

## LA-UR-19-21065

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# 2018 Emissions Inventory Report Electronic Submittal

**Facility Annual Emissions - Subject Item Submittal Review**

Monday, March 18, 2019

**Agency ID:** 856**Facility Name:** Los Alamos National Laboratory**Organization Name:** U.S. Department of Energy National Nuclear Security Administration**Submittal Status:** 2018 Submittal (In Process)**Subject Item ID:** EQPT-116**Designation:** TA-60-BDM**Description:** Asphalt Plant Dryer - Natural Gas**Type:** Asphalt Drum/Burner**SCC:** Industrial Processes, Mineral Products, Asphalt Concrete, Drum Mix Plant: Rotary Drum Dryer / Mixer, Natural Gas - Fired**GHG Reporting:** Reports GHG to EPA**Supplemental Parameters**

	Amount	Unit of Measure
<b>Fuel Type:</b>	Natural Gas	
<b>Input Materials Processed:</b>	Asphalt (INPUT)	
<b>Materials Consumed:</b>	2.96	MM SCF
<b>Fuel Heating Value:</b>	1030.0	MM BTU/MM SCF
<b>Percent Sulfur of Fuel:</b>	0.001	percent
<b>Percent Ash of Fuel:</b>	0.0	percent

**Operating Detail**

	Value
<b>Operating Time in Hours per Day:</b>	8
<b>Operating Time in Days per Week:</b>	5
<b>Operating Time in Weeks per Year:</b>	26
<b>Operating Time in Hours per Year:</b>	71
<b>Percent of Operation During Winter:</b>	10
<b>Percent of Operation During Spring:</b>	30
<b>Percent of Operation During Summer:</b>	30
<b>Percent of Operation During Fall:</b>	30

**Actual Pollutants**

Pollutant	Amount	Unit of Measure	Calculation Method
<b>Carbon Monoxide:</b>	0.17	tons/y	EPA emission factors (e.g., AP-42)
<b>Ethylbenzene:</b>	0.001	tons/y	EPA emission factors (e.g., AP-42)
<b>Lead:</b>	0.0	tons/y	EPA emission factors (e.g., AP-42)
<b>Nitrogen Dioxide:</b>	0.005	tons/y	EPA emission factors (e.g., AP-42)
<b>Particulate Matter (10 microns or less):</b>	0.003	tons/y	Manufacturer Specification
<b>Particulate Matter (2.5 microns or less):</b>	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***

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Monday, March 18, 2019

**Agency ID:** 856**Facility Name:** Los Alamos National Laboratory**Organization Name:** U.S. Department of Energy National Nuclear Security Administration**Submittal Status:** 2018 Submittal (In Process)**Subject Item ID:** ACT -2**Designation:** TA-35-213

Beryllium Activity-Be Target

**Description:** Fabrication Facility - Machining  
TA-35-213**Type:** Beryllium Work**SCC:** Industrial Processes, Fabricated  
Metal Products, Machining  
Operations, Specify Material\*\***GHG Reporting:** Reports GHG to EPA**Supplemental Parameters****Input Materials Processed:** Metal (INPUT)**Operating Detail**

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

**Actual Pollutants**

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

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**Agency ID:** 856**Facility Name:** Los Alamos National Laboratory**Organization Name:** U.S. Department of Energy National Nuclear Security Administration**Submittal Status:** 2018 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
<b>Operating Time in Hours per Day:</b>	24
<b>Operating Time in Days per Week:</b>	7
<b>Operating Time in Weeks per Year:</b>	52
<b>Operating Time in Hours per Year:</b>	8760
<b>Percent of Operation During Winter:</b>	25
<b>Percent of Operation During Spring:</b>	25
<b>Percent of Operation During Summer:</b>	25
<b>Percent of Operation During Fall:</b>	25

**Actual Pollutants**

Pollutant	Amount	Unit of Measure	Calculation Method
<b>Beryllium:</b>	0.0	tons/y	Field measurement

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**Agency ID:** 856**Facility Name:** Los Alamos National Laboratory**Organization Name:** U.S. Department of Energy National Nuclear Security Administration**Submittal Status:** 2018 Submittal (In Process)**Subject Item ID:** ACT -6**Designation:** TA-55-PF4 (a)**Description:** Beryllium Activity-Plutonium  
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
<b>Operating Time in Hours per Day:</b>	5
<b>Operating Time in Days per Week:</b>	7
<b>Operating Time in Weeks per Year:</b>	52
<b>Operating Time in Hours per Year:</b>	1820
<b>Percent of Operation During Winter:</b>	25
<b>Percent of Operation During Spring:</b>	25
<b>Percent of Operation During Summer:</b>	25
<b>Percent of Operation During Fall:</b>	25

**Actual Pollutants**

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

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**Agency ID:** 856**Facility Name:** Los Alamos National Laboratory**Organization Name:** U.S. Department of Energy National Nuclear Security Administration**Submittal Status:** 2018 Submittal (In Process)**Subject Item ID:** ACT -41**Designation:** TA-3-66**Description:** Beryllium Activity-Sigma Facility-  
electroplating/metallography**Type:** Beryllium Work**SCC:** Industrial Processes, Fabricated  
Metal Products, Abrasive  
Cleaning of Metal Parts,  
Polishing**GHG Reporting:** Reports GHG to EPA**Supplemental Parameters****Input Materials Processed:** Metal (INPUT)**Operating Detail**

	Value
<b>Operating Time in Hours per Day:</b>	8
<b>Operating Time in Days per Week:</b>	7
<b>Operating Time in Weeks per Year:</b>	52
<b>Operating Time in Hours per Year:</b>	2912
<b>Percent of Operation During Winter:</b>	25
<b>Percent of Operation During Spring:</b>	25
<b>Percent of Operation During Summer:</b>	25
<b>Percent of Operation During Fall:</b>	25

**Actual Pollutants**

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

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**Agency ID:** 856**Facility Name:** Los Alamos National Laboratory**Organization Name:** U.S. Department of Energy National Nuclear Security Administration**Submittal Status:** 2018 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**

	<b>Amount</b>	<b>Unit of Measure</b>
<b>Fuel Type:</b>	Natural Gas	
<b>Input Materials Processed:</b>	Natural Gas (INPUT)	
<b>Materials Consumed:</b>	10.115	MM SCF
<b>Fuel Heating Value:</b>	1030.0	MM BTU/MM SCF
<b>Percent Sulfur of Fuel:</b>	0.001	percent
<b>Percent Ash of Fuel:</b>	0.0	percent
<b>Percent Carbon Content:</b>	65.0	percent

**Operating Detail**

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

**Actual Pollutants**

<b>Pollutant</b>	<b>Amount</b>	<b>Unit of Measure</b>	<b>Calculation Method</b>
<b>Carbon Monoxide:</b>	0.425	tons/y	EPA emission factors (e.g., AP-42)
<b>Formaldehyde:</b>	0.0	tons/y	EPA emission factors (e.g., AP-42)
<b>Hexane:</b>	0.009	tons/y	EPA emission factors (e.g., AP-42)
<b>Nitrogen Dioxide:</b>	0.506	tons/y	EPA emission factors (e.g., AP-42)
<b>Particulate Matter (10 microns or less):</b>	0.038	tons/y	EPA emission factors (e.g., AP-42)
<b>Particulate Matter (2.5 microns or less):</b>	0.038	tons/y	EPA emission factors (e.g., AP-42)
<b>Sulfur Dioxide:</b>	0.003	tons/y	EPA emission factors (e.g., AP-42)

**Volatile Organic Compounds (VOC):** 0.028 tons/y EPA emission factors (e.g., AP-42)

***Subject Item Comments***

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**Agency ID:** 856**Facility Name:** Los Alamos National Laboratory**Organization Name:** U.S. Department of Energy National Nuclear Security Administration**Submittal Status:** 2018 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***

	<b>Amount</b>	<b>Unit of Measure</b>
<b>Fuel Type:</b>	Natural Gas	
<b>Input Materials Processed:</b>	Natural Gas (INPUT)	
<b>Materials Consumed:</b>	10.115	MM SCF
<b>Fuel Heating Value:</b>	1030.0	MM BTU/MM SCF
<b>Percent Sulfur of Fuel:</b>	0.001	percent
<b>Percent Ash of Fuel:</b>	0.0	percent
<b>Percent Carbon Content:</b>	65.0	percent

***Operating Detail***

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

***Actual Pollutants***

<b>Pollutant</b>	<b>Amount</b>	<b>Unit of Measure</b>	<b>Calculation Method</b>
<b>Carbon Monoxide:</b>	0.425	tons/y	EPA emission factors (e.g., AP-42)
<b>Formaldehyde:</b>	0.0	tons/y	EPA emission factors (e.g., AP-42)
<b>Hexane:</b>	0.009	tons/y	EPA emission factors (e.g., AP-42)
<b>Nitrogen Dioxide:</b>	0.506	tons/y	EPA emission factors (e.g., AP-42)
<b>Particulate Matter (10 microns or less):</b>	0.038	tons/y	EPA emission factors (e.g., AP-42)
<b>Particulate Matter (2.5 microns or less):</b>	0.038	tons/y	EPA emission factors (e.g., AP-42)
<b>Sulfur Dioxide:</b>	0.003	tons/y	EPA emission factors (e.g., AP-42)

**Volatile Organic Compounds (VOC):** 0.028 tons/y EPA emission factors (e.g., AP-42)

***Subject Item Comments***

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Monday, March 18, 2019

**Agency ID:** 856**Facility Name:** Los Alamos National Laboratory**Organization Name:** U.S. Department of Energy National Nuclear Security Administration**Submittal Status:** 2018 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**

	<b>Amount</b>	<b>Unit of Measure</b>
<b>Fuel Type:</b>	Natural Gas	
<b>Input Materials Processed:</b>	Natural Gas (INPUT)	
<b>Materials Consumed:</b>	154.602	MM SCF
<b>Fuel Heating Value:</b>	1030.0	MM BTU/MM SCF
<b>Percent Sulfur of Fuel:</b>	0.001	percent
<b>Percent Ash of Fuel:</b>	0.0	percent
<b>Percent Carbon Content:</b>	65.0	percent

**Operating Detail**

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

**Actual Pollutants**

<b>Pollutant</b>	<b>Amount</b>	<b>Unit of Measure</b>	<b>Calculation Method</b>
<b>Carbon Monoxide:</b>	3.092	tons/y	EPA emission factors (e.g., AP-42)
<b>Formaldehyde:</b>	0.006	tons/y	EPA emission factors (e.g., AP-42)
<b>Hexane:</b>	0.139	tons/y	EPA emission factors (e.g., AP-42)
<b>Nitrogen Dioxide:</b>	4.483	tons/y	EPA emission factors (e.g., AP-42)
<b>Particulate Matter (10 microns or less):</b>	0.587	tons/y	EPA emission factors (e.g., AP-42)
<b>Particulate Matter (2.5 microns or less):</b>	0.587	tons/y	EPA emission factors (e.g., AP-42)

<b>Sulfur Dioxide:</b>	0.046	tons/y	EPA emission factors (e.g., AP-42)
<b>Toluene; (Methyl benzene):</b>	0.0	tons/y	EPA emission factors (e.g., AP-42)
<b>Volatile Organic Compounds (VOC):</b>	0.425	tons/y	EPA emission factors (e.g., AP-42)

***Subject Item Comments***

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**Agency ID:** 856**Facility Name:** Los Alamos National Laboratory**Organization Name:** U.S. Department of Energy National Nuclear Security Administration**Submittal Status:** 2018 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***

	<b>Amount</b>	<b>Unit of Measure</b>
<b>Fuel Type:</b>	Natural Gas	
<b>Input Materials Processed:</b>	Natural Gas (INPUT)	
<b>Materials Consumed:</b>	114.276	MM SCF
<b>Fuel Heating Value:</b>	1030.0	MM BTU/MM SCF
<b>Percent Sulfur of Fuel:</b>	0.001	percent
<b>Percent Ash of Fuel:</b>	0.0	percent
<b>Percent Carbon Content:</b>	65.0	percent

***Operating Detail***

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

***Actual Pollutants***

<b>Pollutant</b>	<b>Amount</b>	<b>Unit of Measure</b>	<b>Calculation Method</b>
<b>Carbon Monoxide:</b>	2.286	tons/y	EPA emission factors (e.g., AP-42)
<b>Formaldehyde:</b>	0.004	tons/y	EPA emission factors (e.g., AP-42)
<b>Hexane:</b>	0.103	tons/y	EPA emission factors (e.g., AP-42)
<b>Nitrogen Dioxide:</b>	3.314	tons/y	EPA emission factors (e.g., AP-42)
<b>Particulate Matter (10 microns or less):</b>	0.434	tons/y	EPA emission factors (e.g., AP-42)
<b>Particulate Matter (2.5 microns or less):</b>	0.434	tons/y	EPA emission factors (e.g., AP-42)



**Sulfur Dioxide:** 0.034 tons/y EPA emission factors (e.g., AP-42)

**Volatile Organic Compounds (VOC):** 0.314 tons/y EPA emission factors (e.g., AP-42)

***Subject Item Comments***

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**Facility Annual Emissions - Subject Item Submittal Review**

Monday, March 18, 2019

**Agency ID:** 856**Facility Name:** Los Alamos National Laboratory**Organization Name:** U.S. Department of Energy National Nuclear Security Administration**Submittal Status:** 2018 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**

	<b>Amount</b>	<b>Unit of Measure</b>
<b>Fuel Type:</b>	Natural Gas	
<b>Input Materials Processed:</b>	Natural Gas (INPUT)	
<b>Materials Consumed:</b>	80.361	MM SCF
<b>Fuel Heating Value:</b>	1030.0	MM BTU/MM SCF
<b>Percent Sulfur of Fuel:</b>	0.001	percent
<b>Percent Ash of Fuel:</b>	0.0	percent
<b>Percent Carbon Content:</b>	65.0	percent

**Operating Detail**

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

**Actual Pollutants**

<b>Pollutant</b>	<b>Amount</b>	<b>Unit of Measure</b>	<b>Calculation Method</b>
<b>Carbon Monoxide:</b>	1.607	tons/y	EPA emission factors (e.g., AP-42)
<b>Formaldehyde:</b>	0.003	tons/y	EPA emission factors (e.g., AP-42)
<b>Hexane:</b>	0.072	tons/y	EPA emission factors (e.g., AP-42)
<b>Nitrogen Dioxide:</b>	2.33	tons/y	EPA emission factors (e.g., AP-42)
<b>Particulate Matter (10 microns or less):</b>	0.305	tons/y	EPA emission factors (e.g., AP-42)
<b>Particulate Matter (2.5 microns or less):</b>	0.305	tons/y	EPA emission factors (e.g., AP-42)

**Sulfur Dioxide:** 0.024 tons/y EPA emission factors (e.g., AP-42)

**Volatile Organic Compounds (VOC):** 0.221 tons/y EPA emission factors (e.g., AP-42)

***Subject Item Comments***

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Monday, March 18, 2019

**Agency ID:** 856**Facility Name:** Los Alamos National Laboratory**Organization Name:** U.S. Department of Energy National Nuclear Security Administration**Submittal Status:** 2018 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**

	<b>Amount</b>	<b>Unit of Measure</b>
<b>Fuel Type:</b>	Natural Gas	
<b>Input Materials Processed:</b>	Natural Gas (INPUT)	
<b>Materials Consumed:</b>	1.598	MM SCF
<b>Fuel Heating Value:</b>	1030.0	MM BTU/MM SCF
<b>Percent Sulfur of Fuel:</b>	0.001	percent

**Operating Detail**

	<b>Value</b>
<b>Operating Time in Hours per Day:</b>	15
<b>Operating Time in Days per Week:</b>	7
<b>Operating Time in Weeks per Year:</b>	33
<b>Operating Time in Hours per Year:</b>	3465
<b>Percent of Operation During Winter:</b>	25
<b>Percent of Operation During Spring:</b>	25
<b>Percent of Operation During Summer:</b>	25
<b>Percent of Operation During Fall:</b>	25

**Actual Pollutants**

<b>Pollutant</b>	<b>Amount</b>	<b>Unit of Measure</b>	<b>Calculation Method</b>
<b>Carbon Monoxide:</b>	0.031	tons/y	EPA emission factors (e.g., AP-42)
<b>Formaldehyde:</b>	0.0	tons/y	EPA emission factors (e.g., AP-42)
<b>Hexane:</b>	0.001	tons/y	EPA emission factors (e.g., AP-42)
<b>Nitrogen Dioxide:</b>	0.11	tons/y	Actual stack test
<b>Particulate Matter (10 microns or less):</b>	0.011	tons/y	Manufacturer Specification
<b>Particulate Matter (2.5 microns or less):</b>	0.011	tons/y	Manufacturer Specification
<b>Sulfur Dioxide:</b>	0.0	tons/y	EPA emission factors (e.g., AP-42)
<b>Volatile Organic Compounds (VOC):</b>	0.005	tons/y	Manufacturer Specification

**Subject Item Comments**

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Monday, March 18, 2019

**Agency ID:** 856**Facility Name:** Los Alamos National Laboratory**Organization Name:** U.S. Department of Energy National Nuclear Security Administration**Submittal Status:** 2018 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***

	<b>Amount</b>	<b>Unit of Measure</b>
<b>Fuel Type:</b>	Natural Gas	
<b>Input Materials Processed:</b>	Natural Gas (INPUT)	
<b>Materials Consumed:</b>	19.051	MM SCF
<b>Fuel Heating Value:</b>	1030.0	MM BTU/MM SCF
<b>Percent Sulfur of Fuel:</b>	0.001	percent
<b>Percent Carbon Content:</b>	65.0	percent

***Operating Detail***

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

***Actual Pollutants***

<b>Pollutant</b>	<b>Amount</b>	<b>Unit of Measure</b>	<b>Calculation Method</b>
<b>Carbon Monoxide:</b>	0.364	tons/y	EPA emission factors (e.g., AP-42)
<b>Formaldehyde:</b>	0.001	tons/y	EPA emission factors (e.g., AP-42)
<b>Hexane:</b>	0.017	tons/y	EPA emission factors (e.g., AP-42)
<b>Lead:</b>	0.0	tons/y	EPA emission factors (e.g., AP-42)
<b>Nitrogen Dioxide:</b>	1.315	tons/y	Actual stack test
<b>Particulate Matter (10 microns or less):</b>	0.135	tons/y	Manufacturer Specification
<b>Particulate Matter (2.5 microns or less):</b>	0.135	tons/y	Manufacturer Specification
<b>Sulfur Dioxide:</b>	0.006	tons/y	EPA emission factors (e.g., AP-42)

**Volatile Organic Compounds (VOC):** 0.057 tons/y      Manufacturer Specification  
*Subject Item Comments*

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**Facility Annual Emissions - Subject Item Submittal Review**

Monday, March 18, 2019

**Agency ID:** 856**Facility Name:** Los Alamos National Laboratory**Organization Name:** U.S. Department of Energy National Nuclear Security Administration**Submittal Status:** 2018 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
<b>Fuel Type:</b>	Natural Gas	
<b>Input Materials Processed:</b>	Natural Gas (INPUT)	
<b>Materials Consumed:</b>	9.028	MM SCF
<b>Fuel Heating Value:</b>	1030.0	MM BTU/MM SCF
<b>Percent Ash of Fuel:</b>	0.0	percent

**Operating Detail**

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

**Actual Pollutants**

Pollutant	Amount	Unit of Measure	Calculation Method
<b>Carbon Monoxide:</b>	0.167	tons/y	Design calculation
<b>Hexane:</b>	0.008	tons/y	Design calculation
<b>Lead:</b>	0.0	tons/y	Design calculation
<b>Nitrogen Dioxide:</b>	0.167	tons/y	Design calculation
<b>Particulate Matter (10 microns or less):</b>	0.034	tons/y	Design calculation
<b>Particulate Matter (2.5 microns or less):</b>	0.034	tons/y	Design calculation
<b>Sulfur Dioxide:</b>	0.003	tons/y	Design calculation
<b>Volatile Organic Compounds (VOC):</b>	0.025	tons/y	Design calculation

**Subject Item Comments**

**Facility Annual Emissions - Subject Item Submittal Review**

Monday, March 18, 2019

**Agency ID:** 856**Facility Name:** Los Alamos National Laboratory**Organization Name:** U.S. Department of Energy National Nuclear Security Administration**Submittal Status:** 2018 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**

	<b>Amount</b>	<b>Unit of Measure</b>
<b>Fuel Type:</b>	Natural Gas	
<b>Input Materials Processed:</b>	Natural Gas (INPUT)	
<b>Materials Consumed:</b>	0.706	MM SCF
<b>Fuel Heating Value:</b>	1030.0	MM BTU/MM SCF
<b>Percent Sulfur of Fuel:</b>	0.001	percent
<b>Percent Ash of Fuel:</b>	0.0	percent
<b>Percent Carbon Content:</b>	65.0	percent

**Operating Detail**

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

**Actual Pollutants**

<b>Pollutant</b>	<b>Amount</b>	<b>Unit of Measure</b>	<b>Calculation Method</b>
<b>Carbon Monoxide:</b>	0.013	tons/y	EPA emission factors (e.g., AP-42)
<b>Hexane:</b>	0.001	tons/y	EPA emission factors (e.g., AP-42)
<b>Nitrogen Dioxide:</b>	0.011	tons/y	EPA emission factors (e.g., AP-42)
<b>Particulate Matter (10 microns or less):</b>	0.002	tons/y	EPA emission factors (e.g., AP-42)
<b>Particulate Matter (2.5 microns or less):</b>	0.002	tons/y	EPA emission factors (e.g., AP-42)
<b>Sulfur Dioxide:</b>	0.0	tons/y	EPA emission factors (e.g., AP-42)
<b>Volatile Organic Compounds (VOC):</b>	0.009	tons/y	EPA emission factors (e.g., AP-42)

**Subject Item Comments**



**Facility Annual Emissions - Subject Item Submittal Review**

Monday, March 18, 2019

**Agency ID:** 856**Facility Name:** Los Alamos National Laboratory**Organization Name:** U.S. Department of Energy National Nuclear Security Administration**Submittal Status:** 2018 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
<b>Fuel Type:</b>	Natural Gas	
<b>Input Materials Processed:</b>	Natural Gas (INPUT)	
<b>Materials Consumed:</b>	0.706	MM SCF
<b>Fuel Heating Value:</b>	1030.0	MM BTU/MM SCF
<b>Percent Sulfur of Fuel:</b>	0.001	percent
<b>Percent Ash of Fuel:</b>	0.0	percent
<b>Percent Carbon Content:</b>	65.0	percent

**Operating Detail**

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

**Actual Pollutants**

Pollutant	Amount	Unit of Measure	Calculation Method
<b>Carbon Monoxide:</b>	0.013	tons/y	EPA emission factors (e.g., AP-42)
<b>Hexane:</b>	0.001	tons/y	EPA emission factors (e.g., AP-42)
<b>Nitrogen Dioxide:</b>	0.011	tons/y	EPA emission factors (e.g., AP-42)
<b>Particulate Matter (10 microns or less):</b>	0.002	tons/y	EPA emission factors (e.g., AP-42)
<b>Particulate Matter (2.5 microns or less):</b>	0.002	tons/y	EPA emission factors (e.g., AP-42)
<b>Sulfur Dioxide:</b>	0.0	tons/y	EPA emission factors (e.g., AP-42)
<b>Volatile Organic Compounds (VOC):</b>	0.009	tons/y	EPA emission factors (e.g., AP-42)

**Subject Item Comments**

**Facility Annual Emissions - Subject Item Submittal Review**

Monday, March 18, 2019

**Agency ID:** 856**Facility Name:** Los Alamos National Laboratory**Organization Name:** U.S. Department of Energy National Nuclear Security Administration**Submittal Status:** 2018 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
<b>Fuel Type:</b>	Natural Gas	
<b>Input Materials Processed:</b>	Natural Gas (INPUT)	
<b>Materials Consumed:</b>	0.706	MM SCF
<b>Fuel Heating Value:</b>	1030.0	MM BTU/MM SCF
<b>Percent Sulfur of Fuel:</b>	0.001	percent
<b>Percent Ash of Fuel:</b>	0.0	percent
<b>Percent Carbon Content:</b>	65.0	percent

***Operating Detail***

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

***Actual Pollutants***

Pollutant	Amount	Unit of Measure	Calculation Method
<b>Carbon Monoxide:</b>	0.013	tons/y	EPA emission factors (e.g., AP-42)
<b>Hexane:</b>	0.001	tons/y	EPA emission factors (e.g., AP-42)
<b>Nitrogen Dioxide:</b>	0.011	tons/y	EPA emission factors (e.g., AP-42)
<b>Particulate Matter (10 microns or less):</b>	0.002	tons/y	EPA emission factors (e.g., AP-42)
<b>Particulate Matter (2.5 microns or less):</b>	0.002	tons/y	EPA emission factors (e.g., AP-42)
<b>Sulfur Dioxide:</b>	0.0	tons/y	EPA emission factors (e.g., AP-42)
<b>Volatile Organic Compounds (VOC):</b>	0.009	tons/y	EPA emission factors (e.g., AP-42)

***Subject Item Comments***

**Facility Annual Emissions - Subject Item Submittal Review**

Monday, March 18, 2019

**Agency ID:** 856**Facility Name:** Los Alamos National Laboratory**Organization Name:** U.S. Department of Energy National Nuclear Security Administration**Submittal Status:** 2018 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***

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

***Operating Detail***

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

***Actual Pollutants***

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

***Subject Item Comments***

This unit has not been built.

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**Facility Annual Emissions - Subject Item Submittal Review**

Monday, March 18, 2019

**Agency ID:** 856**Facility Name:** Los Alamos National Laboratory**Organization Name:** U.S. Department of Energy National Nuclear Security Administration**Submittal Status:** 2018 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***

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

***Operating Detail***

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

***Actual Pollutants***

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

***Subject Item Comments***

This unit has not been built.

**Facility Annual Emissions - Subject Item Submittal Review**

Monday, March 18, 2019

**Agency ID:** 856**Facility Name:** Los Alamos National Laboratory**Organization Name:** U.S. Department of Energy National Nuclear Security Administration**Submittal Status:** 2018 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**

	<b>Amount</b>	<b>Unit of Measure</b>
<b>Fuel Type:</b>	Natural Gas	
<b>Input Materials Processed:</b>	Natural Gas (INPUT)	
<b>Materials Consumed:</b>	9.028	MM SCF
<b>Fuel Heating Value:</b>	1030.0	MM BTU/MM SCF
<b>Percent Sulfur of Fuel:</b>	0.001	percent
<b>Percent Ash of Fuel:</b>	0.0	percent
<b>Percent Carbon Content:</b>	65.0	percent

**Operating Detail**

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

**Actual Pollutants**

<b>Pollutant</b>	<b>Amount</b>	<b>Unit of Measure</b>	<b>Calculation Method</b>
<b>Carbon Monoxide:</b>	0.167	tons/y	Design calculation
<b>Hexane:</b>	0.008	tons/y	Design calculation
<b>Lead:</b>	0.0	tons/y	Design calculation
<b>Nitrogen Dioxide:</b>	0.167	tons/y	Design calculation
<b>Particulate Matter (10 microns or less):</b>	0.034	tons/y	Design calculation
<b>Particulate Matter (2.5 microns or less):</b>	0.034	tons/y	Design calculation
<b>Sulfur Dioxide:</b>	0.003	tons/y	Design calculation

**Volatile Organic Compounds (VOC):**

0.025

tons/y

Design calculation

***Subject Item Comments***

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**Facility Annual Emissions - Subject Item Submittal Review**

Monday, March 18, 2019

**Agency ID:** 856**Facility Name:** Los Alamos National Laboratory**Organization Name:** U.S. Department of Energy National Nuclear Security Administration**Submittal Status:** 2018 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
<b>Fuel Type:</b>	Diesel	
<b>Materials Consumed:</b>	0.0	gal
<b>Fuel Heating Value:</b>	0.138	MM BTU/M gal
<b>Percent Sulfur of Fuel:</b>	0.05	percent

***Operating Detail***

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

***Actual Pollutants***

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

***Subject Item Comments***



This unit did not run on diesel in 2018.

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**Facility Annual Emissions - Subject Item Submittal Review**

Monday, March 18, 2019

**Agency ID:** 856**Facility Name:** Los Alamos National Laboratory**Organization Name:** U.S. Department of Energy National Nuclear Security Administration**Submittal Status:** 2018 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***

	<b>Amount</b>	<b>Unit of Measure</b>
<b>Fuel Type:</b>	Diesel	
<b>Materials Consumed:</b>	371.0	gal
<b>Fuel Heating Value:</b>	0.138	MM BTU/M gal
<b>Percent Sulfur of Fuel:</b>	0.05	percent

***Operating Detail***

	<b>Value</b>
<b>Operating Time in Hours per Day:</b>	8
<b>Operating Time in Days per Week:</b>	2
<b>Operating Time in Weeks per Year:</b>	5
<b>Operating Time in Hours per Year:</b>	1
<b>Percent of Operation During Winter:</b>	25
<b>Percent of Operation During Spring:</b>	25
<b>Percent of Operation During Summer:</b>	25
<b>Percent of Operation During Fall:</b>	25

***Actual Pollutants***

<b>Pollutant</b>	<b>Amount</b>	<b>Unit of Measure</b>	<b>Calculation Method</b>
<b>Carbon Monoxide:</b>	0.001	tons/y	EPA emission factors (e.g., AP-42)
<b>Formaldehyde:</b>	0.0	tons/y	EPA emission factors (e.g., AP-42)
<b>Hexane:</b>	0.0	tons/y	EPA emission factors (e.g., AP-42)
<b>Nitrogen Dioxide:</b>	0.002	tons/y	EPA emission factors (e.g., AP-42)
<b>Particulate Matter (10 microns or less):</b>	0.0	tons/y	EPA emission factors (e.g., AP-42)
<b>Particulate Matter (2.5 microns or less):</b>	0.0	tons/y	EPA emission factors (e.g., AP-42)
<b>Sulfur Dioxide:</b>	0.001	tons/y	EPA emission factors (e.g., AP-42)
<b>Volatile Organic Compounds (VOC):</b>	0.0	tons/y	EPA emission factors (e.g., AP-42)

***Subject Item Comments***

**Facility Annual Emissions - Subject Item Submittal Review**

Monday, March 18, 2019

**Agency ID:** 856**Facility Name:** Los Alamos National Laboratory**Organization Name:** U.S. Department of Energy National Nuclear Security Administration**Submittal Status:** 2018 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
<b>Fuel Type:</b>	Diesel	
<b>Materials Consumed:</b>	0.0	gal
<b>Fuel Heating Value:</b>	0.138	MM BTU/M gal

**Operating Detail**

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

**Actual Pollutants**

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

**Subject Item Comments**

This unit did not run on diesel in 2018.

**Facility Annual Emissions - Subject Item Submittal Review**

Monday, March 18, 2019

**Agency ID:** 856**Facility Name:** Los Alamos National Laboratory**Organization Name:** U.S. Department of Energy National Nuclear Security Administration**Submittal Status:** 2018 Submittal (In Process)**Subject Item ID:** EQPT-144**Designation:** Boiler combined emissions

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

**Description:** BHW-1,2; TA-55-6-BHW-1,2;  
RLUOB-BHW-1,2,3,4**Type:** Boiler**SCC:** External Combustion Boilers,  
Electric Generation, Natural Gas,  
Boilers > 100 Million Btu/hr  
except Tangential**GHG Reporting:** Reports GHG to EPA**Supplemental Parameters**

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

**Operating Detail**

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

**Actual Pollutants**

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

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**Facility Annual Emissions - Subject Item Submittal Review**

Monday, March 18, 2019

**Agency ID:** 856**Facility Name:** Los Alamos National Laboratory**Organization Name:** U.S. Department of Energy National Nuclear Security Administration**Submittal Status:** 2018 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***

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

***Operating Detail***

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

***Actual Pollutants***

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

***Subject Item Comments***

The RLUOB boilers did not operate on fuel oil in 2018.

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**Facility Annual Emissions - Subject Item Submittal Review**

Monday, March 18, 2019

**Agency ID:** 856**Facility Name:** Los Alamos National Laboratory**Organization Name:** U.S. Department of Energy National Nuclear Security Administration**Submittal Status:** 2018 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**

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

**Operating Detail**

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

**Actual Pollutants**

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

**Subject Item Comments**

The RLUOB boilers did not operate on fuel oil in 2018.

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Monday, March 18, 2019

**Agency ID:** 856**Facility Name:** Los Alamos National Laboratory**Organization Name:** U.S. Department of Energy National Nuclear Security Administration**Submittal Status:** 2018 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**

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

**Operating Detail**

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

**Actual Pollutants**

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

**Subject Item Comments**

The RLUOB boilers did not operate on fuel oil in 2018.

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Monday, March 18, 2019

**Agency ID:** 856**Facility Name:** Los Alamos National Laboratory**Organization Name:** U.S. Department of Energy National Nuclear Security Administration**Submittal Status:** 2018 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**

	<b>Amount</b>	<b>Unit of Measure</b>
<b>Fuel Type:</b>	Diesel	
<b>Materials Consumed:</b>	0.0	MM gal
<b>Fuel Heating Value:</b>	0.0	MM BTU/MM SCF

**Operating Detail**

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

**Actual Pollutants**

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

**Subject Item Comments**

The RLUOB boilers did not operate on fuel oil in 2018.

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Monday, March 18, 2019

**Agency ID:** 856**Facility Name:** Los Alamos National Laboratory**Organization Name:** U.S. Department of Energy National Nuclear Security Administration**Submittal Status:** 2018 Submittal (In Process)**Subject Item ID:** EQPT-169**Designation:** TA-3-22-4&5 (Oil TPY)**Description:** Power Plant Boiler (TPY, 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
<b>Fuel Type:</b>	Diesel	
<b>Materials Consumed:</b>	0.0	gal
<b>Fuel Heating Value:</b>	0.0	MM BTU/M gal

**Operating Detail**

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

**Actual Pollutants**

Pollutant	Amount	Unit of Measure	Calculation Method
<b>Carbon Monoxide:</b>	0.0	tons/y	Design calculation
<b>Nitrogen Dioxide:</b>	0.0	tons/y	Design calculation
<b>Particulate Matter (10 microns or less):</b>	0.0	tons/y	Design calculation
<b>Particulate Matter (2.5 microns or less):</b>	0.0	tons/y	Design calculation
<b>Sulfur Dioxide:</b>	0.0	tons/y	Design calculation
<b>Volatile Organic Compounds (VOC):</b>	0.0	tons/y	Design calculation

**Subject Item Comments**

Boilers 4 and 5 have not been built.

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**Agency ID:** 856**Facility Name:** Los Alamos National Laboratory**Organization Name:** U.S. Department of Energy National Nuclear Security Administration**Submittal Status:** 2018 Submittal (In Process)**Subject Item ID:** EQPT-170**Designation:** TA-3-22-4&5 (gas TPY)**Description:** Power Plant Boiler (TPY, 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**

	<b>Amount</b>	<b>Unit of Measure</b>
<b>Fuel Type:</b>	Natural Gas	
<b>Materials Consumed:</b>	0.0	MM SCF
<b>Fuel Heating Value:</b>	0.0	MM BTU/MM SCF

**Operating Detail**

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

**Actual Pollutants**

<b>Pollutant</b>	<b>Amount</b>	<b>Unit of Measure</b>	<b>Calculation Method</b>
<b>Carbon Monoxide:</b>	0.0	tons/y	Design calculation
<b>Nitrogen Dioxide:</b>	0.0	tons/y	Design calculation
<b>Particulate Matter (10 microns or less):</b>	0.0	tons/y	Design calculation
<b>Particulate Matter (2.5 microns or less):</b>	0.0	tons/y	Design calculation
<b>Sulfur Dioxide:</b>	0.0	tons/y	Design calculation
<b>Volatile Organic Compounds (VOC):</b>	0.0	tons/y	Design calculation

**Subject Item Comments**

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Monday, March 18, 2019

**Agency ID:** 856**Facility Name:** Los Alamos National Laboratory**Organization Name:** U.S. Department of Energy National Nuclear Security Administration**Submittal Status:** 2018 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
<b>Operating Time in Hours per Day:</b>	0
<b>Operating Time in Days per Week:</b>	0
<b>Operating Time in Weeks per Year:</b>	0
<b>Operating Time in Hours per Year:</b>	0
<b>Percent of Operation During Winter:</b>	0
<b>Percent of Operation During Spring:</b>	0
<b>Percent of Operation During Summer:</b>	0
<b>Percent of Operation During Fall:</b>	0

***Actual Pollutants***

Pollutant	Amount	Unit of Measure	Calculation Method
<b>Individual HAP:</b>	0.0	tons/y	Engineer Calculation
<b>Total HAP:</b>	0.0	tons/y	Engineer Calculation

***Subject Item Comments***

No open burning activities took place in 2018.

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**Facility Annual Emissions - Subject Item Submittal Review**

Monday, March 18, 2019

**Agency ID:** 856**Facility Name:** Los Alamos National Laboratory**Organization Name:** U.S. Department of Energy National Nuclear Security Administration**Submittal Status:** 2018 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
<b>Operating Time in Hours per Day:</b>	24
<b>Operating Time in Days per Week:</b>	7
<b>Operating Time in Weeks per Year:</b>	52
<b>Operating Time in Hours per Year:</b>	8760
<b>Percent of Operation During Winter:</b>	25
<b>Percent of Operation During Spring:</b>	25
<b>Percent of Operation During Summer:</b>	25
<b>Percent of Operation During Fall:</b>	25

***Actual Pollutants***

Pollutant	Amount	Unit of Measure	Calculation Method
<b>Total HAP:</b>	0.001	tons/y	Design calculation

***Subject Item Comments***

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**Agency ID:** 856**Facility Name:** Los Alamos National Laboratory**Organization Name:** U.S. Department of Energy National Nuclear Security Administration**Submittal Status:** 2018 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
<b>Operating Time in Hours per Day:</b>	24
<b>Operating Time in Days per Week:</b>	7
<b>Operating Time in Weeks per Year:</b>	52
<b>Operating Time in Hours per Year:</b>	8760
<b>Percent of Operation During Winter:</b>	25
<b>Percent of Operation During Spring:</b>	25
<b>Percent of Operation During Summer:</b>	25
<b>Percent of Operation During Fall:</b>	25

***Actual Pollutants***

Pollutant	Amount	Unit of Measure	Calculation Method
<b>Total HAP:</b>	0.0	tons/y	Design calculation

***Subject Item Comments***

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**Facility Annual Emissions - Subject Item Submittal Review**

Monday, March 18, 2019

**Agency ID:** 856**Facility Name:** Los Alamos National Laboratory**Organization Name:** U.S. Department of Energy National Nuclear Security Administration**Submittal Status:** 2018 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***

The sprayer did not operate in 2018.

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**Facility Annual Emissions - Subject Item Submittal Review**

Monday, March 18, 2019

**Agency ID:** 856**Facility Name:** Los Alamos National Laboratory**Organization Name:** U.S. Department of Energy National Nuclear Security Administration**Submittal Status:** 2018 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
<b>Operating Time in Hours per Day:</b>	24
<b>Operating Time in Days per Week:</b>	7
<b>Operating Time in Weeks per Year:</b>	52
<b>Operating Time in Hours per Year:</b>	8760
<b>Percent of Operation During Winter:</b>	25
<b>Percent of Operation During Spring:</b>	25
<b>Percent of Operation During Summer:</b>	25
<b>Percent of Operation During Fall:</b>	25

***Actual Pollutants***

Pollutant	Amount	Unit of Measure	Calculation Method
<b>Total HAP:</b>	0.0	tons/y	Design calculation

***Subject Item Comments***

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**Agency ID:** 856**Facility Name:** Los Alamos National Laboratory**Organization Name:** U.S. Department of Energy National Nuclear Security Administration**Submittal Status:** 2018 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
<b>Operating Time in Hours per Day:</b>	24
<b>Operating Time in Days per Week:</b>	7
<b>Operating Time in Weeks per Year:</b>	52
<b>Operating Time in Hours per Year:</b>	8760
<b>Percent of Operation During Winter:</b>	25
<b>Percent of Operation During Spring:</b>	25
<b>Percent of Operation During Summer:</b>	25
<b>Percent of Operation During Fall:</b>	25

***Actual Pollutants***

Pollutant	Amount	Unit of Measure	Calculation Method
<b>Total HAP:</b>	0.0	tons/y	Design calculation

***Subject Item Comments***

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**Agency ID:** 856**Facility Name:** Los Alamos National Laboratory**Organization Name:** U.S. Department of Energy National Nuclear Security Administration**Submittal Status:** 2018 Submittal (In Process)**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**

	<b>Amount</b>	<b>Unit of Measure</b>
<b>Fuel Type:</b>	Diesel	
<b>Fuel Heating Value:</b>	138.0	MM BTU/M gal

**Operating Detail**

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

**Actual Pollutants**

<b>Pollutant</b>	<b>Amount</b>	<b>Unit of Measure</b>	<b>Calculation Method</b>
<b>Carbon Monoxide:</b>	0.729	tons/y	EPA emission factors (e.g., AP-42)
<b>Nitrogen Dioxide:</b>	3.2	tons/y	EPA emission factors (e.g., AP-42)
<b>Particulate Matter (10 microns or less):</b>	0.141	tons/y	EPA emission factors (e.g., AP-42)
<b>Sulfur Dioxide:</b>	0.11	tons/y	EPA emission factors (e.g., AP-42)
<b>Volatile Organic Compounds (VOC):</b>	0.141	tons/y	EPA emission factors (e.g., AP-42)

**Subject Item Comments**

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**Agency ID:** 856**Facility Name:** Los Alamos National Laboratory**Organization Name:** U.S. Department of Energy National Nuclear Security Administration**Submittal Status:** 2018 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
<b>Fuel Type:</b>	Diesel	
<b>Input Materials Processed:</b>	Diesel (INPUT)	
<b>Materials Consumed:</b>	0.17	gal
<b>Fuel Heating Value:</b>	0.138	MM BTU/M gal
<b>Percent Sulfur of Fuel:</b>	0.001	percent
<b>Percent Ash of Fuel:</b>	0.01	percent
<b>Percent Carbon Content:</b>	83.0	percent

**Operating Detail**

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

**Actual Pollutants**

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

**Subject Item Comments**

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**Agency ID:** 856**Facility Name:** Los Alamos National Laboratory**Organization Name:** U.S. Department of Energy National Nuclear Security Administration**Submittal Status:** 2018 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
<b>Fuel Type:</b>	Diesel	
<b>Input Materials Processed:</b>	Diesel (INPUT)	
<b>Materials Consumed:</b>	0.0	gal
<b>Fuel Heating Value:</b>	0.138	MM BTU/M gal
<b>Percent Sulfur of Fuel:</b>	0.001	percent
<b>Percent Ash of Fuel:</b>	0.01	percent
<b>Percent Carbon Content:</b>	83.0	percent

**Operating Detail**

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

**Actual Pollutants**

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

**Subject Item Comments**

This unit did not operate in 2018.

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**Agency ID:** 856**Facility Name:** Los Alamos National Laboratory**Organization Name:** U.S. Department of Energy National Nuclear Security Administration**Submittal Status:** 2018 Submittal (In Process)**Subject Item ID:** EQPT-128**Designation:** RLUOB-GEN 1**Description:** Cummins Diesel Powered  
Generator and Engine - CMRR**Type:** Internal combustion engine**SCC:** Internal Combustion Engines,  
Industrial, Distillate Oil (Diesel),  
Reciprocating: Cogeneration**GHG Reporting:** Reports GHG to EPA**Supplemental Parameters**

	Amount	Unit of Measure
<b>Fuel Type:</b>	Diesel	
<b>Materials Consumed:</b>	10.36	gal
<b>Fuel Heating Value:</b>	0.138	MM BTU/M gal

**Operating Detail**

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

**Actual Pollutants**

Pollutant	Amount	Unit of Measure	Calculation Method
<b>Carbon Monoxide:</b>	0.002	tons/y	EPA emission factors (e.g., AP-42)
<b>Nitrogen Dioxide:</b>	0.002	tons/y	EPA emission factors (e.g., AP-42)
<b>Particulate Matter (10 microns or less):</b>	0.0	tons/y	EPA emission factors (e.g., AP-42)
<b>Particulate Matter (2.5 microns or less):</b>	0.0	tons/y	EPA emission factors (e.g., AP-42)
<b>Sulfur Dioxide:</b>	0.0	tons/y	EPA emission factors (e.g., AP-42)
<b>Volatile Organic Compounds (VOC):</b>	0.0	tons/y	EPA emission factors (e.g., AP-42)

**Subject Item Comments**

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**Facility Annual Emissions - Subject Item Submittal Review**

Monday, March 18, 2019

**Agency ID:** 856**Facility Name:** Los Alamos National Laboratory**Organization Name:** U.S. Department of Energy National Nuclear Security Administration**Submittal Status:** 2018 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
<b>Fuel Type:</b>	Diesel	
<b>Input Materials Processed:</b>	Diesel (INPUT)	
<b>Materials Consumed:</b>	331.8	gal
<b>Fuel Heating Value:</b>	0.138	MM BTU/M gal
<b>Percent Sulfur of Fuel:</b>	0.001	percent
<b>Percent Ash of Fuel:</b>	0.01	percent
<b>Percent Carbon Content:</b>	83.0	percent

**Operating Detail**

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

**Actual Pollutants**

Pollutant	Amount	Unit of Measure	Calculation Method
<b>Carbon Monoxide:</b>	0.074	tons/y	Design calculation
<b>Nitrogen Dioxide:</b>	0.123	tons/y	Design calculation
<b>Particulate Matter (10 microns or less):</b>	0.008	tons/y	EPA emission factors (e.g., AP-42)
<b>Sulfur Dioxide:</b>	0.008	tons/y	EPA emission factors (e.g., AP-42)
<b>Volatile Organic Compounds (VOC):</b>	0.01	tons/y	EPA emission factors (e.g., AP-42)

**Subject Item Comments**

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Monday, March 18, 2019

**Agency ID:** 856**Facility Name:** Los Alamos National Laboratory**Organization Name:** U.S. Department of Energy National Nuclear Security Administration**Submittal Status:** 2018 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
<b>Operating Time in Hours per Day:</b>	8
<b>Operating Time in Days per Week:</b>	5
<b>Operating Time in Weeks per Year:</b>	20
<b>Operating Time in Hours per Year:</b>	200
<b>Percent of Operation During Winter:</b>	25
<b>Percent of Operation During Spring:</b>	25
<b>Percent of Operation During Summer:</b>	25
<b>Percent of Operation During Fall:</b>	25

***Actual Pollutants***

Pollutant	Amount	Unit of Measure	Calculation Method
<b>Carbon Monoxide:</b>	0.052	tons/y	EPA emission factors (e.g., AP-42)
<b>Nitrogen Dioxide:</b>	0.237	tons/y	EPA emission factors (e.g., AP-42)
<b>Particulate Matter (10 microns or less):</b>	0.007	tons/y	EPA emission factors (e.g., AP-42)
<b>Sulfur Dioxide:</b>	0.004	tons/y	EPA emission factors (e.g., AP-42)
<b>Volatile Organic Compounds (VOC):</b>	0.007	tons/y	EPA emission factors (e.g., AP-42)

***Subject Item Comments***

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Monday, March 18, 2019

**Agency ID:** 856**Facility Name:** Los Alamos National Laboratory**Organization Name:** U.S. Department of Energy National Nuclear Security Administration**Submittal Status:** 2018 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
<b>Operating Time in Hours per Day:</b>	2
<b>Operating Time in Days per Week:</b>	2
<b>Operating Time in Weeks per Year:</b>	8
<b>Operating Time in Hours per Year:</b>	20
<b>Percent of Operation During Winter:</b>	25
<b>Percent of Operation During Spring:</b>	25
<b>Percent of Operation During Summer:</b>	25
<b>Percent of Operation During Fall:</b>	25

***Actual Pollutants***

Pollutant	Amount	Unit of Measure	Calculation Method
<b>Carbon Monoxide:</b>	0.02	tons/y	EPA emission factors (e.g., AP-42)
<b>Nitrogen Dioxide:</b>	0.198	tons/y	EPA emission factors (e.g., AP-42)
<b>Particulate Matter (10 microns or less):</b>	0.006	tons/y	EPA emission factors (e.g., AP-42)
<b>Particulate Matter (2.5 microns or less):</b>	0.006	tons/y	EPA emission factors (e.g., AP-42)
<b>Sulfur Dioxide:</b>	0.005	tons/y	EPA emission factors (e.g., AP-42)
<b>Volatile Organic Compounds (VOC):</b>	0.015	tons/y	EPA emission factors (e.g., AP-42)

***Subject Item Comments***

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Monday, March 18, 2019

**Agency ID:** 856**Facility Name:** Los Alamos National Laboratory**Organization Name:** U.S. Department of Energy National Nuclear Security Administration**Submittal Status:** 2018 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
<b>Fuel Type:</b>	Diesel	
<b>Materials Consumed:</b>	0.0	gal
<b>Fuel Heating Value:</b>	0.138	MM BTU/M gal

***Operating Detail***

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

***Actual Pollutants***

Pollutant	Amount	Unit of Measure	Calculation Method
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***Subject Item Comments***

This unit did not operate in 2018.

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Monday, March 18, 2019

**Agency ID:** 856**Facility Name:** Los Alamos National Laboratory**Organization Name:** U.S. Department of Energy National Nuclear Security Administration**Submittal Status:** 2018 Submittal (In Process)**Subject Item ID:** EQPT-153**Designation:** RLUOB-GEN 2**Description:** Cummins Diesel Powered  
Generator and Engine - CMRR**Type:** Internal combustion engine**SCC:** Internal Combustion Engines,  
Industrial, Distillate Oil (Diesel),  
Reciprocating: Cogeneration**GHG Reporting:** Reports GHG to EPA***Supplemental Parameters***

	Amount	Unit of Measure
<b>Fuel Type:</b>	Diesel	
<b>Materials Consumed:</b>	5439.0	gal
<b>Fuel Heating Value:</b>	0.138	MM BTU/M gal

***Operating Detail***

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

***Actual Pollutants***

Pollutant	Amount	Unit of Measure	Calculation Method
<b>Carbon Monoxide:</b>	1.093	tons/y	EPA emission factors (e.g., AP-42)
<b>Nitrogen Dioxide:</b>	0.882	tons/y	EPA emission factors (e.g., AP-42)
<b>Particulate Matter (10 microns or less):</b>	0.043	tons/y	EPA emission factors (e.g., AP-42)
<b>Sulfur Dioxide:</b>	0.023	tons/y	EPA emission factors (e.g., AP-42)
<b>Volatile Organic Compounds (VOC):</b>	0.125	tons/y	EPA emission factors (e.g., AP-42)

***Subject Item Comments***

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Monday, March 18, 2019

**Agency ID:** 856**Facility Name:** Los Alamos National Laboratory**Organization Name:** U.S. Department of Energy National Nuclear Security Administration**Submittal Status:** 2018 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
<b>Fuel Type:</b>	Diesel	
<b>Materials Consumed:</b>	2745.4	gal
<b>Fuel Heating Value:</b>	0.138	MM BTU/M gal

**Operating Detail**

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

**Actual Pollutants**

Pollutant	Amount	Unit of Measure	Calculation Method
<b>Carbon Monoxide:</b>	0.551	tons/y	EPA emission factors (e.g., AP-42)
<b>Nitrogen Dioxide:</b>	0.445	tons/y	EPA emission factors (e.g., AP-42)
<b>Particulate Matter (10 microns or less):</b>	0.022	tons/y	EPA emission factors (e.g., AP-42)
<b>Sulfur Dioxide:</b>	0.012	tons/y	EPA emission factors (e.g., AP-42)
<b>Volatile Organic Compounds (VOC):</b>	0.063	tons/y	EPA emission factors (e.g., AP-42)

**Subject Item Comments**

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Monday, March 18, 2019

**Agency ID:** 856**Facility Name:** Los Alamos National Laboratory**Organization Name:** U.S. Department of Energy National Nuclear Security Administration**Submittal Status:** 2018 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
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)
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 operate in 2018.

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**Agency ID:** 856**Facility Name:** Los Alamos National Laboratory**Organization Name:** U.S. Department of Energy National Nuclear Security Administration**Submittal Status:** 2018 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
<b>Operating Time in Hours per Day:</b>	0
<b>Operating Time in Days per Week:</b>	0
<b>Operating Time in Weeks per Year:</b>	0
<b>Operating Time in Hours per Year:</b>	0
<b>Percent of Operation During Winter:</b>	0
<b>Percent of Operation During Spring:</b>	0
<b>Percent of Operation During Summer:</b>	0
<b>Percent of Operation During Fall:</b>	0

**Actual Pollutants**

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

**Subject Item Comments**

This unit did not operate in 2018.

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**Agency ID:** 856**Facility Name:** Los Alamos National Laboratory**Organization Name:** U.S. Department of Energy National Nuclear Security Administration**Submittal Status:** 2018 Submittal (In Process)**Subject Item ID:** EQPT-160**Designation:** TA-50-184-GEN-1**Description:** Cummins Diesel Generator and Engine, exempt**Type:** Internal combustion engine**SCC:** Internal Combustion Engines, Industrial, Distillate Oil (Diesel), Reciprocating**GHG Reporting:** Reports GHG to EPA**Supplemental Parameters****Fuel Type:** Diesel**Operating Detail**

	Value
<b>Operating Time in Hours per Day:</b>	8
<b>Operating Time in Days per Week:</b>	5
<b>Operating Time in Weeks per Year:</b>	52
<b>Operating Time in Hours per Year:</b>	40
<b>Percent of Operation During Winter:</b>	25
<b>Percent of Operation During Spring:</b>	25
<b>Percent of Operation During Summer:</b>	25
<b>Percent of Operation During Fall:</b>	25

**Actual Pollutants**

Pollutant	Amount	Unit of Measure	Calculation Method
<b>Carbon Monoxide:</b>	0.022	tons/y	EPA emission factors (e.g., AP-42)
<b>Nitrogen Dioxide:</b>	0.101	tons/y	EPA emission factors (e.g., AP-42)
<b>Particulate Matter (10 microns or less):</b>	0.003	tons/y	EPA emission factors (e.g., AP-42)
<b>Sulfur Dioxide:</b>	0.002	tons/y	EPA emission factors (e.g., AP-42)
<b>Volatile Organic Compounds (VOC):</b>	0.003	tons/y	EPA emission factors (e.g., AP-42)

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**Agency ID:** 856**Facility Name:** Los Alamos National Laboratory**Organization Name:** U.S. Department of Energy National Nuclear Security Administration**Submittal Status:** 2018 Submittal (In Process)**Subject Item ID:** EQPT-161**Designation:** TA-55-GEN-4**Description:** Cummins Diesel Generator and Engine, exempt**Type:** Internal combustion engine**SCC:** Internal Combustion Engines, Industrial, Distillate Oil (Diesel), Reciprocating**GHG Reporting:** Reports GHG to EPA**Supplemental Parameters****Fuel Type:** Diesel**Operating Detail**

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

**Actual Pollutants**

Pollutant	Amount	Unit of Measure	Calculation Method
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**Subject Item Comments**

This generator did not operate in 2018.

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**Agency ID:** 856**Facility Name:** Los Alamos National Laboratory**Organization Name:** U.S. Department of Energy National Nuclear Security Administration**Submittal Status:** 2018 Submittal (In Process)**Subject Item ID:** EQPT-162**Designation:** TA-55-GEN-5**Description:** Cummins Diesel Generator and Engine, exempt**Type:** Internal combustion engine**SCC:** Internal Combustion Engines, Industrial, Distillate Oil (Diesel), Reciprocating**GHG Reporting:** Reports GHG to EPA***Supplemental Parameters*****Fuel Type:** Diesel***Operating Detail***

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

***Actual Pollutants***

Pollutant	Amount	Unit of Measure	Calculation Method
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***Subject Item Comments***

This generator did not operate in 2018.

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**Agency ID:** 856**Facility Name:** Los Alamos National Laboratory**Organization Name:** U.S. Department of Energy National Nuclear Security Administration**Submittal Status:** 2018 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
<b>Operating Time in Hours per Day:</b>	24
<b>Operating Time in Days per Week:</b>	7
<b>Operating Time in Weeks per Year:</b>	52
<b>Operating Time in Hours per Year:</b>	8760
<b>Percent of Operation During Winter:</b>	25
<b>Percent of Operation During Spring:</b>	25
<b>Percent of Operation During Summer:</b>	25
<b>Percent of Operation During Fall:</b>	25

**Actual Pollutants**

Pollutant	Amount	Unit of Measure	Calculation Method
<b>Acetaldehyde; (Ethyl aldehyde):</b>	0.0	tons/y	Material balance
<b>Acetonitrile; (Methyl cyanide):</b>	0.272	tons/y	Material balance
<b>Acetophenone:</b>	0.003	tons/y	Material balance
<b>Acrylamide:</b>	0.0	tons/y	Material balance
<b>Acrylic acid:</b>	0.004	tons/y	Material balance
<b>Acrylonitrile:</b>	0.0	tons/y	Material balance
<b>Ammonia:</b>	0.0	tons/y	Material balance
<b>Aniline:</b>	0.001	tons/y	Material balance
<b>Antimony:</b>	0.0	tons/y	Material balance
<b>Antimony compounds:</b>	0.0	tons/y	Material balance
<b>Arsenic Compounds:</b>	0.001	tons/y	Material balance
<b>Benzene:</b>	0.021	tons/y	Material balance
<b>Benzyl Chloride:</b>	0.0	tons/y	Material balance
<b>Beryllium Compounds:</b>	0.006	tons/y	Material balance
<b>Biphenyl:</b>	0.0	tons/y	Material balance
<b>Bromoform; (Tribromomethane):</b>	0.0	tons/y	Material balance
<b>Butadiene(1,3-):</b>	0.0	tons/y	Material balance
<b>Cadmium:</b>	0.0	tons/y	Material balance

<b>Cadmium compounds:</b>	0.002	tons/y	Material balance
<b>Carbon Disulfide:</b>	0.0	tons/y	Material balance
<b>Carbon tetrachloride; (Tetrachloromethane):</b>	0.004	tons/y	Material balance
<b>Carbonyl sulfide:</b>	0.0	tons/y	Material balance
<b>Catechol (Pyrocatechol):</b>	0.0	tons/y	Material balance
<b>Chlorine:</b>	0.0	tons/y	Material balance
<b>Chloroacetic Acid:</b>	0.0	tons/y	Material balance
<b>Chlorobenzene(Phenyl Chloride):</b>	0.005	tons/y	Material balance
<b>Chloroform; (Trichloromethane):</b>	0.108	tons/y	Material balance
<b>Chromium:</b>	0.0	tons/y	Material balance
<b>Chromium VI compounds:</b>	0.015	tons/y	Material balance
<b>Cobalt Compounds:</b>	0.003	tons/y	Material balance
<b>Cresol(m-); (Methylphenol, 3-):</b>	0.001	tons/y	Material balance
<b>Cumene:</b>	0.0	tons/y	Material balance
<b>Cyanide compounds:</b>	0.011	tons/y	Material balance
<b>Dibutylphthalate; (Di-n-butyl phthalate):</b>	0.014	tons/y	Material balance
<b>Dichloroethane (1,2-); (EDC); (Ethylene dichloride):</b>	0.01	tons/y	Material balance
<b>Dichlorofluoromethane:</b>	0.0	tons/y	Material balance
<b>Diethanolamine:</b>	0.0	tons/y	Material balance
<b>Dimethyl Sulfate:</b>	0.0	tons/y	Material balance
<b>Dimethyl formamide:</b>	0.328	tons/y	Material balance
<b>Dimethylhydrazine(1,1-):</b>	0.0	tons/y	Material balance
<b>Dioxane(1,4-) (1,4-Diethyleneoxide):</b>	0.029	tons/y	Material balance
<b>Epichlorohydrin; (1-Chloro-2,3-epoxypropane):</b>	0.001	tons/y	Material balance
<b>Epoxybutane(1,2-) (1,2-Butylene oxide):</b>	0.0	tons/y	Material balance
<b>Ethyl Acrylate:</b>	0.001	tons/y	Material balance
<b>Ethyl chloride; (Chloroethane):</b>	0.0	tons/y	Material balance
<b>Ethylbenzene:</b>	0.004	tons/y	Material balance
<b>Ethylene Glycol:</b>	0.487	tons/y	Material balance
<b>Ethylene dibromide; (EDB); (1,2-Dibromoethane):</b>	0.0	tons/y	Material balance
<b>Formaldehyde:</b>	0.01	tons/y	Material balance
<b>Glycol Ethers:</b>	0.127	tons/y	Material balance
<b>Hexachlorocyclopentadiene:</b>	0.0	tons/y	Material balance
<b>Hexamethylphosphoramide:</b>	0.0	tons/y	Material balance
<b>Hexane:</b>	0.533	tons/y	Material balance
<b>Hydrazine:</b>	0.0	tons/y	Material balance
<b>Hydrochloric acid (HCl):</b>	1.234	tons/y	Material balance
<b>Hydrofluoric Acid; (Hydrogen fluoride):</b>	0.048	tons/y	Material balance
<b>Hydroquinone:</b>	0.076	tons/y	Material balance
<b>Iodomethane (Methyl iodide):</b>	0.0	tons/y	Material balance
<b>Isophorone:</b>	0.001	tons/y	Material balance
<b>Lead Compounds:</b>	0.005	tons/y	Material balance
<b>Maleic anhydride:</b>	0.0	tons/y	Material balance
<b>Manganese:</b>	0.0	tons/y	Material balance
<b>Manganese compounds:</b>	0.003	tons/y	Material balance
<b>Mercury compounds:</b>	0.005	tons/y	Material balance
<b>Methanol; (Methyl alcohol):</b>	1.139	tons/y	Material balance
<b>Methyl Ethyl Ketone; (MEK); (2-Butanone):</b>	0.0	tons/y	Material balance

<b>Methyl Methacrylate:</b>	0.005	tons/y	Material balance
<b>Methyl bromide; (Bromomethane):</b>	0.0	tons/y	Material balance
<b>Methyl chloride; (Chloromethane):</b>	0.0	tons/y	Material balance
<b>Methyl isobutyl ketone; (Hexone); (4-Methyl-2-pentanone):</b>	0.006	tons/y	Material balance
<b>Methyl tert butyl ether:</b>	0.0	tons/y	Material balance
<b>Methylene chloride; (Dichloromethane):</b>	0.848	tons/y	Material balance
<b>Methylenebiphenyl isocyanate; (MDI); (Diphenylmethane diisocyanate):</b>	0.135	tons/y	Material balance
<b>Mineral Fibers:</b>	0.031	tons/y	Material balance
<b>Naphthalene:</b>	0.0	tons/y	Material balance
<b>Nickel:</b>	0.0	tons/y	Material balance
<b>Nickel compounds:</b>	0.001	tons/y	Material balance
<b>Nitrobenzene; (nitro-Benzene):</b>	0.004	tons/y	Material balance
<b>Nitrophenol(4-); (p-Nitrophenol):</b>	0.0	tons/y	Material balance
<b>PCE; (Perchloroethylene); (Tetrachloroethylene); (Tetrachloroethene):</b>	0.0	tons/y	Material balance
<b>Phenol:</b>	0.0	tons/y	Material balance
<b>Phenylenediamine(p-); (Phenylenediamine):</b>	0.0	tons/y	Material balance
<b>Phosphine:</b>	0.0	tons/y	Material balance
<b>Phosphorus:</b>	0.0	tons/y	Material balance
<b>Phthalic anhydride:</b>	0.001	tons/y	Material balance
<b>Polycyclic Organic Matter:</b>	0.012	tons/y	Material balance
<b>Propylene Dichloride (1,2-Dichloropropane):</b>	0.0	tons/y	Material balance
<b>Propylene oxide:</b>	0.0	tons/y	Material balance
<b>Selenium:</b>	0.0	tons/y	Material balance
<b>Selenium compounds:</b>	0.0	tons/y	Material balance
<b>Styrene:</b>	0.004	tons/y	Material balance
<b>TCE; (Trichloroethylene); (Trichloroethene):</b>	0.009	tons/y	Material balance
<b>Tetrachloroethane(1,1,2,2-):</b>	0.0	tons/y	Material balance
<b>Titanium tetrachloride:</b>	0.0	tons/y	Material balance
<b>Toluene diisocyanate(2,4-):</b>	0.002	tons/y	Material balance
<b>Toluene; (Methyl benzene):</b>	0.136	tons/y	Material balance
<b>Total HAP:</b>	5.87	tons/y	Material balance
<b>Trichloroethane(1,1,1-) (Methyl Chloroform):</b>	0.01	tons/y	Material balance
<b>Trichloroethane(1,1,2-):</b>	0.004	tons/y	Material balance
<b>Triethylamine:</b>	0.004	tons/y	Material balance
<b>Trimethylpentane(2,2,4-):</b>	0.0	tons/y	Material balance
<b>Urethane; (Ethyl carbamate):</b>	0.0	tons/y	Material balance
<b>Vinyl acetate; (Vinyl acetate monomer):</b>	0.0	tons/y	Material balance
<b>Volatile Organic Compounds (VOC):</b>	11.25	tons/y	Material balance
<b>Xylene(m-); (1,3-Dimethylbenzene); (meta-Xylene):</b>	0.0	tons/y	Material balance
<b>Xylene(o-); (1,2-Dimethylbenzene); (ortho-Xylene):</b>	0.0	tons/y	Material balance
<b>Xylene(p-); (1,4-Dimethylbenzene); (para-Xylene):</b>	0.0	tons/y	Material balance
<b>Xylenes (total); (Xylol):</b>	0.142	tons/y	Material balance
<b>bis(2-ethylhexyl) phthalate; (Di-2-ethylhexyl phthalate); (DEHP):</b>	0.0	tons/y	Material balance

*Subject Item Comments*

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**Facility Annual Emissions - Subject Item Submittal Review**

Monday, March 18, 2019

**Agency ID:** 856**Facility Name:** Los Alamos National Laboratory**Organization Name:** U.S. Department of Energy National Nuclear Security Administration**Submittal Status:** 2018 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
<b>Operating Time in Hours per Day:</b>	24
<b>Operating Time in Days per Week:</b>	7
<b>Operating Time in Weeks per Year:</b>	52
<b>Operating Time in Hours per Year:</b>	8760
<b>Percent of Operation During Winter:</b>	25
<b>Percent of Operation During Spring:</b>	25
<b>Percent of Operation During Summer:</b>	25
<b>Percent of Operation During Fall:</b>	25

**Actual Pollutants**

Pollutant	Amount	Unit of Measure	Calculation Method
<b>Total HAP:</b>	0.012	tons/y	Material balance
<b>Volatile Organic Compounds (VOC):</b>	0.003	tons/y	Material balance

**Subject Item Comments**

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**Facility Annual Emissions - Subject Item Submittal Review**

Monday, March 18, 2019

**Agency ID:** 856**Facility Name:** Los Alamos National Laboratory**Organization Name:** U.S. Department of Energy National Nuclear Security Administration**Submittal Status:** 2018 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
<b>Operating Time in Hours per Day:</b>	7
<b>Operating Time in Days per Week:</b>	5
<b>Operating Time in Weeks per Year:</b>	52
<b>Operating Time in Hours per Year:</b>	1820
<b>Percent of Operation During Winter:</b>	25
<b>Percent of Operation During Spring:</b>	25
<b>Percent of Operation During Summer:</b>	25
<b>Percent of Operation During Fall:</b>	25

***Actual Pollutants***

Pollutant	Amount	Unit of Measure	Calculation Method
<b>Particulate Matter (10 microns or less):</b>	0.35	tons/y	Manufacturer Specification
<b>Particulate Matter (2.5 microns or less):</b>	0.23	tons/y	Manufacturer Specification

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**Facility Annual Emissions - Subject Item Submittal Review**

Monday, March 18, 2019

**Agency ID:** 856**Facility Name:** Los Alamos National Laboratory**Organization Name:** U.S. Department of Energy National Nuclear Security Administration**Submittal Status:** 2018 Submittal (In Process)**Subject Item ID:** RPNT-40**Designation:** SSM from TA-3-22-CHP-1**Description:** Routine Start up Shut down  
Maintenance**Type:** Stack/Vent**SCC:** Industrial Processes, Oil and Gas  
Production, Fugitive Emissions,  
Fugitive Emissions**GHG Reporting:** Reports GHG to EPA**Supplemental Parameters****Operating Detail**

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

**Actual Pollutants**

Pollutant	Amount	Unit of Measure	Calculation Method
<b>Carbon Monoxide:</b>	0.0	tons/y	Design calculation
<b>Nitrogen Dioxide:</b>	0.0	tons/y	Design calculation
<b>Particulate Matter (10 microns or less):</b>	0.0	tons/y	Design calculation
<b>Particulate Matter (2.5 microns or less):</b>	0.0	tons/y	Design calculation
<b>Sulfur Dioxide:</b>	0.0	tons/y	Design calculation
<b>Volatile Organic Compounds (VOC):</b>	0.0	tons/y	Design calculation

**Subject Item Comments**

Unit has not been installed.

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**Facility Annual Emissions - Subject Item Submittal Review**

Monday, March 18, 2019

**Agency ID:** 856**Facility Name:** Los Alamos National Laboratory**Organization Name:** U.S. Department of Energy National Nuclear Security Administration**Submittal Status:** 2018 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
<b>Fuel Type:</b>	Natural Gas	
<b>Input Materials Processed:</b>	Natural Gas (INPUT)	
<b>Materials Consumed:</b>	171.98	MM SCF
<b>Fuel Heating Value:</b>	1030.0	MM BTU/MM SCF
<b>Percent Sulfur of Fuel:</b>	0.001	percent
<b>Percent Ash of Fuel:</b>	0.0	percent
<b>Percent Carbon Content:</b>	65.0	percent

**Operating Detail**

	Value
<b>Operating Time in Hours per Day:</b>	7
<b>Operating Time in Days per Week:</b>	4
<b>Operating Time in Weeks per Year:</b>	12
<b>Operating Time in Hours per Year:</b>	709
<b>Percent of Operation During Winter:</b>	25
<b>Percent of Operation During Spring:</b>	25
<b>Percent of Operation During Summer:</b>	25
<b>Percent of Operation During Fall:</b>	25

**Actual Pollutants**

Pollutant	Amount	Unit of Measure	Calculation Method
<b>Acetaldehyde; (Ethyl aldehyde):</b>	0.004	tons/y	EPA emission factors (e.g., AP-42)
<b>Carbon Monoxide:</b>	0.903	tons/y	EPA emission factors (e.g., AP-42)
<b>Copper:</b>	0.006	tons/y	EPA emission factors (e.g., AP-42)
<b>Ethylbenzene:</b>	0.003	tons/y	EPA emission factors (e.g., AP-42)
<b>Formaldehyde:</b>	0.063	tons/y	EPA emission factors (e.g., AP-42)
<b>Lead:</b>	0.0	tons/y	EPA emission factors (e.g., AP-42)
<b>Manganese:</b>	0.007	tons/y	EPA emission factors (e.g., AP-42)
<b>Nickel:</b>	0.01	tons/y	EPA emission factors (e.g., AP-42)

<b>Nitrogen Dioxide:</b>	4.342	tons/y	EPA emission factors (e.g., AP-42)
<b>Particulate Matter (10 microns or less):</b>	0.585	tons/y	EPA emission factors (e.g., AP-42)
<b>Particulate Matter (2.5 microns or less):</b>	0.585	tons/y	EPA emission factors (e.g., AP-42)
<b>Propylene oxide:</b>	0.003	tons/y	EPA emission factors (e.g., AP-42)
<b>Sulfur Dioxide:</b>	0.301	tons/y	EPA emission factors (e.g., AP-42)
<b>Toluene; (Methyl benzene):</b>	0.012	tons/y	EPA emission factors (e.g., AP-42)
<b>Volatile Organic Compounds (VOC):</b>	0.189	tons/y	EPA emission factors (e.g., AP-42)
<b>Xylenes (total); (Xylol):</b>	0.006	tons/y	EPA emission factors (e.g., AP-42)

***Subject Item Comments***

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**Facility Annual Emissions - Subject Item Submittal Review**

Monday, March 18, 2019

**Agency ID:** 856**Facility Name:** Los Alamos National Laboratory**Organization Name:** U.S. Department of Energy National Nuclear Security Administration**Submittal Status:** 2018 Submittal (In Process)**Subject Item ID:** EQPT-166**Designation:** TA-3-22-CHP-1

Combustion Turbine + Heat

**Description:** recovery steam generator  
(HRSG)**Type:** Turbine**SCC:** Internal Combustion Engines,  
Electric Generation, Natural Gas,  
Turbine**GHG Reporting:** Reports GHG to EPA**Supplemental Parameters**

	<b>Amount</b>	<b>Unit of Measure</b>
<b>Fuel Type:</b>	Natural Gas	
<b>Materials Consumed:</b>	0.0	MM SCF
<b>Fuel Heating Value:</b>	0.0	MM BTU/MM SCF

**Operating Detail**

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

**Actual Pollutants**

<b>Pollutant</b>	<b>Amount</b>	<b>Unit of Measure</b>	<b>Calculation Method</b>
<b>Carbon Monoxide:</b>	0.0	tons/y	Design calculation
<b>Nitrogen Dioxide:</b>	0.0	tons/y	Design calculation
<b>Particulate Matter (10 microns or less):</b>	0.0	tons/y	Design calculation
<b>Particulate Matter (2.5 microns or less):</b>	0.0	tons/y	Design calculation
<b>Sulfur Dioxide:</b>	0.0	tons/y	Design calculation
<b>Volatile Organic Compounds (VOC):</b>	0.0	tons/y	Design calculation

**Subject Item Comments**

Unit has not been installed.