                                                                             0.005
                                                                                      tons/y
                                                                                               Material balance
                                        Nitrophenol(4-); (p-Nitrophenol):
                                                                               0.0
                                                                                      tons/y
                                                                                              Material balance
 PCE; (Perchloroethylene); (Tetrachloroethylene); (Tetrachloroethene):
                                                                             0.004
                                                                                      tons/y
                                                                                              Material balance
                                                                               0.0
                                                                                      tons/y
                                                                                               Material balance
                             Phenylenediamine(p-); (Phenylenediamine):
                                                                               0.0
                                                                                      tons/y
                                                                                               Material balance
                                                                Phosphine:
                                                                               0.0
                                                                                      tons/y
                                                                                              Material balance
                                                              Phosphorus:
                                                                             0.001
                                                                                      tons/y
                                                                                               Material balance
                                                       Phthalic anhydride:
                                                                               0.0
                                                                                      tons/y
                                                                                              Material balance
                                                  Polycylic Organic Matter:
                                                                             0.045
                                                                                      tons/y
                                                                                              Material balance
                             Propylene Dichloride (1,2-Dichloropropane):
                                                                               0.0
                                                                                      tons/y
                                                                                              Material balance
                                                                               0.0
                                                          Propylene oxide:
                                                                                      tons/y
                                                                                              Material balance
                                                                 Selenium:
                                                                               0.0
                                                                                      tons/y
                                                                                              Material balance
                                                    Selenium compounds:
                                                                               0.0
                                                                                      tons/y
                                                                                              Material balance
                                                                             0.002
                                                                                      tons/y
                                                                                              Material balance
                                                                  Styrene:
                             TCE; (Trichloroethylene); (Trichloroethene):
                                                                             0.013
                                                                                      tons/y
                                                                                              Material balance
                                             Tetrachloroethane(1,1,2,2-):
                                                                              0.0
                                                                                              Material balance
                                                                                      tons/y
                                                                                              Material balance
                                                   Titanium tetrachloride:
                                                                              0.0
                                                                                      tons/y
                                              Toluene diisocyanate(2,4-):
                                                                              0.0
                                                                                      tons/y
                                                                                              Material balance
                                              Toluene; (Methyl benzene):
                                                                             0.134
                                                                                      tons/y
                                                                                              Material balance
                                                                Total HAP:
                                                                              5.16
                                                                                      tons/v
                                                                                              Material balance
                            Trichloroethane(1,1,1-) (Methyl Chloroform):
                                                                             0.002
                                                                                      tons/y
                                                                                              Material balance
                                                  Trichloroethane(1,1,2-):
                                                                              0.0
                                                                                      tons/y
                                                                                              Material balance
                                                            Triethylamine:
                                                                             0.009
                                                                                              Material balance
                                                                                      tons/y
                                                Trimethylpentane(2,2,4-):
                                                                             0.001
                                                                                              Material balance
                                                                                      tons/y
                                             Urethane; (Ethyl carbamate):
                                                                              0.0
                                                                                      tons/y
                                                                                              Material balance
                                 Vinyl acetate; (Vinyl acetate monomer):
                                                                              0.0
                                                                                              Material balance
                                                                                      tons/y
                                      Volatile Organic Compounds (VOC):
                                                                             10.32
                                                                                      tons/y
                                                                                              Material balance
                    Xylene(m-); (1,3-Dimethylbenzene); (meta-Xylene):
                                                                              0.0
                                                                                              Material balance
                                                                                      tons/y
                     Xylene(o-); (1,2-Dimethylbenzene); (ortho-Xylene):
                                                                             0.001
                                                                                      tons/y
                                                                                              Material balance
                     Xylene(p-); (1,4-Dimethylbenzene); (para-Xylene):
                                                                              0.0
                                                                                      tons/y
                                                                                              Material balance
                                                  Xylenes (total); (Xylol):
                                                                             0.057
                                                                                              Material balance
                                                                                      tons/y
       bis(2-ethylhexyl) phthalate; (Di-2-ethylhexyl phthalate); (DEHP):
                                                                              0.0
                                                                                      tons/y
                                                                                              Material balance
Subject Item Comments
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Tuesday, March 20, 2018

Agency ID: 856

Facility Name: Los Alamos National Security, LLC

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

Submittal Status: 2017 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:	0.006	tons/y	Material balance
Volatile Organic Compounds (VOC):	0.0	tons/y	Material balance
Subject Item Comments			

Tuesday, March 20, 2018

Agency ID: 856

Facility Name: Los Alamos National Security, LLC

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

Submittal Status: 2017 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):	0.38	tons/y	Manufacturer Specification
Particulate Matter (2.5 microns or less):	0.25	tons/y	Manufacturer Specification
Particulate Matter (total suspended):	0.42	tons/y	Manufacturer Specification
Subject Item Comments			

Tuesday, March 20, 2018

Agency ID: 856

Facility Name: Los Alamos National Security, LLC

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

Submittal Status: 2017 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:	Diesel		
Input Materials Processed:	Diesel (INPUT)		
<b>Materials Consumed:</b>	51.2	gal	
Fuel Heating Value:	1020.0	MM BTU/M gal	
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	of Measure	Calculation Method
Acetaldehyde; (Ethyl aldehyde):	0.001	tons/y	EPA emission factors (e.g., AP-42)
Carbon Monoxide:	0.269	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:	0.019	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:	1.293	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (10 microns or less):	0.174	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (2.5 microns or less):	0.174	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (total suspended):	0.174	tons/y	EPA emission factors (e.g., AP-42)
Propylene oxide:	0.001	tons/y	EPA emission factors (e.g., AP-42)
Sulfur Dioxide:	0.09	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):	0.056	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