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Title: 2020 Emissions Inventory Report Electronic Submittal

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Intended for: Environmental Regulatory Document

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Memorandum

**Environmental Protection & Compliance Division
Compliance Programs Group**

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Thru: Margie Stockton, EPC-CP, MSJ798
From: Walt Whetham, EPC-CP, MS J798
Phone: 505-695-8056
Symbol: EPC-DO: 21-081
LA-UR: 21-22101
Date: **MAR 29 2021**

Subject: 2020 Emissions Inventory Electronic Submittal

Triad National Security, LLC submitted the 2020 Emissions Inventory Report for Los Alamos National Laboratory (LANL) to New Mexico Environmental Department (NMED) via online reporting tool, AEIR. This report is required by Title 20, Chapter 2, Part 73 of the New Mexico Administrative Code (20.2.73 NMAC), Notice of Intent and Emissions Inventory Requirements. The report was submitted on March 24, 2021, and meets New Mexico Environmental Department's deadline of April 1st.

Should you have any questions or comments regarding the information provided in this report, please contact Walt Whetham at (505) 695-8056 or walt@lanl.gov.

Attachment(s): Attachment 1 2020 Emissions Inventory Report Electronic Submittal

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ATTACHMENT 1
2020 Emissions Inventory Report
Electronic Submittal

EPC-DO: 21-081

LA-UR-21-22101

Date: **MAR 29 2021**

Type	ID	Designation	Description	Status	Complete
<input type="radio"/> Federal Agency	AI -856	2195R76	Los Alamos National Security, LLC	Active 06/12/2017	
<input type="radio"/> Asphalt Drum/Burner	EQPT-116	TA-60-BDM	Asphalt Plant Dryer - Natural Gas	Active 07/19/2005	✓
<input type="radio"/> Beryllium Work	ACT -2	TA-35-213	Beryllium Activity-Be Target Fabrication Facility - Machining TA-35-213	Active 05/10/2000	✓
<input type="radio"/> Beryllium Work	ACT -3	TA-3-141	Beryllium Activity-Be Test Facility - Machining TA-3-141	Active 05/10/2000	✓
<input type="radio"/> Beryllium Work	ACT -6	TA-55-PF4 (a)	Beryllium Activity-Plutonium Facility Beryllium machining, weld cutting / dressing and metallography	Active 04/14/2006	✓
<input type="radio"/> Beryllium Work	ACT -41	TA-3-66	Beryllium Activity-Sigma Facility-electroplating/metallography	Active 05/24/2010	✓
<input type="radio"/> Boiler	EQPT-11	TA-53-365-BHW-1	Boiler TA-53-365-BHW-1	Active 05/31/2001	✓
<input type="radio"/> Boiler	EQPT-12	TA-53-365-BHW-2	Boiler TA-53-365-BHW-2	Active 05/31/2001	✓
<input type="radio"/> Boiler	EQPT-24	TA-3-22-1 (gas)	Power Plant Boiler (pph, Natural Gas)	Active 07/26/2018	✓
<input type="radio"/> Boiler	EQPT-25	TA-3-22-2 (gas)	Power Plant Boiler (pph, Natural Gas)	Active 07/26/2018	✓
<input type="radio"/> Boiler	EQPT-26	TA-3-22-3 (gas)	Power Plant Boiler (pph, Natural Gas)	Active 07/26/2018	✓
<input type="radio"/> Boiler	EQPT-29	TA-55-6-BHW-1	Sellers Boiler TA-55-6-BHW-1	Active 12/17/2001	✓
<input type="radio"/> Boiler	EQPT-30	TA-55-6-BHW-2	Sellers Boiler TA-55-6-BHW-2	Active 12/17/2001	✓
<input type="radio"/> Boiler	EQPT-53	TA-16-1484-BS-2	Low NOx Boiler TA-16-1484-BS-2	Active 11/27/1996	✓
<input type="radio"/> Boiler	EQPT-90	RLUOB-BHW-1 (gas)	Boiler-CMRR-BHW-1	Active 03/01/2005	✓
<input type="radio"/> Boiler	EQPT-104	RLUOB-BHW-2 (gas)	Boiler-CMRR-BHW-2	Active 03/01/2005	✓
<input type="radio"/> Boiler	EQPT-105	RLUOB-BHW-3 (gas)	Boiler-CMRR-BHW-3	Active 03/01/2005	✓
<input type="radio"/> Boiler	EQPT-106	RLUOB-BHW-4 (gas)	Boiler-CMRR-BHW-4	Active 03/01/2005	✓
<input type="radio"/> Boiler	EQPT-107	B-5	Boiler-CMRR	Active 03/01/2005	✓
<input type="radio"/> Boiler	EQPT-134	TA-16-1484-BS-1	Low NOx Boiler TA-16-1484-BS-1	Active 11/27/1996	✓
<input type="radio"/> Boiler	EQPT-137	TA-3-22-2	Power Plant Boiler (pph, No. 2 fuel oil)	Active 07/26/2018	✓
<input type="radio"/> Boiler	EQPT-138	TA-3-22-3	Power Plant Boiler (pph, No. 2 fuel oil)	Active 07/26/2018	✓
<input type="radio"/> Boiler	EQPT-141	TA-3-22-1	Power Plant Boiler (pph, No. 2 fuel oil)	Active 07/26/2018	✓
<input type="radio"/> Boiler	EQPT-144	Boiler combined emissions	TA-16-1484-Bs-1,2; TA -53-365-BHW-1,2; TA-55-6-BHW-1,2; RLUOB-BHW-1,2,3,4	Active 03/05/2009	✓
<input type="radio"/> Boiler	EQPT-149	RLUOB-BHW-1 (oil)	Boiler-CMRR-BHW-1	Active 03/01/2005	✓
<input type="radio"/> Boiler	EQPT-150	RLUOB-BHW-2 (oil)	Boiler-CMRR-BHW-2	Active 03/01/2005	✓
<input type="radio"/> Boiler	EQPT-151	RLUOB-BHW-3 (oil)	Boiler-CMRR-BHW-3	Active 03/01/2005	✓
<input type="radio"/> Boiler	EQPT-152	RLUOB-BHW-4 (oil)	Boiler-CMRR-BHW-4	Active 03/01/2005	✓
<input type="radio"/> Boiler	EQPT-169	TA-3-22-4&5 (Oil TPY)	Power Plant Boiler (pph, No. 2 fuel oil)	Active 07/26/2018	✓
<input type="radio"/> Boiler	EQPT-170	TA-3-22-4&5 (gas TPY)	Power Plant Boiler (pph, Natural Gas)	Active 07/26/2018	✓
<input type="radio"/> Fugitives	RPNT-34	Facilitywide Open Burning	Fugitives - Open Burning	Active 02/27/2015	✓
<input type="radio"/> Fugitives	RPNT-35	TA-60-EVAP-1	Evaporative Sprayer for basin water	Active 02/03/2017	✓

<input type="radio"/>	Fugitives	RPNT-36	TA-60-EVAP-2	Evaporative Sprayer for basin water	Active 02/03/2017	✓
<input type="radio"/>	Fugitives	RPNT-37	TA-60-EVAP-3	Evaporative Sprayer for basin water	Active 02/03/2017	✓
<input type="radio"/>	Fugitives	RPNT-38	TA-60-EVAP-4	Evaporative Sprayer for basin water	Active 02/03/2017	✓
<input type="radio"/>	Fugitives	RPNT-39	TA-60-EVAP-5	Evaporative Sprayer for basin water	Active 02/03/2017	✓
<input type="radio"/>	Fugitives	RPNT-41	TA-60-EVAP-6	Evaporative Sprayer for basin water	Active 05/13/2019	✓
<input type="radio"/>	Internal combustion engine	EQPT-96	Standby-Generators	Diesel Generators	Active 03/01/2005	✓
<input type="radio"/>	Internal combustion engine	EQPT-119	TA-33-G-2	Kohler Diesel Generator TA-33, TA-36, TA-39	Active 04/22/2008	✓
<input type="radio"/>	Internal combustion engine	EQPT-120	TA-33-G-3	Kohler Diesel Generator TA-33, TA-36, TA-39	Active 09/18/2006	✓
<input type="radio"/>	Internal combustion engine	EQPT-128	RLUOB-GEN 1	Cummins Diesel Powered Generator and Engine - CMRR	Active 12/11/2007	✓
<input type="radio"/>	Internal combustion engine	EQPT-135	TA-33-G-4	Caterpillar Diesel Generator TA-33, TA-36, TA-39	Active 04/22/2008	✓
<input type="radio"/>	Internal combustion engine	EQPT-143	TA-55-GEN-3	CI-RICE Stationary Generator - Caterpillar 1335 hp	Active 11/30/2010	✓
<input type="radio"/>	Internal combustion engine	EQPT-146	TA-33-G-1P	Cummins Portable Diesel Generator	Active 12/12/2013	✓
<input type="radio"/>	Internal combustion engine	EQPT-147	TA-48-GEN-1	Cummins Diesel Powered Generator and Engine	Active 02/27/2015	✓
<input type="radio"/>	Internal combustion engine	EQPT-153	RLUOB-GEN 2	Cummins Diesel Powered Generator and Engine - CMRR	Active 12/11/2007	✓
<input type="radio"/>	Internal combustion engine	EQPT-154	RLUOB-GEN 3	Cummins Diesel Powered Generator and Engine - CMRR	Active 12/11/2007	✓
<input type="radio"/>	Internal combustion engine	EQPT-155	TA-55-GEN-2	CI-RICE Stationary Generator - Whisper Watt 40.2 hp	Active 02/27/2015	✓
<input type="radio"/>	Internal combustion engine	EQPT-156	TA-55-GEN-1	CI-RICE Stationary Generator - Whisper Watt 40.2 hp	Active 02/27/2015	✓
<input type="radio"/>	Internal combustion engine	EQPT-160	TA-50-184-GEN-1	Cummins Diesel Generator and Engine, exempt	Active 07/18/2018	✓
<input type="radio"/>	Internal combustion engine	EQPT-161	TA-55-GEN-4	Cummins Diesel Generator and Engine, exempt	Active 07/18/2018	✓
<input type="radio"/>	Internal combustion engine	EQPT-162	TA-55-GEN-5	Cummins Diesel Generator and Engine, exempt	Active 07/18/2018	✓
<input type="radio"/>	Research/Testing	ACT -7	LANL-FW-CHEM	R & D Activities - Labwide (031)	Active 05/31/2001	✓
<input type="radio"/>	Research/Testing	ACT -42	RLUOB-CHEM	Chemical Usage, Bldg. TA-55-400 (lab portion of RLUOB Bldg.)	Active 05/31/2001	✓
<input type="radio"/>	Shredder	EQPT-89	TA-52-11	Data Disintegrator/industrial Shredder	Active 10/22/2003	✓
<input type="radio"/>	Stack/Vent	RPNT-40	SSM from TA-3-22-CHP-1	Routine Start up Shut down Maintenance	Active 07/26/2018	✓
<input type="radio"/>	Turbine	EQPT-112	TA-3-22-CT-1	Combustion Turbine	Active 07/29/2006	✓
<input type="radio"/>	Turbine	EQPT-166	TA-3-22-CHP-1	Combustion Turbine + Heat recovery steam generator (HRSG)	Active 07/29/2006	✓

Submittal Comments

2000 character maximum

File Attachments

Please attach calculations following the requirements in the Emissions Inventory Guidance Document.

Facility Annual Emissions - Subject Item Submittal Review

Tuesday, February 23, 2021

Agency ID: 856

Facility Name: Los Alamos National Security, LLC

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

Submittal Status: 2020 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

General Information

Was this equipment active at any time during the year? Yes

Supplemental Parameters

	Amount	Unit of Measure
Fuel Type:	Natural Gas	
Input Materials Processed:	Asphalt (INPUT)	
Materials Consumed:	1.62	MM SCF
Fuel Heating Value:	1053.3	MM BTU/MM SCF
Percent Sulfur of Fuel:	0.001	percent

Operating Detail

	Value
Operating Time in Hours per Day:	8
Operating Time in Days per Week:	5
Operating Time in Weeks per Year:	26
Operating Time in Hours per Year:	23
Percent of Operation During Winter:	10
Percent of Operation During Spring:	30
Percent of Operation During Summer:	30
Percent of Operation During Fall:	30

Actual Pollutants

Pollutant	Amount	Unit of Measure	Calculation Method
Carbon Dioxide (combustion):	90.43	metric tons/y	40 CFR 98 Subpart C
Carbon Monoxide:	0.03	tons/y	EPA emission factors (e.g., AP-42)
Ethylbenzene:	0.001	tons/y	EPA emission factors (e.g., AP-42)
Lead:	0.0	tons/y	EPA emission factors (e.g., AP-42)
Methane (combustion):	0.002	metric tons/y	40 CFR 98 Subpart C
Nitrogen Dioxide:	0.001	tons/y	EPA emission factors (e.g., AP-42)
Nitrous Oxide (combustion):	0.0	metric tons/y	40 CFR 98 Subpart C
Particulate Matter (10 microns or less):	0.0	tons/y	Manufacturer Specification
Particulate Matter (2.5 microns or less):	0.0	tons/y	Manufacturer Specification
Sulfur Dioxide:	0.0	tons/y	EPA emission factors (e.g., AP-42)

Volatile Organic Compounds (VOC): 0.001 tons/y EPA emission factors (e.g., AP-42)

Subject Item Comments

Print

Close

Facility Annual Emissions - Subject Item Submittal Review

Tuesday, February 23, 2021

Agency ID: 856

Facility Name: Los Alamos National Security, LLC

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

Submittal Status: 2020 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

General Information

Was this equipment active at any time during the year? Yes

Supplemental Parameters

	Amount	Unit of Measure
Input Materials Processed:	Metal (INPUT)	
Materials Consumed:	0.0	tons

Operating Detail

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

Actual Pollutants

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

Subject Item Comments

Print Close

Facility Annual Emissions - Subject Item Submittal Review

Tuesday, February 23, 2021

Agency ID: 856

Facility Name: Los Alamos National Security, LLC

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

Submittal Status: 2020 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

General Information

Was this equipment active at any time during the year? Yes

Supplemental Parameters

	Amount	Unit of Measure
Input Materials Processed:	Metal (INPUT)	
Materials Consumed:	0.0	tons

Operating Detail

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

Actual Pollutants

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

Subject Item Comments

Facility Annual Emissions - Subject Item Submittal Review

Tuesday, February 23, 2021

Agency ID: 856

Facility Name: Los Alamos National Security, LLC

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

Submittal Status: 2020 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

General Information

Was this equipment active at any time during the year? No

Supplemental Parameters

	Amount	Unit of Measure
Input Materials Processed:		
Materials Consumed:		

Operating Detail

	Value
Operating Time in Hours per Day:	5
Operating Time in Days per Week:	7
Operating Time in Weeks per Year:	52
Operating Time in Hours per Year:	0
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
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Subject Item Comments

Facility Annual Emissions - Subject Item Submittal Review

Tuesday, February 23, 2021

Agency ID: 856

Facility Name: Los Alamos National Security, LLC

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

Submittal Status: 2020 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

General Information

Was this equipment active at any time during the year? No

Supplemental Parameters

	Amount	Unit of Measure
Input Materials Processed:		
Materials Consumed:		

Operating Detail

	Value
Operating Time in Hours per Day:	5
Operating Time in Days per Week:	7
Operating Time in Weeks per Year:	52
Operating Time in Hours per Year:	0
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
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Subject Item Comments

Print Close

Facility Annual Emissions - Subject Item Submittal Review

Tuesday, February 23, 2021

Agency ID: 856

Facility Name: Los Alamos National Security, LLC

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

Submittal Status: 2020 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, Electric Generation, Natural Gas, Boiler < 100 Million BTU, except tangential

General Information

Was this equipment active at any time during the year? Yes

Supplemental Parameters

	Amount	Unit of Measure
Fuel Type:	Natural Gas	
Input Materials Processed:	Natural Gas (INPUT)	
Materials Consumed:	9.544	MM SCF
Fuel Heating Value:	1053.3	MM BTU/MM SCF
Percent Sulfur of Fuel:	0.001	percent
Percent Ash of Fuel:	0.0	percent
Percent Carbon Content:	65.0	percent

Operating Detail

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

Actual Pollutants

Pollutant	Amount	Unit of Measure	Calculation Method
Carbon Dioxide (combustion):	533.373	metric tons/y	40 CFR 98 Subpart C
Carbon Monoxide:	0.401	tons/y	EPA emission factors (e.g., AP-42)
Formaldehyde:	0.0	tons/y	EPA emission factors (e.g., AP-42)
Hexane:	0.009	tons/y	EPA emission factors (e.g., AP-42)
Methane (combustion):	0.01	metric tons/y	40 CFR 98 Subpart C
Nitrogen Dioxide:	0.477	tons/y	EPA emission factors (e.g., AP-42)
Nitrous Oxide (combustion):	0.001	metric tons/y	40 CFR 98 Subpart C
Particulate Matter (10 microns or less):	0.036	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (2.5 microns or less):	0.036	tons/y	EPA emission factors (e.g., AP-42)

Sulfur Dioxide:	0.003	tons/y	EPA emission factors (e.g., AP-42)
Total HAP:	0.009	tons/y	EPA emission factors (e.g., AP-42)
Volatile Organic Compounds (VOC):	0.026	tons/y	EPA emission factors (e.g., AP-42)

Subject Item Comments

Print Close

Facility Annual Emissions - Subject Item Submittal Review

Tuesday, February 23, 2021

Agency ID: 856

Facility Name: Los Alamos National Security, LLC

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

Submittal Status: 2020 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, Electric Generation, Natural Gas, Boiler < 100 Million BTU, except tangential

General Information

Was this equipment active at any time during the year? Yes

Supplemental Parameters

	Amount	Unit of Measure
Fuel Type:	Natural Gas	
Input Materials Processed:	Natural Gas (INPUT)	
Materials Consumed:	9.544	MM SCF
Fuel Heating Value:	1053.3	MM BTU/MM SCF
Percent Sulfur of Fuel:	0.001	percent
Percent Ash of Fuel:	0.0	percent
Percent Carbon Content:	65.0	percent

Operating Detail

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

Actual Pollutants

Pollutant	Amount	Unit of Measure	Calculation Method
Carbon Dioxide (combustion):	533.373	metric tons/y	40 CFR 98 Subpart C
Carbon Monoxide:	0.401	tons/y	EPA emission factors (e.g., AP-42)
Formaldehyde:	0.0	tons/y	EPA emission factors (e.g., AP-42)
Hexane:	0.009	tons/y	EPA emission factors (e.g., AP-42)
Methane (combustion):	0.01	metric tons/y	40 CFR 98 Subpart C
Nitrogen Dioxide:	0.477	tons/y	EPA emission factors (e.g., AP-42)
Nitrous Oxide (combustion):	0.001	metric tons/y	40 CFR 98 Subpart C
Particulate Matter (10 microns or less):	0.036	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (2.5 microns or less):	0.036	tons/y	EPA emission factors (e.g., AP-42)

Sulfur Dioxide:	0.003	tons/y	EPA emission factors (e.g., AP-42)
Total HAP:	0.009	tons/y	EPA emission factors (e.g., AP-42)
Volatile Organic Compounds (VOC):	0.026	tons/y	EPA emission factors (e.g., AP-42)

Subject Item Comments

Print Close

Facility Annual Emissions - Subject Item Submittal Review

Tuesday, February 23, 2021

Agency ID: 856

Facility Name: Los Alamos National Security, LLC

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

Submittal Status: 2020 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, Electric Generation, Natural Gas, Boiler, >= 100 Million BTU/hr

General Information

Was this equipment active at any time during the year? Yes

Supplemental Parameters

	Amount	Unit of Measure
Fuel Type:	Natural Gas	
Input Materials Processed:	Natural Gas (INPUT)	
Materials Consumed:	1.154	MM SCF
Fuel Heating Value:	1053.3	MM BTU/MM SCF
Percent Sulfur of Fuel:	0.001	percent
Percent Ash of Fuel:	0.0	percent
Percent Carbon Content:	65.0	percent

Operating Detail

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

Actual Pollutants

Pollutant	Amount	Unit of Measure	Calculation Method
Carbon Dioxide (combustion):	64.478	metric tons/y	40 CFR 98 Subpart C
Carbon Monoxide:	0.023	tons/y	EPA emission factors (e.g., AP-42)
Formaldehyde:	0.0	tons/y	EPA emission factors (e.g., AP-42)
Hexane:	0.001	tons/y	EPA emission factors (e.g., AP-42)
Methane (combustion):	0.001	metric tons/y	40 CFR 98 Subpart C
Nitrogen Dioxide:	0.033	tons/y	EPA emission factors (e.g., AP-42)
Nitrous Oxide (combustion):	0.0	metric tons/y	40 CFR 98 Subpart C
Particulate Matter (10 microns or less):	0.004	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (2.5 microns or less):	0.004	tons/y	EPA emission factors (e.g., AP-42)

Sulfur Dioxide:	0.0	tons/y	EPA emission factors (e.g., AP-42)
Toluene; (Methyl benzene):	0.0	tons/y	EPA emission factors (e.g., AP-42)
Total HAP:	0.001	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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Facility Annual Emissions - Subject Item Submittal Review

Tuesday, February 23, 2021

Agency ID: 856

Facility Name: Los Alamos National Security, LLC

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

Submittal Status: 2020 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, Electric Generation, Natural Gas, Boiler, >= 100 Million BTU/hr

General Information

Was this equipment active at any time during the year? Yes

Supplemental Parameters

	Amount	Unit of Measure
Fuel Type:	Natural Gas	
Input Materials Processed:	Natural Gas (INPUT)	
Materials Consumed:	40.979	MM SCF
Fuel Heating Value:	1053.3	MM BTU/MM SCF
Percent Sulfur of Fuel:	0.001	percent
Percent Ash of Fuel:	0.0	percent
Percent Carbon Content:	65.0	percent

Operating Detail

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

Actual Pollutants

Pollutant	Amount	Unit of Measure	Calculation Method
Carbon Dioxide (combustion):	3472.037	metric tons/y	40 CFR 98 Subpart C
Carbon Monoxide:	1.242	tons/y	EPA emission factors (e.g., AP-42)
Formaldehyde:	0.002	tons/y	EPA emission factors (e.g., AP-42)
Hexane:	0.056	tons/y	EPA emission factors (e.g., AP-42)
Methane (combustion):	0.065	metric tons/y	40 CFR 98 Subpart C
Nitrogen Dioxide:	1.802	tons/y	EPA emission factors (e.g., AP-42)
Nitrous Oxide (combustion):	0.007	metric tons/y	40 CFR 98 Subpart C
Particulate Matter (10 microns or less):	0.236	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (2.5 microns or less):	0.236	tons/y	EPA emission factors (e.g., AP-42)

Sulfur Dioxide:	0.019	tons/y	EPA emission factors (e.g., AP-42)
Total HAP:	0.059	tons/y	EPA emission factors (e.g., AP-42)
Volatile Organic Compounds (VOC):	0.171	tons/y	EPA emission factors (e.g., AP-42)

Subject Item Comments

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Facility Annual Emissions - Subject Item Submittal Review

Tuesday, February 23, 2021

Agency ID: 856

Facility Name: Los Alamos National Security, LLC

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

Submittal Status: 2020 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, Electric Generation, Natural Gas, Boiler, >= 100 Million BTU/hr

General Information

Was this equipment active at any time during the year? Yes

Supplemental Parameters

	Amount	Unit of Measure
Fuel Type:	Natural Gas	
Input Materials Processed:	Natural Gas (INPUT)	
Materials Consumed:	110.921	MM SCF
Fuel Heating Value:	1053.3	MM BTU/MM SCF
Percent Sulfur of Fuel:	0.001	percent
Percent Ash of Fuel:	0.0	percent
Percent Carbon Content:	65.0	percent

Operating Detail

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

Actual Pollutants

Pollutant	Amount	Unit of Measure	Calculation Method
Carbon Dioxide (combustion):	15462.225	metric tons/y	40 CFR 98 Subpart C
Carbon Monoxide:	5.533	tons/y	EPA emission factors (e.g., AP-42)
Formaldehyde:	0.01	tons/y	EPA emission factors (e.g., AP-42)
Hexane:	0.249	tons/y	EPA emission factors (e.g., AP-42)
Methane (combustion):	0.291	metric tons/y	40 CFR 98 Subpart C
Nitrogen Dioxide:	8.023	tons/y	EPA emission factors (e.g., AP-42)
Nitrous Oxide (combustion):	0.029	metric tons/y	40 CFR 98 Subpart C
Particulate Matter (10 microns or less):	1.051	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (2.5 microns or less):	1.051	tons/y	EPA emission factors (e.g., AP-42)

Sulfur Dioxide:	0.083	tons/y	EPA emission factors (e.g., AP-42)
Total HAP:	0.261	tons/y	EPA emission factors (e.g., AP-42)
Volatile Organic Compounds (VOC):	0.761	tons/y	EPA emission factors (e.g., AP-42)

Subject Item Comments

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Facility Annual Emissions - Subject Item Submittal Review

Tuesday, February 23, 2021

Agency ID: 856

Facility Name: Los Alamos National Security, LLC

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

Submittal Status: 2020 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, Electric Generation, Natural Gas, Boiler < 100 Million BTU, except tangential

General Information

Was this equipment active at any time during the year? Yes

Supplemental Parameters

	Amount	Unit of Measure
Fuel Type:	Natural Gas	
Input Materials Processed:	Natural Gas (INPUT)	
Materials Consumed:	3.079	MM SCF
Fuel Heating Value:	1053.3	MM BTU/MM SCF
Percent Sulfur of Fuel:	0.001	percent
Percent Ash of Fuel:	0.0	percent
Percent Carbon Content:	65.0	percent

Operating Detail

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

Actual Pollutants

Pollutant	Amount	Unit of Measure	Calculation Method
Carbon Dioxide (combustion):	172.106	metric tons/y	40 CFR 98 Subpart C
Carbon Monoxide:	0.059	tons/y	EPA emission factors (e.g., AP-42)
Formaldehyde:	0.0	tons/y	EPA emission factors (e.g., AP-42)
Hexane:	0.003	tons/y	EPA emission factors (e.g., AP-42)
Methane (combustion):	0.003	metric tons/y	40 CFR 98 Subpart C
Nitrogen Dioxide:	0.212	tons/y	Actual stack test
Nitrous Oxide (combustion):	0.0	metric tons/y	40 CFR 98 Subpart C
Particulate Matter (10 microns or less):	0.022	tons/y	Manufacturer Specification
Particulate Matter (2.5 microns or less):	0.022	tons/y	Manufacturer Specification

Sulfur Dioxide:	0.001	tons/y	EPA emission factors (e.g., AP-42)
Total HAP:	0.003	tons/y	EPA emission factors (e.g., AP-42)
Volatile Organic Compounds (VOC):	0.009	tons/y	Manufacturer Specification

Subject Item Comments

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Facility Annual Emissions - Subject Item Submittal Review

Tuesday, February 23, 2021

Agency ID: 856

Facility Name: Los Alamos National Security, LLC

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

Submittal Status: 2020 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, Electric Generation, Natural Gas, Boiler < 100 Million BTU, except tangential

General Information

Was this equipment active at any time during the year? Yes

Supplemental Parameters

	Amount	Unit of Measure
Fuel Type:	Natural Gas	
Input Materials Processed:	Natural Gas (INPUT)	
Materials Consumed:	17.551	MM SCF
Fuel Heating Value:	1053.3	MM BTU/MM SCF
Percent Sulfur of Fuel:	0.001	percent
Percent Ash of Fuel:	0.0	percent
Percent Carbon Content:	65.0	percent

Operating Detail

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

Actual Pollutants

Pollutant	Amount	Unit of Measure	Calculation Method
Carbon Dioxide (combustion):	980.892	metric tons/y	40 CFR 98 Subpart C
Carbon Monoxide:	0.335	tons/y	EPA emission factors (e.g., AP-42)
Formaldehyde:	0.001	tons/y	EPA emission factors (e.g., AP-42)
Hexane:	0.016	tons/y	EPA emission factors (e.g., AP-42)
Lead:	0.0	tons/y	EPA emission factors (e.g., AP-42)
Methane (combustion):	0.019	metric tons/y	40 CFR 98 Subpart C
Nitrogen Dioxide:	1.211	tons/y	Actual stack test
Nitrous Oxide (combustion):	0.002	metric tons/y	40 CFR 98 Subpart C
Particulate Matter (10 microns or less):	0.125	tons/y	Manufacturer Specification

Particulate Matter (2.5 microns or less):	0.125	tons/y	Manufacturer Specification
Sulfur Dioxide:	0.005	tons/y	EPA emission factors (e.g., AP-42)
Total HAP:	0.017	tons/y	EPA emission factors (e.g., AP-42)
Volatile Organic Compounds (VOC):	0.052	tons/y	Manufacturer Specification

Subject Item Comments

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Facility Annual Emissions - Subject Item Submittal Review

Tuesday, February 23, 2021

Agency ID: 856

Facility Name: Los Alamos National Security, LLC

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

Submittal Status: 2020 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,
Commercial/Institutional,
Natural Gas, < 10 Million BTU/hr

General Information

Was this equipment active at any time during the year? Yes

Supplemental Parameters

	Amount	Unit of Measure
Fuel Type:	Natural Gas	
Input Materials Processed:	Natural Gas (INPUT)	
Materials Consumed:	8.518	MM SCF
Fuel Heating Value:	1053.3	MM BTU/MM SCF
Percent Sulfur of Fuel:	0.001	percent
Percent Ash of Fuel:	0.0	percent
Percent Carbon Content:	65.0	percent

Operating Detail

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

Actual Pollutants

Pollutant	Amount	Unit of Measure	Calculation Method
Carbon Dioxide (combustion):	476.059	metric tons/y	40 CFR 98 Subpart C
Carbon Monoxide:	0.158	tons/y	Design calculation
Hexane:	0.008	tons/y	Design calculation
Lead:	0.0	tons/y	Design calculation
Methane (combustion):	0.009	metric tons/y	40 CFR 98 Subpart C
Nitrogen Dioxide:	0.158	tons/y	Design calculation
Nitrous Oxide (combustion):	0.001	metric tons/y	40 CFR 98 Subpart C
Particulate Matter (10 microns or less):	0.032	tons/y	Design calculation
Particulate Matter (2.5 microns or less):	0.032	tons/y	Design calculation

Sulfur Dioxide: 0.003 tons/y Design calculation

Total HAP: 0.008 tons/y EPA emission factors (e.g., AP-42)

Volatile Organic Compounds (VOC): 0.023 tons/y Design calculation

Subject Item Comments

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Facility Annual Emissions - Subject Item Submittal Review

Tuesday, February 23, 2021

Agency ID: 856

Facility Name: Los Alamos National Security, LLC

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

Submittal Status: 2020 Submittal (In Process)

Subject Item ID: EQPT-90

Designation: RLUOB-BHW-1 (gas)

Description: Boiler-CMRR-BHW-1

Type: Boiler

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

General Information

Was this equipment active at any time during the year? Yes

Supplemental Parameters

	Amount	Unit of Measure
Fuel Type:	Natural Gas	
Input Materials Processed:	Natural Gas (INPUT)	
Materials Consumed:	0.885	MM SCF
Fuel Heating Value:	1053.3	MM BTU/MM SCF
Percent Sulfur of Fuel:	0.001	percent
Percent Ash of Fuel:	0.0	percent
Percent Carbon Content:	65.0	percent

Operating Detail

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

Actual Pollutants

Pollutant	Amount	Unit of Measure	Calculation Method
Carbon Dioxide (combustion):	49.461	metric tons/y	40 CFR 98 Subpart C
Carbon Monoxide:	0.017	tons/y	EPA emission factors (e.g., AP-42)
Hexane:	0.001	tons/y	EPA emission factors (e.g., AP-42)
Methane (combustion):	0.001	metric tons/y	40 CFR 98 Subpart C
Nitrogen Dioxide:	0.013	tons/y	EPA emission factors (e.g., AP-42)
Nitrous Oxide (combustion):	0.0	metric tons/y	40 CFR 98 Subpart C
Particulate Matter (10 microns or less):	0.002	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (2.5 microns or less):	0.002	tons/y	EPA emission factors (e.g., AP-42)
Sulfur Dioxide:	0.0	tons/y	EPA emission factors (e.g., AP-42)
Total HAP:	0.001	tons/y	EPA emission factors (e.g., AP-42)

Volatile Organic Compounds (VOC): 0.011 tons/y EPA emission factors (e.g., AP-42)

Subject Item Comments

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Facility Annual Emissions - Subject Item Submittal Review

Tuesday, February 23, 2021

Agency ID: 856

Facility Name: Los Alamos National Security, LLC

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

Submittal Status: 2020 Submittal (In Process)

Subject Item ID: EQPT-104

Designation: RLUOB-BHW-2 (gas)

Description: Boiler-CMRR-BHW-2

Type: Boiler

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

General Information

Was this equipment active at any time during the year? Yes

Supplemental Parameters

	Amount	Unit of Measure
Fuel Type:	Natural Gas	
Input Materials Processed:	Natural Gas (INPUT)	
Materials Consumed:	0.885	MM SCF
Fuel Heating Value:	1053.3	MM BTU/MM SCF
Percent Sulfur of Fuel:	0.001	percent
Percent Ash of Fuel:	0.0	percent
Percent Carbon Content:	65.0	percent

Operating Detail

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

Actual Pollutants

Pollutant	Amount	Unit of Measure	Calculation Method
Carbon Dioxide (combustion):	49.461	metric tons/y	40 CFR 98 Subpart C
Carbon Monoxide:	0.017	tons/y	EPA emission factors (e.g., AP-42)
Hexane:	0.001	tons/y	EPA emission factors (e.g., AP-42)
Methane (combustion):	0.001	metric tons/y	40 CFR 98 Subpart C
Nitrogen Dioxide:	0.013	tons/y	EPA emission factors (e.g., AP-42)
Nitrous Oxide (combustion):	0.0	metric tons/y	40 CFR 98 Subpart C
Particulate Matter (10 microns or less):	0.002	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (2.5 microns or less):	0.002	tons/y	EPA emission factors (e.g., AP-42)
Sulfur Dioxide:	0.0	tons/y	EPA emission factors (e.g., AP-42)
Total HAP:	0.001	tons/y	EPA emission factors (e.g., AP-42)

Volatile Organic Compounds (VOC): 0.011 tons/y EPA emission factors (e.g., AP-42)

Subject Item Comments

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Facility Annual Emissions - Subject Item Submittal Review

Tuesday, February 23, 2021

Agency ID: 856

Facility Name: Los Alamos National Security, LLC

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

Submittal Status: 2020 Submittal (In Process)

Subject Item ID: EQPT-105

Designation: RLUOB-BHW-3 (gas)

Description: Boiler-CMRR-BHW-3

Type: Boiler

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

General Information

Was this equipment active at any time during the year? Yes

Supplemental Parameters

	Amount	Unit of Measure
Fuel Type:	Natural Gas	
Input Materials Processed:	Natural Gas (INPUT)	
Materials Consumed:	0.885	MM SCF
Fuel Heating Value:	1053.3	MM BTU/MM SCF
Percent Sulfur of Fuel:	0.001	percent
Percent Ash of Fuel:	0.0	percent
Percent Carbon Content:	65.0	percent

Operating Detail

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

Actual Pollutants

Pollutant	Amount	Unit of Measure	Calculation Method
Carbon Dioxide (combustion):	49.461	metric tons/y	40 CFR 98 Subpart C
Carbon Monoxide:	0.017	tons/y	EPA emission factors (e.g., AP-42)
Hexane:	0.001	tons/y	EPA emission factors (e.g., AP-42)
Methane (combustion):	0.001	metric tons/y	40 CFR 98 Subpart C
Nitrogen Dioxide:	0.013	tons/y	EPA emission factors (e.g., AP-42)
Nitrous Oxide (combustion):	0.0	metric tons/y	40 CFR 98 Subpart C
Particulate Matter (10 microns or less):	0.002	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (2.5 microns or less):	0.002	tons/y	EPA emission factors (e.g., AP-42)
Sulfur Dioxide:	0.0	tons/y	EPA emission factors (e.g., AP-42)
Total HAP:	0.001	tons/y	EPA emission factors (e.g., AP-42)

Volatile Organic Compounds (VOC): 0.011 tons/y EPA emission factors (e.g., AP-42)

Subject Item Comments

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Facility Annual Emissions - Subject Item Submittal Review

Tuesday, February 23, 2021

Agency ID: 856

Facility Name: Los Alamos National Security, LLC

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

Submittal Status: 2020 Submittal (In Process)

Subject Item ID: EQPT-106

Designation: RLUOB-BHW-4 (gas)

Description: Boiler-CMRR-BHW-4

Type: Boiler

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

General Information

Was this equipment active at any time during the year? No

Supplemental Parameters

	Amount	Unit of Measure
Fuel Type:		
Input Materials Processed:		
Materials Consumed:		
Fuel Heating Value:		
Percent Sulfur of Fuel:		percent
Percent Ash of Fuel:		percent
Percent Carbon Content:		percent

Operating Detail

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

Actual Pollutants

Pollutant	Amount	Unit of Measure	Calculation Method
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Subject Item Comments

This unit has not been built.

Facility Annual Emissions - Subject Item Submittal Review

Tuesday, February 23, 2021

Agency ID: 856

Facility Name: Los Alamos National Security, LLC

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

Submittal Status: 2020 Submittal (In Process)

Subject Item ID: EQPT-107

Designation: B-5

Description: Boiler-CMRR

Type: Boiler

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

General Information

Was this equipment active at any time during the year? No

Supplemental Parameters

	Amount	Unit of Measure
Fuel Type:		
Input Materials Processed:		
Materials Consumed:		
Fuel Heating Value:		
Percent Sulfur of Fuel:		percent
Percent Ash of Fuel:		percent
Percent Carbon Content:		percent

Operating Detail

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

Actual Pollutants

Pollutant	Amount	Unit of Measure	Calculation Method
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Subject Item Comments

This unit has not been built.

Facility Annual Emissions - Subject Item Submittal Review

Tuesday, February 23, 2021

Agency ID: 856

Facility Name: Los Alamos National Security, LLC

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

Submittal Status: 2020 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,
Commercial/Institutional,
Natural Gas, < 10 Million BTU/hr

General Information

Was this equipment active at any time during the year? Yes

Supplemental Parameters

	Amount	Unit of Measure
Fuel Type:	Natural Gas	
Input Materials Processed:	Natural Gas (INPUT)	
Materials Consumed:	8.518	MM SCF
Fuel Heating Value:	1053.3	MM BTU/MM SCF
Percent Sulfur of Fuel:	0.001	percent
Percent Ash of Fuel:	0.0	percent
Percent Carbon Content:	65.0	percent

Operating Detail

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

Actual Pollutants

Pollutant	Amount	Unit of Measure	Calculation Method
Carbon Dioxide (combustion):	476.059	metric tons/y	40 CFR 98 Subpart C
Carbon Monoxide:	0.158	tons/y	Design calculation
Hexane:	0.008	tons/y	Design calculation
Lead:	0.0	tons/y	Design calculation
Methane (combustion):	0.009	metric tons/y	40 CFR 98 Subpart C
Nitrogen Dioxide:	0.158	tons/y	Design calculation
Nitrous Oxide (combustion):	0.001	metric tons/y	40 CFR 98 Subpart C
Particulate Matter (10 microns or less):	0.032	tons/y	Design calculation
Particulate Matter (2.5 microns or less):	0.032	tons/y	Design calculation

Sulfur Dioxide: 0.003 tons/y Design calculation

Total HAP: 0.008 tons/y EPA emission factors (e.g., AP-42)

Volatile Organic Compounds (VOC): 0.023 tons/y Design calculation

Subject Item Comments

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Facility Annual Emissions - Subject Item Submittal Review

Tuesday, February 23, 2021

Agency ID: 856

Facility Name: Los Alamos National Security, LLC

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

Submittal Status: 2020 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, Electric Generation, Distillate Oil, Grade 1 and 2 Oil: Boiler

General Information

Was this equipment active at any time during the year? No

Supplemental Parameters

	Amount	Unit of Measure
Fuel Type:		
Input Materials Processed:		
Materials Consumed:		
Fuel Heating Value:		
Percent Sulfur of Fuel:		percent
Percent Ash of Fuel:		percent
Percent Carbon Content:		percent

Operating Detail

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

Actual Pollutants

Pollutant	Amount	Unit of Measure	Calculation Method
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Subject Item Comments

This unit did not operate on fuel oil in 2020.

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Facility Annual Emissions - Subject Item Submittal Review

Tuesday, February 23, 2021

Agency ID: 856

Facility Name: Los Alamos National Security, LLC

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

Submittal Status: 2020 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, Electric Generation, Distillate Oil, Grade 1 and 2 Oil: Boiler

General Information

Was this equipment active at any time during the year? No

Supplemental Parameters

	Amount	Unit of Measure
Fuel Type:		
Input Materials Processed:		
Materials Consumed:		
Fuel Heating Value:		
Percent Sulfur of Fuel:		percent
Percent Ash of Fuel:		percent
Percent Carbon Content:		percent

Operating Detail

	Value
Operating Time in Hours per Day:	8
Operating Time in Days per Week:	2
Operating Time in Weeks per Year:	5
Operating Time in Hours per Year:	0
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
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Subject Item Comments

This unit did not operate on fuel oil in 2020.

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Facility Annual Emissions - Subject Item Submittal Review

Tuesday, February 23, 2021

Agency ID: 856

Facility Name: Los Alamos National Security, LLC

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

Submittal Status: 2020 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, Electric Generation, Natural Gas, Boiler, >= 100 Million BTU/hr

General Information

Was this equipment active at any time during the year? No

Supplemental Parameters

	Amount	Unit of Measure
Fuel Type:		
Input Materials Processed:		
Materials Consumed:		
Fuel Heating Value:		
Percent Sulfur of Fuel:		percent
Percent Ash of Fuel:		percent
Percent Carbon Content:		percent

Operating Detail

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

Actual Pollutants

Pollutant	Amount	Unit of Measure	Calculation Method
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Subject Item Comments

This unit did not operate on fuel oil in 2020.

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Facility Annual Emissions - Subject Item Submittal Review

Tuesday, February 23, 2021

Agency ID: 856

Facility Name: Los Alamos National Security, LLC

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

Submittal Status: 2020 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, Electric
Generation, Natural Gas, Boiler,
>= 100 Million BTU/hr

General Information

Was this equipment active at any time during the year? No

Supplemental Parameters

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

Operating Detail

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

Actual Pollutants

Pollutant	Amount	Unit of Measure	Calculation Method
Carbon Monoxide:	0	tons/y	null
Nitrogen Dioxide:	0	tons/y	null
Particulate Matter (10 microns or less):	0	tons/y	null
Particulate Matter (2.5 microns or less):	0	tons/y	null
Sulfur Dioxide:	0	tons/y	null
Volatile Organic Compounds (VOC):	0	tons/y	null

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 other facility IDs. In order to avoid counting the emissions twice, NMED asked us to enter zeros for this facility ID.

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Facility Annual Emissions - Subject Item Submittal Review

Tuesday, February 23, 2021

Agency ID: 856

Facility Name: Los Alamos National Security, LLC

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

Submittal Status: 2020 Submittal (In Process)

Subject Item ID: EQPT-149

Designation: RLUOB-BHW-1 (oil)

Description: Boiler-CMRR-BHW-1

Type: Boiler

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

General Information

Was this equipment active at any time during the year? No

Supplemental Parameters

	Amount	Unit of Measure
Fuel Type:		
Input Materials Processed:		
Materials Consumed:		
Fuel Heating Value:		
Percent Sulfur of Fuel:		percent
Percent Ash of Fuel:		percent
Percent Carbon Content:		percent

Operating Detail

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

Actual Pollutants

Pollutant	Amount	Unit of Measure	Calculation Method
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Subject Item Comments

The unit did not operate on fuel oil in 2020.

Facility Annual Emissions - Subject Item Submittal Review

Tuesday, February 23, 2021

Agency ID: 856

Facility Name: Los Alamos National Security, LLC

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

Submittal Status: 2020 Submittal (In Process)

Subject Item ID: EQPT-150

Designation: RLUOB-BHW-2 (oil)

Description: Boiler-CMRR-BHW-2

Type: Boiler

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

General Information

Was this equipment active at any time during the year? No

Supplemental Parameters

	Amount	Unit of Measure
Fuel Type:		
Input Materials Processed:		
Materials Consumed:		
Fuel Heating Value:		
Percent Sulfur of Fuel:		percent
Percent Ash of Fuel:		percent
Percent Carbon Content:		percent

Operating Detail

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

Actual Pollutants

Pollutant	Amount	Unit of Measure	Calculation Method
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Subject Item Comments

The unit did not operate on fuel oil in 2020.

Facility Annual Emissions - Subject Item Submittal Review

Tuesday, February 23, 2021

Agency ID: 856

Facility Name: Los Alamos National Security, LLC

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

Submittal Status: 2020 Submittal (In Process)

Subject Item ID: EQPT-151

Designation: RLUOB-BHW-3 (oil)

Description: Boiler-CMRR-BHW-3

Type: Boiler

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

General Information

Was this equipment active at any time during the year? No

Supplemental Parameters

	Amount	Unit of Measure
Fuel Type:		
Input Materials Processed:		
Materials Consumed:		
Fuel Heating Value:		
Percent Sulfur of Fuel:		percent
Percent Ash of Fuel:		percent
Percent Carbon Content:		percent

Operating Detail

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

Actual Pollutants

Pollutant	Amount	Unit of Measure	Calculation Method
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Subject Item Comments

The unit did not operate on fuel oil in 2020.

Facility Annual Emissions - Subject Item Submittal Review

Tuesday, February 23, 2021

Agency ID: 856

Facility Name: Los Alamos National Security, LLC

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

Submittal Status: 2020 Submittal (In Process)

Subject Item ID: EQPT-152

Designation: RLUOB-BHW-4 (oil)

Description: Boiler-CMRR-BHW-4

Type: Boiler

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

General Information

Was this equipment active at any time during the year? No

Supplemental Parameters

	Amount	Unit of Measure
Fuel Type:		
Input Materials Processed:		
Materials Consumed:		
Fuel Heating Value:		
Percent Sulfur of Fuel:		percent
Percent Ash of Fuel:		percent
Percent Carbon Content:		percent

Operating Detail

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

Actual Pollutants

Pollutant	Amount	Unit of Measure	Calculation Method
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Subject Item Comments

The unit did not operate on fuel oil in 2020.

Facility Annual Emissions - Subject Item Submittal Review

Tuesday, February 23, 2021

Agency ID: 856

Facility Name: Los Alamos National Security, LLC

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

Submittal Status: 2020 Submittal (In Process)

Subject Item ID: EQPT-169

Designation: TA-3-22-4&5 (Oil TPY)

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

Type: Boiler

SCC: External Combustion, Electric Generation, Distillate Oil, Grade 1 and 2 Oil: Boiler

General Information

Was this equipment active at any time during the year? No

Supplemental Parameters

	Amount	Unit of Measure
Fuel Type:		
Input Materials Processed:		
Materials Consumed:		
Fuel Heating Value:		
Percent Sulfur of Fuel:		percent
Percent Ash of Fuel:		percent
Percent Carbon Content:		percent

Operating Detail

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

Actual Pollutants

Pollutant	Amount	Unit of Measure	Calculation Method
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Subject Item Comments

Boilers 4 and 5 have not been built.

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Facility Annual Emissions - Subject Item Submittal Review

Tuesday, February 23, 2021

Agency ID: 856

Facility Name: Los Alamos National Security, LLC

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

Submittal Status: 2020 Submittal (In Process)

Subject Item ID: EQPT-170

Designation: TA-3-22-4&5 (gas TPY)

Description: Power Plant Boiler (pph, Natural Gas)

Type: Boiler

SCC: External Combustion, Electric Generation, Natural Gas, Boiler, >= 100 Million BTU/hr

General Information

Was this equipment active at any time during the year? No

Supplemental Parameters

	Amount	Unit of Measure
Fuel Type:		
Input Materials Processed:		
Materials Consumed:		
Fuel Heating Value:		
Percent Sulfur of Fuel:		percent
Percent Ash of Fuel:		percent
Percent Carbon Content:		percent

Operating Detail

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

Actual Pollutants

Pollutant	Amount	Unit of Measure	Calculation Method
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Subject Item Comments

Boilers 4 and 5 have not been built.

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Facility Annual Emissions - Subject Item Submittal Review

Tuesday, February 23, 2021

Agency ID: 856

Facility Name: Los Alamos National Security, LLC

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

Submittal Status: 2020 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

General Information

Was this equipment active at any time during the year? No

Supplemental Parameters

Operating Detail

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

Actual Pollutants

Pollutant	Amount	Unit of Measure	Calculation Method
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Subject Item Comments

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Facility Annual Emissions - Subject Item Submittal Review

Tuesday, February 23, 2021

Agency ID: 856

Facility Name: Los Alamos National Security, LLC

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

Submittal Status: 2020 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

General Information

Was this equipment active at any time during the year? Yes

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
Particulate Matter (10 microns or less):	0.0	tons/y	Design calculation
Particulate Matter (2.5 microns or less):	0.0	tons/y	Design calculation
Total HAP:	0.0	tons/y	Design calculation

Subject Item Comments

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Facility Annual Emissions - Subject Item Submittal Review

Tuesday, February 23, 2021

Agency ID: 856

Facility Name: Los Alamos National Security, LLC

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

Submittal Status: 2020 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

General Information

Was this equipment active at any time during the year? Yes

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
Particulate Matter (10 microns or less):	0.0	tons/y	Design calculation
Particulate Matter (2.5 microns or less):	0.0	tons/y	Design calculation
Total HAP:	0.0	tons/y	Design calculation

Subject Item Comments

Print Close

Facility Annual Emissions - Subject Item Submittal Review

Tuesday, February 23, 2021

Agency ID: 856

Facility Name: Los Alamos National Security, LLC

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

Submittal Status: 2020 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

General Information

Was this equipment active at any time during the year? No

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:	0
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
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Subject Item Comments

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Facility Annual Emissions - Subject Item Submittal Review

Tuesday, February 23, 2021

Agency ID: 856

Facility Name: Los Alamos National Security, LLC

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

Submittal Status: 2020 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

General Information

Was this equipment active at any time during the year? Yes

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
Particulate Matter (10 microns or less):	0.0	tons/y	Design calculation
Particulate Matter (2.5 microns or less):	0.0	tons/y	Design calculation
Total HAP:	0.0	tons/y	Design calculation

Subject Item Comments

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Facility Annual Emissions - Subject Item Submittal Review

Tuesday, February 23, 2021

Agency ID: 856

Facility Name: Los Alamos National Security, LLC

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

Submittal Status: 2020 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

General Information

Was this equipment active at any time during the year? Yes

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
Particulate Matter (10 microns or less):	0.0	tons/y	Design calculation
Particulate Matter (2.5 microns or less):	0.0	tons/y	Design calculation
Total HAP:	0.0	tons/y	Design calculation

Subject Item Comments

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Facility Annual Emissions - Subject Item Submittal Review

Tuesday, February 23, 2021

Agency ID: 856

Facility Name: Los Alamos National Security, LLC

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

Submittal Status: 2020 Submittal (In Process)

Subject Item ID: RPNT-41

Designation: TA-60-EVAP-6

Description: Evaporative Sprayer for basin water

Type: Fugitives

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

General Information

Was this equipment active at any time during the year? No

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:	0
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
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Subject Item Comments

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Facility Annual Emissions - Subject Item Submittal Review

Tuesday, February 23, 2021

Agency ID: 856

Facility Name: Los Alamos National Security, LLC

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

Submittal Status: 2020 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

General Information

Was this equipment active at any time during the year? Yes

Supplemental Parameters

	Amount	Unit of Measure
Fuel Type:	Diesel	
Materials Consumed:	28000.0	gal
Fuel Heating Value:	138.0	MM BTU/M gal
Percent Sulfur of Fuel:	0.001	percent
Percent Ash of Fuel:	0.01	percent
Percent Carbon Content:	83.0	percent

Operating Detail

	Value
Operating Time in Hours per Day:	24
Operating Time in Days per Week:	7
Operating Time in Weeks per Year:	52
Operating Time in Hours per Year:	612
Percent of Operation During Winter:	25
Percent of Operation During Spring:	25
Percent of Operation During Summer:	25
Percent of Operation During Fall:	25

Actual Pollutants

Pollutant	Amount	Unit of Measure	Calculation Method
Carbon Dioxide (combustion):	288.886	metric tons/y	40 CFR 98 Subpart C
Carbon Monoxide:	1.478	tons/y	EPA emission factors (e.g., AP-42)
Methane (combustion):	0.012	metric tons/y	40 CFR 98 Subpart C
Nitrogen Dioxide:	6.645	tons/y	EPA emission factors (e.g., AP-42)
Nitrous Oxide (combustion):	0.002	metric tons/y	40 CFR 98 Subpart C
Particulate Matter (10 microns or less):	0.256	tons/y	EPA emission factors (e.g., AP-42)
Sulfur Dioxide:	0.178	tons/y	EPA emission factors (e.g., AP-42)
Total HAP:	0.002	tons/y	EPA emission factors (e.g., AP-42)
Volatile Organic Compounds (VOC):	0.256	tons/y	EPA emission factors (e.g., AP-42)

Subject Item Comments

Facility Annual Emissions - Subject Item Submittal Review

Tuesday, February 23, 2021

Agency ID: 856

Facility Name: Los Alamos National Security, LLC

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

Submittal Status: 2020 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

General Information

Was this equipment active at any time during the year? No

Supplemental Parameters

	Amount	Unit of Measure
Fuel Type:		
Materials Consumed:		
Fuel Heating Value:		
Percent Sulfur of Fuel:		percent
Percent Ash of Fuel:		percent
Percent Carbon Content:		percent

Operating Detail

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

Actual Pollutants

Pollutant	Amount	Unit of Measure	Calculation Method
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Subject Item Comments

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Facility Annual Emissions - Subject Item Submittal Review

Tuesday, February 23, 2021

Agency ID: 856

Facility Name: Los Alamos National Security, LLC

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

Submittal Status: 2020 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

General Information

Was this equipment active at any time during the year? No

Supplemental Parameters

	Amount	Unit of Measure
Fuel Type:		
Materials Consumed:		
Fuel Heating Value:		
Percent Sulfur of Fuel:		percent
Percent Ash of Fuel:		percent
Percent Carbon Content:		percent

Operating Detail

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

Actual Pollutants

Pollutant	Amount	Unit of Measure	Calculation Method
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Subject Item Comments

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Facility Annual Emissions - Subject Item Submittal Review

Tuesday, February 23, 2021

Agency ID: 856

Facility Name: Los Alamos National Security, LLC

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

Submittal Status: 2020 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

General Information

Was this equipment active at any time during the year? No

Supplemental Parameters

	Amount	Unit of Measure
Fuel Type:		
Materials Consumed:		
Fuel Heating Value:		
Percent Sulfur of Fuel:		percent
Percent Ash of Fuel:		percent
Percent Carbon Content:		percent

Operating Detail

	Value
Operating Time in Hours per Day:	24
Operating Time in Days per Week:	7
Operating Time in Weeks per Year:	52
Operating Time in Hours per Year:	0
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
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Subject Item Comments

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Facility Annual Emissions - Subject Item Submittal Review

Tuesday, February 23, 2021

Agency ID: 856

Facility Name: Los Alamos National Security, LLC

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

Submittal Status: 2020 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

General Information

Was this equipment active at any time during the year? Yes

Supplemental Parameters

	Amount	Unit of Measure
Fuel Type:	Diesel	
Materials Consumed:	2859.8	gal
Fuel Heating Value:	138.0	MM BTU/M gal
Percent Sulfur of Fuel:	0.001	percent
Percent Ash of Fuel:	0.01	percent
Percent Carbon Content:	83.0	percent

Operating Detail

	Value
Operating Time in Hours per Day:	24
Operating Time in Days per Week:	7
Operating Time in Weeks per Year:	52
Operating Time in Hours per Year:	181
Percent of Operation During Winter:	25
Percent of Operation During Spring:	25
Percent of Operation During Summer:	25
Percent of Operation During Fall:	25

Actual Pollutants

Pollutant	Amount	Unit of Measure	Calculation Method
Carbon Dioxide (combustion):	29.188	metric tons/y	40 CFR 98 Subpart C
Carbon Monoxide:	0.64	tons/y	Design calculation
Methane (combustion):	0.001	metric tons/y	40 CFR 98 Subpart C
Nitrogen Dioxide:	1.061	tons/y	Design calculation
Nitrous Oxide (combustion):	0.0	metric tons/y	40 CFR 98 Subpart C
Particulate Matter (10 microns or less):	0.073	tons/y	EPA emission factors (e.g., AP-42)
Sulfur Dioxide:	0.073	tons/y	EPA emission factors (e.g., AP-42)
Total HAP:	0.0	tons/y	EPA emission factors (e.g., AP-42)
Volatile Organic Compounds (VOC):	0.084	tons/y	EPA emission factors (e.g., AP-42)

Subject Item Comments

Facility Annual Emissions - Subject Item Submittal Review

Tuesday, February 23, 2021

Agency ID: 856

Facility Name: Los Alamos National Security, LLC

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

Submittal Status: 2020 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

General Information

Was this equipment active at any time during the year? Yes

Supplemental Parameters

	Amount	Unit of Measure
Fuel Type:	Diesel	
Materials Consumed:	303.4	gal
Fuel Heating Value:	138.0	MM BTU/M gal
Percent Sulfur of Fuel:	0.001	percent
Percent Ash of Fuel:	0.01	percent
Percent Carbon Content:	83.0	percent

Operating Detail

	Value
Operating Time in Hours per Day:	8
Operating Time in Days per Week:	5
Operating Time in Weeks per Year:	20
Operating Time in Hours per Year:	19
Percent of Operation During Winter:	25
Percent of Operation During Spring:	25
Percent of Operation During Summer:	25
Percent of Operation During Fall:	25

Actual Pollutants

Pollutant	Amount	Unit of Measure	Calculation Method
Carbon Dioxide (combustion):	3.096	metric tons/y	40 CFR 98 Subpart C
Carbon Monoxide:	0.09	tons/y	EPA emission factors (e.g., AP-42)
Methane (combustion):	0.0	metric tons/y	40 CFR 98 Subpart C
Nitrogen Dioxide:	0.41	tons/y	EPA emission factors (e.g., AP-42)
Nitrous Oxide (combustion):	0.0	metric tons/y	40 CFR 98 Subpart C
Particulate Matter (10 microns or less):	0.013	tons/y	EPA emission factors (e.g., AP-42)
Sulfur Dioxide:	0.007	tons/y	EPA emission factors (e.g., AP-42)
Total HAP:	0.0	tons/y	EPA emission factors (e.g., AP-42)
Volatile Organic Compounds (VOC):	0.013	tons/y	EPA emission factors (e.g., AP-42)

Subject Item Comments

Facility Annual Emissions - Subject Item Submittal Review

Tuesday, February 23, 2021

Agency ID: 856

Facility Name: Los Alamos National Security, LLC

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

Submittal Status: 2020 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

General Information

Was this equipment active at any time during the year? Yes

Supplemental Parameters

	Amount	Unit of Measure
Fuel Type:	Diesel	
Materials Consumed:	5762.7	gal
Fuel Heating Value:	138.0	MM BTU/M gal
Percent Sulfur of Fuel:	0.001	percent
Percent Ash of Fuel:	0.01	percent
Percent Carbon Content:	83.0	percent

Operating Detail

	Value
Operating Time in Hours per Day:	2
Operating Time in Days per Week:	2
Operating Time in Weeks per Year:	26
Operating Time in Hours per Year:	303
Percent of Operation During Winter:	0
Percent of Operation During Spring:	0
Percent of Operation During Summer:	50
Percent of Operation During Fall:	50

Actual Pollutants

Pollutant	Amount	Unit of Measure	Calculation Method
Carbon Dioxide (combustion):	58.817	metric tons/y	40 CFR 98 Subpart C
Carbon Monoxide:	0.339	tons/y	EPA emission factors (e.g., AP-42)
Methane (combustion):	0.002	metric tons/y	40 CFR 98 Subpart C
Nitrogen Dioxide:	3.391	tons/y	EPA emission factors (e.g., AP-42)
Nitrous Oxide (combustion):	0.0	metric tons/y	40 CFR 98 Subpart C
Particulate Matter (10 microns or less):	0.104	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (2.5 microns or less):	0.104	tons/y	EPA emission factors (e.g., AP-42)
Sulfur Dioxide:	0.09	tons/y	EPA emission factors (e.g., AP-42)
Total HAP:	0.001	tons/y	EPA emission factors (e.g., AP-42)
Volatile Organic Compounds (VOC):	0.249	tons/y	EPA emission factors (e.g., AP-42)

Facility Annual Emissions - Subject Item Submittal Review

Tuesday, February 23, 2021

Agency ID: 856

Facility Name: Los Alamos National Security, LLC

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

Submittal Status: 2020 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

General Information

Was this equipment active at any time during the year? No

Supplemental Parameters

	Amount	Unit of Measure
Fuel Type:		
Materials Consumed:		
Fuel Heating Value:		
Percent Sulfur of Fuel:		percent
Percent Ash of Fuel:		percent
Percent Carbon Content:		percent

Operating Detail

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

Actual Pollutants

Pollutant	Amount	Unit of Measure	Calculation Method
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Subject Item Comments

Print Close

Facility Annual Emissions - Subject Item Submittal Review

Tuesday, February 23, 2021

Agency ID: 856

Facility Name: Los Alamos National Security, LLC

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

Submittal Status: 2020 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

General Information

Was this equipment active at any time during the year? Yes

Supplemental Parameters

	Amount	Unit of Measure
Fuel Type:	Diesel	
Materials Consumed:	4123.28	gal
Fuel Heating Value:	138.0	MM BTU/M gal
Percent Sulfur of Fuel:	0.001	percent
Percent Ash of Fuel:	0.01	percent
Percent Carbon Content:	83.0	percent

Operating Detail

	Value
Operating Time in Hours per Day:	24
Operating Time in Days per Week:	7
Operating Time in Weeks per Year:	52
Operating Time in Hours per Year:	40
Percent of Operation During Winter:	25
Percent of Operation During Spring:	25
Percent of Operation During Summer:	25
Percent of Operation During Fall:	25

Actual Pollutants

Pollutant	Amount	Unit of Measure	Calculation Method
Carbon Dioxide (combustion):	42.084	metric tons/y	40 CFR 98 Subpart C
Carbon Monoxide:	0.828	tons/y	EPA emission factors (e.g., AP-42)
Methane (combustion):	0.002	metric tons/y	40 CFR 98 Subpart C
Nitrogen Dioxide:	0.668	tons/y	EPA emission factors (e.g., AP-42)
Nitrous Oxide (combustion):	0.0	metric tons/y	40 CFR 98 Subpart C
Particulate Matter (10 microns or less):	0.033	tons/y	EPA emission factors (e.g., AP-42)
Sulfur Dioxide:	0.017	tons/y	EPA emission factors (e.g., AP-42)
Total HAP:	0.0	tons/y	EPA emission factors (e.g., AP-42)
Volatile Organic Compounds (VOC):	0.095	tons/y	EPA emission factors (e.g., AP-42)

Subject Item Comments

Facility Annual Emissions - Subject Item Submittal Review

Tuesday, February 23, 2021

Agency ID: 856

Facility Name: Los Alamos National Security, LLC

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

Submittal Status: 2020 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

General Information

Was this equipment active at any time during the year? Yes

Supplemental Parameters

	Amount	Unit of Measure
Fuel Type:	Diesel	
Materials Consumed:	3304.84	gal
Fuel Heating Value:	138.0	MM BTU/M gal
Percent Sulfur of Fuel:	0.001	percent
Percent Ash of Fuel:	0.01	percent
Percent Carbon Content:	83.0	percent

Operating Detail

	Value
Operating Time in Hours per Day:	24
Operating Time in Days per Week:	7
Operating Time in Weeks per Year:	52
Operating Time in Hours per Year:	32
Percent of Operation During Winter:	25
Percent of Operation During Spring:	25
Percent of Operation During Summer:	25
Percent of Operation During Fall:	25

Actual Pollutants

Pollutant	Amount	Unit of Measure	Calculation Method
Carbon Dioxide (combustion):	33.731	metric tons/y	40 CFR 98 Subpart C
Carbon Monoxide:	0.664	tons/y	EPA emission factors (e.g., AP-42)
Methane (combustion):	0.001	metric tons/y	40 CFR 98 Subpart C
Nitrogen Dioxide:	0.536	tons/y	EPA emission factors (e.g., AP-42)
Nitrous Oxide (combustion):	0.0	metric tons/y	40 CFR 98 Subpart C
Particulate Matter (10 microns or less):	0.026	tons/y	EPA emission factors (e.g., AP-42)
Sulfur Dioxide:	0.014	tons/y	EPA emission factors (e.g., AP-42)
Total HAP:	0.0	tons/y	EPA emission factors (e.g., AP-42)
Volatile Organic Compounds (VOC):	0.076	tons/y	EPA emission factors (e.g., AP-42)

Subject Item Comments

Facility Annual Emissions - Subject Item Submittal Review

Tuesday, February 23, 2021

Agency ID: 856

Facility Name: Los Alamos National Security, LLC

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

Submittal Status: 2020 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

General Information

Was this equipment active at any time during the year? Yes

Supplemental Parameters

	Amount	Unit of Measure
Fuel Type:	Diesel	
Materials Consumed:	11.22	gal
Fuel Heating Value:	138.0	MM BTU/M gal
Percent Sulfur of Fuel:	0.001	percent
Percent Ash of Fuel:	0.01	percent
Percent Carbon Content:	83.0	percent

Operating Detail

	Value
Operating Time in Hours per Day:	2
Operating Time in Days per Week:	5
Operating Time in Weeks per Year:	12
Operating Time in Hours per Year:	7
Percent of Operation During Winter:	25
Percent of Operation During Spring:	25
Percent of Operation During Summer:	25
Percent of Operation During Fall:	25

Actual Pollutants

Pollutant	Amount	Unit of Measure	Calculation Method
Carbon Dioxide (combustion):	0.115	metric tons/y	40 CFR 98 Subpart C
Carbon Monoxide:	0.001	tons/y	EPA emission factors (e.g., AP-42)
Methane (combustion):	0.0	metric tons/y	40 CFR 98 Subpart C
Nitrogen Dioxide:	0.006	tons/y	EPA emission factors (e.g., AP-42)
Nitrous Oxide (combustion):	0.0	metric tons/y	40 CFR 98 Subpart C
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)
Total HAP:	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

Facility Annual Emissions - Subject Item Submittal Review

Tuesday, February 23, 2021

Agency ID: 856

Facility Name: Los Alamos National Security, LLC

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

Submittal Status: 2020 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

General Information

Was this equipment active at any time during the year? No

Supplemental Parameters

	Amount	Unit of Measure
Fuel Type:		
Materials Consumed:		
Fuel Heating Value:		
Percent Sulfur of Fuel:		percent
Percent Ash of Fuel:		percent
Percent Carbon Content:		percent

Operating Detail

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

Actual Pollutants

Pollutant	Amount	Unit of Measure	Calculation Method
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Subject Item Comments

Print Close

Facility Annual Emissions - Subject Item Submittal Review

Tuesday, February 23, 2021

Agency ID: 856

Facility Name: Los Alamos National Security, LLC

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

Submittal Status: 2020 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

General Information

Was this equipment active at any time during the year? Yes

Supplemental Parameters

	Amount	Unit of Measure
Fuel Type:	Diesel	
Materials Consumed:	127.65	gal
Fuel Heating Value:	138.0	MM BTU/M gal
Percent Sulfur of Fuel:	0.001	percent
Percent Ash of Fuel:	0.01	percent
Percent Carbon Content:	83.0	percent

Operating Detail

	Value
Operating Time in Hours per Day:	8
Operating Time in Days per Week:	5
Operating Time in Weeks per Year:	52
Operating Time in Hours per Year:	12
Percent of Operation During Winter:	25
Percent of Operation During Spring:	25
Percent of Operation During Summer:	25
Percent of Operation During Fall:	25

Actual Pollutants

Pollutant	Amount	Unit of Measure	Calculation Method
Carbon Dioxide (combustion):	1.303	metric tons/y	40 CFR 98 Subpart C
Carbon Monoxide:	0.023	tons/y	EPA emission factors (e.g., AP-42)
Methane (combustion):	0.0	metric tons/y	40 CFR 98 Subpart C
Nitrogen Dioxide:	0.104	tons/y	EPA emission factors (e.g., AP-42)
Nitrous Oxide (combustion):	0.0	metric tons/y	40 CFR 98 Subpart C
Particulate Matter (10 microns or less):	0.003	tons/y	EPA emission factors (e.g., AP-42)
Sulfur Dioxide:	0.002	tons/y	EPA emission factors (e.g., AP-42)
Total HAP:	0.0	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

Facility Annual Emissions - Subject Item Submittal Review

Tuesday, February 23, 2021

Agency ID: 856

Facility Name: Los Alamos National Security, LLC

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

Submittal Status: 2020 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

General Information

Was this equipment active at any time during the year? No

Supplemental Parameters

	Amount	Unit of Measure
Fuel Type:		
Materials Consumed:		
Fuel Heating Value:		
Percent Sulfur of Fuel:		percent
Percent Ash of Fuel:		percent
Percent Carbon Content:		percent

Operating Detail

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

Actual Pollutants

Pollutant	Amount	Unit of Measure	Calculation Method
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Subject Item Comments

Unit has not been installed.

Print Close

Facility Annual Emissions - Subject Item Submittal Review

Tuesday, February 23, 2021

Agency ID: 856

Facility Name: Los Alamos National Security, LLC

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

Submittal Status: 2020 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

General Information

Was this equipment active at any time during the year? No

Supplemental Parameters

	Amount	Unit of Measure
Fuel Type:		
Materials Consumed:		
Fuel Heating Value:		
Percent Sulfur of Fuel:		percent
Percent Ash of Fuel:		percent
Percent Carbon Content:		percent

Operating Detail

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

Actual Pollutants

Pollutant	Amount	Unit of Measure	Calculation Method
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Subject Item Comments

Unit has not been installed.

Print Close

Facility Annual Emissions - Subject Item Submittal Review

Tuesday, February 23, 2021

Agency ID: 856

Facility Name: Los Alamos National Security, LLC

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

Submittal Status: 2020 Submittal (In Process)

Subject Item ID: ACT -7

Designation: LANL-FW-CHEM

Description: R & D Activities - Labwide (031)

Type: Research/Testing

SCC: Industrial Processes, Photo Equip/Health Care/Labs/Air Condit/SwimPools, Laboratories, Bench Scale Reagents: Research

General Information

Was this equipment active at any time during the year? Yes

Supplemental Parameters

Fuel Type: Diesel

Operating Detail

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

Actual Pollutants

Pollutant	Amount	Unit of Measure	Calculation Method
Acetaldehyde; (Ethyl aldehyde):	0.0	tons/y	Material balance
Acetonitrile; (Methyl cyanide):	0.243	tons/y	Material balance
Acetophenone:	0.0	tons/y	Material balance
Acrylamide:	0.0	tons/y	Material balance
Acrylic acid:	0.006	tons/y	Material balance
Acrylonitrile:	0.0	tons/y	Material balance
Ammonia:	0.0	tons/y	Material balance
Aniline:	0.001	tons/y	Material balance
Antimony:	0.0	tons/y	Material balance
Antimony compounds:	0.001	tons/y	Material balance
Arsenic Compounds:	0.0	tons/y	Material balance
Benzene:	0.013	tons/y	Material balance
Benzyl Chloride:	0.0	tons/y	Material balance
Beryllium Compounds:	0.0	tons/y	Material balance
Biphenyl:	0.0	tons/y	Material balance
Bromoform; (Tribromomethane):	0.0	tons/y	Material balance

Butadiene(1,3-):	0.0	tons/y	Material balance
Cadmium:	0.0	tons/y	Material balance
Cadmium compounds:	0.003	tons/y	Material balance
Carbon Disulfide:	0.0	tons/y	Material balance
Carbon tetrachloride; (Tetrachloromethane):	0.005	tons/y	Material balance
Carbonyl sulfide:	0.0	tons/y	Material balance
Catechol (Pyrocatechol):	0.0	tons/y	Material balance
Chlorine:	0.0	tons/y	Material balance
Chloroacetic Acid:	0.0	tons/y	Material balance
Chlorobenzene(Phenyl Chloride):	0.003	tons/y	Material balance
Chloroform; (Trichloromethane):	0.176	tons/y	Material balance
Chromium:	0.0	tons/y	Material balance
Chromium VI compounds:	0.008	tons/y	Material balance
Cobalt Compounds:	0.002	tons/y	Material balance
Cresol(m-); (Methylphenol, 3-):	0.0	tons/y	Material balance
Cumene:	0.0	tons/y	Material balance
Cyanide compounds:	0.086	tons/y	Material balance
Dibutylphthalate; (Di-n-butyl phthalate):	0.003	tons/y	Material balance
Dichloroethane (1,2-); (EDC); (Ethylene dichloride):	0.003	tons/y	Material balance
Dichlorofluoromethane:	0.0	tons/y	Material balance
Diethanolamine:	0.001	tons/y	Material balance
Diethyl Aniline(n,n-):	0.001	tons/y	Material balance
Dimethyl Sulfate:	0.0	tons/y	Material balance
Dimethyl formamide:	0.207	tons/y	Material balance
Dimethylhydrazine(1,1-):	0.001	tons/y	Material balance
Dioxane(1,4-) (1,4-Diethyleneoxide):	0.01	tons/y	Material balance
Epichlorohydrin; (1-Chloro-2,3-epoxypropane):	0.001	tons/y	Material balance
Epoxybutane(1,2-) (1,2-Butylene oxide):	0.0	tons/y	Material balance
Ethyl Acrylate:	0.0	tons/y	Material balance
Ethyl chloride; (Chloroethane):	0.0	tons/y	Material balance
Ethylbenzene:	0.0	tons/y	Material balance
Ethylene Glycol:	0.917	tons/y	Material balance
Ethylene dibromide; (EDB); (1,2-Dibromoethane):	0.0	tons/y	Material balance
Formaldehyde:	0.001	tons/y	Material balance
Glycol Ethers:	0.023	tons/y	Material balance
Hexachlorocyclopentadiene:	0.0	tons/y	Material balance
Hexamethylphosphoramide:	0.0	tons/y	Material balance
Hexane:	0.202	tons/y	Material balance
Hydrazine:	0.0	tons/y	Material balance
Hydrochloric acid (HCl):	0.597	tons/y	Material balance
Hydrofluoric Acid; (Hydrogen fluoride):	0.068	tons/y	Material balance
Hydroquinone:	0.04	tons/y	Material balance
Iodomethane (Methyl iodide):	0.001	tons/y	Material balance
Isophorone:	0.0	tons/y	Material balance
Lead Compounds:	0.004	tons/y	Material balance
Maleic anhydride:	0.0	tons/y	Material balance
Manganese:	0.0	tons/y	Material balance
Manganese compounds:	0.004	tons/y	Material balance
Mercury compounds:	0.001	tons/y	Material balance

Methanol; (Methyl alcohol):	0.429	tons/y	Material balance
Methyl Ethyl Ketone; (MEK); (2-Butanone):	0.0	tons/y	Material balance
Methyl Methacrylate:	0.002	tons/y	Material balance
Methyl bromide; (Bromomethane):	0.0	tons/y	Material balance
Methyl chloride; (Chloromethane):	0.0	tons/y	Material balance
Methyl isobutyl ketone; (Hexone); (4-Methyl-2-pentanone):	0.0	tons/y	Material balance
Methyl tert butyl ether:	0.007	tons/y	Material balance
Methylene chloride; (Dichloromethane):	0.608	tons/y	Material balance
Methylenebiphenyl isocyanate; (MDI); (Diphenylmethane diisocyanate):	0.18	tons/y	Material balance
Mineral Fibers:	0.02	tons/y	Material balance
Naphthalene:	0.0	tons/y	Material balance
Nickel:	0.0	tons/y	Material balance
Nickel compounds:	0.012	tons/y	Material balance
Nitrobenzene; (nitro-Benzene):	0.001	tons/y	Material balance
Nitrophenol(4-); (p-Nitrophenol):	0.0	tons/y	Material balance
PCE; (Perchloroethylene); (Tetrachloroethylene); (Tetrachloroethene):	0.002	tons/y	Material balance
Phenol:	0.0	tons/y	Material balance
Phenylenediamine(p-); (Phenylenediamine):	0.0	tons/y	Material balance
Phosphine:	0.0	tons/y	Material balance
Phosphorus:	0.0	tons/y	Material balance
Phthalic anhydride:	0.0	tons/y	Material balance
Polycyclic Organic Matter:	0.027	tons/y	Material balance
Propylene Dichloride (1,2-Dichloropropane):	0.0	tons/y	Material balance
Propylene oxide:	0.0	tons/y	Material balance
Selenium:	0.0	tons/y	Material balance
Selenium compounds:	0.001	tons/y	Material balance
Styrene:	0.0	tons/y	Material balance
TCE; (Trichloroethylene); (Trichloroethene):	0.013	tons/y	Material balance
Tetrachloroethane(1,1,2,2-):	0.0	tons/y	Material balance
Titanium tetrachloride:	0.0	tons/y	Material balance
Toluene diisocyanate(2,4-):	0.0	tons/y	Material balance
Toluene; (Methyl benzene):	0.365	tons/y	Material balance
Total HAP:	4.421	tons/y	Material balance
Trichloroethane(1,1,1-) (Methyl Chloroform):	0.0	tons/y	Material balance
Trichloroethane(1,1,2-):	0.0	tons/y	Material balance
Triethylamine:	0.006	tons/y	Material balance
Trimethylpentane(2,2,4-):	0.0	tons/y	Material balance
Urethane; (Ethyl carbamate):	0.0	tons/y	Material balance
Vinyl acetate; (Vinyl acetate monomer):	0.0	tons/y	Material balance
Volatile Organic Compounds (VOC):	6.1	tons/y	Material balance
Xylene(m-); (1,3-Dimethylbenzene); (meta-Xylene):	0.0	tons/y	Material balance
Xylene(o-); (1,2-Dimethylbenzene); (ortho-Xylene):	0.001	tons/y	Material balance
Xylene(p-); (1,4-Dimethylbenzene); (para-Xylene):	0.095	tons/y	Material balance
Xylenes (total); (Xylol):	0.021	tons/y	Material balance
bis(2-ethylhexyl) phthalate; (Di-2-ethylhexyl phthalate); (DEHP):	0.0	tons/y	Material balance

Subject Item Comments

Print Close

Facility Annual Emissions - Subject Item Submittal Review

Tuesday, February 23, 2021

Agency ID: 856

Facility Name: Los Alamos National Security, LLC

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

Submittal Status: 2020 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, Photo Equip/Health Care/Labs/Air Condit/SwimPools, Laboratories, Bench Scale Reagents: Research

General Information

Was this equipment active at any time during the year? Yes

Supplemental Parameters

Fuel Type: Diesel

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:	0.022	tons/y	Material balance
Volatile Organic Compounds (VOC):	0.19	tons/y	Material balance

Subject Item Comments

Print Close

Facility Annual Emissions - Subject Item Submittal Review

Tuesday, February 23, 2021

Agency ID: 856

Facility Name: Los Alamos National Security, LLC

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

Submittal Status: 2020 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

General Information

Was this equipment active at any time during the year? Yes

Supplemental Parameters

Input Materials Processed: Paper (INPUT)

Operating Detail

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

Actual Pollutants

Pollutant	Amount	Unit of Measure	Calculation Method
Particulate Matter (10 microns or less):	0.247	tons/y	Manufacturer Specification
Particulate Matter (2.5 microns or less):	0.165	tons/y	Manufacturer Specification

Subject Item Comments

Print Close

Facility Annual Emissions - Subject Item Submittal Review

Tuesday, February 23, 2021

Agency ID: 856

Facility Name: Los Alamos National Security, LLC

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

Submittal Status: 2020 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

General Information

Was this equipment active at any time during the year? No

Supplemental Parameters

Operating Detail

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

Actual Pollutants

Pollutant	Amount	Unit of Measure	Calculation Method
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Subject Item Comments

Unit has not been installed.

Print Close

Facility Annual Emissions - Subject Item Submittal Review

Tuesday, February 23, 2021

Agency ID: 856

Facility Name: Los Alamos National Security, LLC

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

Submittal Status: 2020 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

General Information

Was this equipment active at any time during the year? Yes

Supplemental Parameters

	Amount	Unit of Measure
Fuel Type:	Natural Gas	
Materials Consumed:	0.0	MM SCF
Fuel Heating Value:	1053.3	MM BTU/MM SCF
Percent Sulfur of Fuel:	0.001	percent
Percent Ash of Fuel:	0.0	percent
Percent Carbon Content:	65.0	percent

Operating Detail

	Value
Operating Time in Hours per Day:	7
Operating Time in Days per Week:	4
Operating Time in Weeks per Year:	12
Operating Time in Hours per Year:	900
Percent of Operation During Winter:	25
Percent of Operation During Spring:	25
Percent of Operation During Summer:	25
Percent of Operation During Fall:	25

Actual Pollutants

Pollutant	Amount	Unit of Measure	Calculation Method
Acetaldehyde; (Ethyl aldehyde):	0.005	tons/y	EPA emission factors (e.g., AP-42)
Carbon Dioxide (combustion):	12264.766	metric tons/y	40 CFR 98 Subpart C
Carbon Monoxide:	1.152	tons/y	EPA emission factors (e.g., AP-42)
Copper:	0.008	tons/y	EPA emission factors (e.g., AP-42)
Ethylbenzene:	0.004	tons/y	EPA emission factors (e.g., AP-42)
Formaldehyde:	0.08	tons/y	EPA emission factors (e.g., AP-42)
Lead:	0.0	tons/y	EPA emission factors (e.g., AP-42)
Manganese:	0.009	tons/y	EPA emission factors (e.g., AP-42)
Methane (combustion):	0.231	metric tons/y	40 CFR 98 Subpart C
Nickel:	0.013	tons/y	EPA emission factors (e.g., AP-42)
Nitrogen Dioxide:	5.541	tons/y	EPA emission factors (e.g., AP-42)

Nitrous Oxide (combustion):	0.023	metric tons/y	40 CFR 98 Subpart C
Particulate Matter (10 microns or less):	0.746	tons/y	EPA emission factors (e.g., AP-42)
Particulate Matter (2.5 microns or less):	0.746	tons/y	EPA emission factors (e.g., AP-42)
Propylene oxide:	0.003	tons/y	EPA emission factors (e.g., AP-42)
Sulfur Dioxide:	0.384	tons/y	EPA emission factors (e.g., AP-42)
Toluene; (Methyl benzene):	0.015	tons/y	EPA emission factors (e.g., AP-42)
Total HAP:	0.151	tons/y	EPA emission factors (e.g., AP-42)
Volatile Organic Compounds (VOC):	0.241	tons/y	EPA emission factors (e.g., AP-42)
Xylenes (total); (Xylol):	0.007	tons/y	EPA emission factors (e.g., AP-42)

Subject Item Comments

Print
Close

Facility Annual Emissions - Subject Item Submittal Review

Tuesday, February 23, 2021

Agency ID: 856

Facility Name: Los Alamos National Security, LLC

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

Submittal Status: 2020 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

General Information

Was this equipment active at any time during the year? No

Supplemental Parameters

	Amount	Unit of Measure
Fuel Type:		
Materials Consumed:		
Fuel Heating Value:		
Percent Sulfur of Fuel:		percent
Percent Ash of Fuel:		percent
Percent Carbon Content:		percent

Operating Detail

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

Actual Pollutants

Pollutant	Amount	Unit of Measure	Calculation Method
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Subject Item Comments

Unit has not been installed.

2020 Emission Inventory | AI856 LANL - Asphalt Batch Plant Emissions Calculations

Year 2020
Type Asphalt Drum/Burner
NMED ID EQPT-116
Title V Designation TA-60-BDM
Description Asphalt Plant Dryer

Equations for Emissions Calculations

Criteria Pollutant and HAP Emissions (ton/yr) = Emission Factor (lb/ton) * Annual Asphalt Production (tons/yr) * (1 ton/2000 lb)

Greenhouse Gas Emissions (metric tons/yr) = Emission Factor (kg/mmbtu) * Fuel (scf/yr) * HHV (mmbTU/scf) * metric ton/1000 kg

Pollutant	Emission Factor (lb/ton)	Annual Emissions (tons/year)	Calculation Basis
NOx	0.012	0.0008	(b)
CO	0.434	0.0295	(b)
PM	0.007	0.0005	(b)
PM-10	0.006	0.0004	(c)
PM-2.5	0.006	0.0004	(c)
SOx	0.0046	0.0003	(a)
VOC	0.0082	0.0006	(a)
EthylBenzene	0.0022	0.0001	(d)
Formaldehyde	0.00074	0.0001	(d)
Xylene	0.0027	0.0002	(d)
Greenhouse Gases	Emission Factor (kg/mmbtu)	Annual Emissions (metric tons/year)	Calculation Basis
Carbon Dioxide	53.06	90.43	(e)
Methane	0.001	0.002	(e)
Nitrous Oxide	0.0001	0.000	(e)

High Heat Value
0.0010533 mmbTU/scf

Fuel Use
1,618,000 scf/yr

Asphalt Production
136.0 ton/year

References for Emission Factors

(a) AP-42, Sec. 11.1, *Hot Mix Asphalt Plants*, Table 11.1-5 & 11.1-6, Updated 4/2004

(b) Calculated using stack test results performed on May 18, 2009 by TRC Air Measurements.

(c) PM-10 emission factor is calculated as 64% of the PM emission factor (from stack test), using the same ratio of PM to PM-10 as provided in AP-42 Table 11.1-1. No data provided for PM-2.5, assume same as PM-10.

(d) AP-42, Table 11.1-9, *Hot Mix Asphalt Plants*, Updated 4/2004

(e) 40 CFR Part 98, Subpart C

2020 Emission Inventory | AI856 LANL - Beryllium Emissions Calculations

Year 2020
Type Beryllium Work
NMED ID ACT-2
Title V Designation TA-35-213
Description Be Target Fabrication Facility - Machining TA-35-213

Emission Calculation Description - Emissions for the Target Fabrication Facility are from initial compliance testing of that source and calculated based on a conservative assumption of 8 hour work days. Log books were checked to verify that work days were much less than 8 hours.

2020 Emissions =	< 0.018 grams
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Year 2020
Type Beryllium Work
NMED ID ACT-3
Title V Designation TA-3-141
Description Be Test Facility - Machining TA-3-141

Emission Calculation Description - Emission values shown for the Beryllium Test Facility are from actual stack emission measurements which are submitted to NMED quarterly.

2020 Emissions =	0.0048 grams
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Year 2020
Type Beryllium Work
NMED ID ACT-6
Title V Designation TA-55-PF-4
Description Plutonium Facility Beryllium machining, weld cutting/dressing and metallography

Emission Calculation Description - Emissions for the Plutonium Facility are calculated based on permitted throughputs. Log books were checked to verify that throughputs were much less than permitted values. The Plutonium Facility foundry operations did not operate during 2020.

2020 Emissions =	< 2.91 grams
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Year 2020
Type Beryllium Work
NMED ID ACT-41
Title V Designation TA-3-66
Description Sigma Facility - electroplating, metallography, and chemical milling

Emission Calculation Description - Emission Factors for the Sigma Facility are based on currently permitted similar processes (see Sections 4 and 6 of Sep 1997 application for permit 634-M2, and permit 1081-M1-R3).

2020 Emissions =	0 grams
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2020 Emission Inventory | AI856 LANL - Boilers Emissions Calculations

Year 2020
Type Boilers except those at the power plant
NMED ID multiple (see emission table below)
Title V Designation EQPT 11, EQPT 12, EQPT 29, EQPT 30, EQPT 53, EQPT 104, EQPT 105, EQPT 134
Description Boilers located at various locations not including the power plant

Emission Factors (lb/MMscf)

Pollutant	Small Uncontrolled Boilers ^a	TA-16 Low NOx Boilers ^d	TA-55-6 Boilers ^c	RLUOB Boilers
NOx	100	37.08	138	29.9
SOx	0.6	0.6	0.6	0.6
PM ^b	7.6	7.6	14.2	4.9
PM-10 ^b	7.6	7.6	14.2	4.9
PM-2.5 ^b	7.6	7.6	14.2	4.9
CO	84	37.08	38.2	38.1
VOC	5.5	5.5	5.98	25.8
Formaldehyde ^e	0.075	0.075	0.075	0.075
Hexane ^e	1.8	1.8	1.8	1.8
Greenhouse Gases ^f	(kg/mmbtu)			
Carbon Dioxide	53.06			
Methane	0.001			
Nitrous Oxide	0.0001			

High Heat Value (mmbtu/scf)
0.0010533

References for Emission Factors
(a) AP-42, 7/98, Section 1.4, Natural Gas Combustion, Small Boilers.
(b) Emission factors for natural gas of PM-10 and PM-2.5 are roughly equal to those of PM, Natural Gas Combustion, Table 1.4-2.
(c) AP-42, 7/98, Section 1.4, Natural Gas Combustion, Small Boilers for SOx. Stack test on 3/00 for NOx. Otherwise, Emission factors from Sellers Engineering Co.
(d) AP-42, 7/98, Section 1.4, Natural Gas Combustion, Small Boilers; Emission factors for NOx and CO from Sellers Engineering Co (low-NOx boilers).
(e) All HAP emission factors from AP-42 7/98, Section 1.4, Natural Gas Combustion, Tables 1.4-3, 1.4-4.
(f) 40 CFR Part 98, Subpart C

2020 Natural Gas Use

Boiler ID	TA-16-1484 BS-1	TA-16-1484 BS-2	TA-53-365 BHW-1	TA-53-365 BHW-2	TA-55-6 BHW-1	TA-55-6 BHW-2	B-1 CMRR	B-2 CMRR	B-3 CMRR
NG Use (MMscf/yr)	8.518	8.518	9.544	9.544	3.079	17.551	0.885	0.885	0.885

Equations for Emissions Calculations

Annual Emissions (tons/year) = Emission Factor (lb/MMscf) * Annual natural gas consumption (MMscf/year) * (1 ton/2000 lb)

Greenhouse Gas Emissions (metric tons/yr) = Emission Factor (kg/mmbtu) * Fuel (scf/yr) * HHV (mmbtu/scf) * metric ton/1000 kg

2020 Boiler Emissions for Annual EI Reporting

Pollutant	134 TA-16-1484-BS-1 (tons/yr)	53 TA-16-1484-BS-2 (tons/yr)	11 TA-53-365-BHW-1 (tons/yr)	12 TA-53-365-BHW-2 (tons/yr)	29 TA-55-6-BHW-1 (tons/yr)	30 TA-55-6-BHW-2 (tons/yr)	90 RLUOB-BHW-1 (tons/yr)	104 RLUOB-BHW-2 (tons/yr)	105 RLUOB-BHW-3 (tons/yr)
NOx	0.158	0.158	0.477	0.477	0.212	1.211	0.013	0.013	0.013
SOx	0.003	0.003	0.003	0.003	0.001	0.005	0.000	0.000	0.000
PM	0.032	0.032	0.036	0.036	0.022	0.125	0.002	0.002	0.002
PM-10	0.032	0.032	0.036	0.036	0.022	0.125	0.002	0.002	0.002
PM-2.5	0.032	0.032	0.036	0.036	0.022	0.125	0.002	0.002	0.002
CO	0.158	0.158	0.401	0.401	0.059	0.335	0.017	0.017	0.017
VOC	0.023	0.023	0.026	0.026	0.009	0.052	0.011	0.011	0.011
Formaldehyde	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000
Hexane	0.008	0.008	0.009	0.009	0.003	0.016	0.001	0.001	0.001
Greenhouse Gases	(metric tons/year)	(metric tons/year)	(metric tons/year)	(metric tons/year)	(metric tons/year)	(metric tons/year)	(metric tons/year)	(metric tons/year)	(metric tons/year)
Carbon Dioxide	476.05	476.05	533.40	533.40	172.08	980.89	49.46	49.46	49.46
Methane	0.0090	0.0090	0.0101	0.0101	0.0032	0.0185	0.0009	0.0009	0.0009
Nitrous Oxide	8.97E-04	8.97E-04	1.01E-03	1.01E-03	3.24E-04	1.85E-03	9.32E-05	9.32E-05	9.32E-05

2020 Emission Inventory | AI856 LANL - Degreaser

Year 2020
Type Parts Washer
NMED ID EQPT-21
Title V Designation TA-55-DG-1
Description Degreaser - Ultrasonic Cold batch TA-55-4

Solvent Trichloroethylene

Degreaser Emissions January-June 2020 (lbs)	
Jan-20	22.15
Feb-20	13.84
Mar-20	11.08
Apr-20	11.08
May-20	0.00
Jun-20	11.08
Total lbs:	69.22
Total tons:	0.035

Degreaser Emissions July-December 2020 (lbs)	
Jul-20	19.38
Aug-20	5.54
Sep-20	0.00
Oct-20	13.84
Nov-20	5.54
Dec-20	0.00
Total lbs:	44.30
Total tons:	0.022

Total lbs 2020:	113.53
Total tons 2020:	0.057

2020 Emission Inventory | AI856 LANL - Internal Combustion Engine

Year 2020
Type Internal Combustion Engine
NMED ID EQPT-119, EQPT-120, EQPT-128, EQPT-135, EQPT-143, EQPT-146, EQPT-147, EQPT-153, EQPT-154, EQPT-155, EQPT-156, EQPT-160, EQPT-161, EQPT-162
Title V Designation Four TA-33-Generators; Three RLUOB Generators; Three TA-55 Generators; One TA-48 Generator
Description Multiple genertors located at TA-33; 3 generators located at TA-55 CMRR; 5 generators TA-55, 1 at TA-50 and 1 at TA-48

EMISSION FACTORS (EF)	NOx lb/kw-hr	CO lb/kw-hr	SOx lb/kw-hr	PM lb/kw-hr	PM ₁₀ lb/kw-hr	VOC lb/kw-hr	Calculation Basis
TA-33-G-1P	2.01E-02	2.01E-03	5.36E-04	6.17E-04	6.17E-04	1.48E-03	(a)
TA-33-G-2	4.17E-02	1.21E-02	2.87E-03	2.87E-03	2.87E-03	3.31E-03	(b)
TA-33-G-3	4.17E-02	1.21E-02	2.87E-03	2.87E-03	2.87E-03	3.31E-03	(b)
TA-33-G-4	4.17E-02	2.51E-02	2.87E-03	2.87E-03	2.87E-03	3.31E-03	(b)
RLUOB-GEN-1	2.03E-02	2.51E-02	5.29E-04	1.19E-03	9.92E-04	2.87E-03	(c)
RLUOB-GEN-2	2.03E-02	2.51E-02	5.29E-04	1.19E-03	9.92E-04	2.87E-03	(c)
RLUOB-GEN-3	2.03E-02	2.51E-02	5.29E-04	1.19E-03	9.92E-04	2.87E-03	(c)
TA-48-GEN-1	8.82E-03	7.72E-03	6.61E-06	4.41E-04	3.00E-03	8.82E-03	(d)
TA-55-GEN-1	4.20E-02	9.00E-03	3.00E-03	3.00E-03	3.00E-03	3.00E-03	(e)
TA-55-GEN-2	4.20E-02	9.00E-03	3.00E-03	3.00E-03	3.00E-03	3.00E-03	(e)
TA-55-GEN-3	3.20E-02	7.00E-03	5.40E-04	1.00E-03	1.00E-03	1.00E-03	(e)
TA-50-184-GEN-1	3.20E-02	7.00E-03	5.40E-04	1.00E-03	1.00E-03	1.00E-03	(e)
TA-55-GEN-4	3.20E-02	7.00E-03	5.40E-04	1.00E-03	1.00E-03	1.00E-03	(e)
TA-55-GEN-5	3.20E-02	7.00E-03	5.40E-04	1.00E-03	1.00E-03	1.00E-03	(e)

Greenhouse Gases Emission Factors ^(f)	(kg/mmBTU)
Carbon Dioxide (CO2)	73.96
Methane (CH4)	0.003
Nitrous Oxide (N2O)	0.0006

High Heat Value
0.138 (mmBTU/gal)

The size limit for determining large vs. small diesel fired generator. This information was taken from the operating permit application.
 447 kw

References for Emission Factors
(a) TA-33-G-1P NOx, CO, PM, VOC emission rates are from manufacturer's data; the values were given in gm/HP-hr; The following conversion factors were used to obtain lb/kw-hr; 453.6 g/lb and 1.341 hp-hr/kWh to convert emission factor units to lb/kWh; total HC was used as VOC; actual VOC would be much lower; SO2 from Table 3.4-1 AP-42 based on 0.05% S in fuel
(b) TA-33 G2, G3, G4 CO emission rate are from EPA Tier 1 nonroad standards; all others from AP-42, Section 3.3 (see TV permit renewal app calcs from 2013)
(c) RLUOB-GEN-1, GEN-2, GEN-3 emission rates for NOx, CO, PM and VOC from applicable Tier 1 standards (see TV renewal app 2013); Emission factors for SOx and PM10 from AP-42
(d) TA-48 NOx, CO, VOC and PM factors from Tier 3 engine standards (see TV renewal app); EF for SOx, PM10 and HAPs from AP-42.
(e) Emission factors for generators at TA-55 are from AP-42. Emission factors for small diesel fired engines were taken from AP-42 (fifth edition) Tables 3.3-1 and 3.3-2. Large generators emission factors were taken from AP-42 (fifth edition) Tables 3.4-1, 3.4-2, 3.4-3, and 3.4-4.
(f) 40 CFR Part 98, Subpart C

Equations for Emissions Calculations

Emission Rate in tons/year = EF (lb/kW-hour) * Equip. Rating (kW-hr) * Number of hours (hour/year) / (1 ton/2000 lb)
 GHG Emissions for FO Use (metric tons/yr) = EF (kg/mmbtu) * Fuel (gal/yr) * HHV (mmBTU/gal) * metric ton/1000 kg

2020 Generator Emissions for Annual EI Reporting

Permit ID	NMED ID	kW rating	Total (hrs/year)	Fuel Use (gal/yr)	NOx (tons/yr)	CO (tons/yr)	SOx (tons/yr)	PM (tons/yr)	PM ₁₀ (tons/yr)	VOC (tons/yr)	CO2 (metric tons/yr)	CH4 (metric tons/yr)	N2O (metric tons/yr)
TA-33-G-1P	EQPT-146	1111.5	303.3	5762.70	3.391	0.339	0.090	0.104	0.104	0.249	58.82	2.39E-03	4.77E-04
TA-33-G-2	EQPT-119	25	0.0	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.00	0.00E+00	0.00E+00
TA-33-G-3	EQPT-120	25	0.0	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.00	0.00E+00	0.00E+00
TA-33-G-4	EQPT-135	281.25	181.0	2859.80	1.061	0.640	0.073	0.073	0.073	0.084	29.19	1.18E-03	2.37E-04
RLUOB-Gen-1	EQPT-128	1656.1	0.0	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.00	0.00E+00	0.00E+00
RLUOB-Gen-2	EQPT-153	1656.1	39.8	4123.28	0.668	0.828	0.017	0.039	0.033	0.094	42.08	1.71E-03	3.41E-04
RLUOB-Gen-3	EQPT-154	1656.1	31.9	3304.84	0.536	0.664	0.014	0.031	0.026	0.076	33.73	1.37E-03	2.74E-04
TA-48-Gen-1	EQPT-147	186	0.0	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.00	0.00E+00	0.00E+00
TA-55-Gen-1	EQPT-156	40.2	0.0	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.00	0.00E+00	0.00E+00
TA-55-Gen-2	EQPT-155	40.2	6.6	11.22	0.006	0.001	0.000	0.000	0.000	0.000	0.11	4.65E-06	9.29E-07
TA-55-Gen-3	EQPT-143	1335	19.2	303.36	0.410	0.090	0.007	0.013	0.013	0.013	3.10	1.26E-04	2.51E-05
TA-50-184-GEN-1	EQPT-160	563	11.5	127.65	0.104	0.023	0.002	0.003	0.003	0.003	1.30	5.28E-05	1.06E-05
TA-55-GEN-4	EQPT-161	563	40.7	1225.07	0.367	0.080	0.006	0.011	0.011	0.011	12.50	5.07E-04	1.01E-04
TA-55-GEN-5	EQPT-162	563	44.7	1345.47	0.403	0.088	0.007	0.013	0.013	0.013	13.73	5.57E-04	1.11E-04

2020 Emission Inventory | AI856 LANL - Data Disintegrator

Year 2020
Type Shredder
NMED ID 89
Title V Designation TA-52-11
Description Data Disintegrator/Industrial Shredder

Emission Factors

Pollutant	Percent Material in Exhaust ^(b)	Percent in Exhaust ^(e)	Control ^(d) Efficiency (Cyclone)	Control ^(d) Efficiency (Baghouse)
PM 2.5	15%	15%	0%	95.0%
PM 10	15%	90%	75%	95.0%
TSP	15%	100%	75%	95.0%

Total Boxes Shredded^(c)
6,504

Average Box Weight^(a)
45 lb

References for Emission Factors

(a) Estimated maximum box weight is 45 pounds. Information provided by shredding operations. Full box weight of tightly packed paper.	(b) Emission Factor (percentage of material shredded that will enter into the exhaust) obtained from the manufacturer of the air handling system, AGET Manufacturing Co. 15% is also listed in the construction permit application.	(c) Information provided by the shredding operations personnel.	(d) Information on control equipment efficiencies was provided by the manufacturer (SEM) of the Data Disintegrator. Those values not given were extrapolated using manufacturer data. Efficiencies of 75% for the Cyclone and 95% for the bag house are listed in the construction permit application. (see cyclone efficiency tab for more info.)	(e) Manufacturer provided info that the dust into the exhaust would be in the size range of 5-20 um. Conservative assumption that 15% is PM2.5, and 90% is PM10.
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Equation for Emissions Calculations

Emission Rate = Boxes Shredded * Average Box Weight * Percent Material in Exhaust * Percent in Exhaust * (1 - Cyclone Control Efficiency) * (1 - Baghouse Control Efficiency)

2020 TA-52-11 Data Disintegrator Emissions for Annual EI Reporting

Pollutant	Amount Processed (pounds)	PM-2.5 Emissions (pounds)	PM-2.5 Emissions (tons)	PM-10 Emissions (pounds)	PM-10 Emissions (tons)	TSP Emissions (pounds)	TSP Emissions (tons)
CY Annual Total	292,680	329.3	0.165	493.9	0.247	548.8	0.274

2020 Emission Inventory | AI856 LANL - Power Plant Boilers

Year	2020
Type	Boilers - Power Plant
NMED ID	EQPT-24; EQPT-25; EQPT-26 (pph, Natural Gas); EQPT-137, EQPT-138, EQPT-141 (pph; No. 2 fuel oil)
Designation	TA-3-22-1; TA3-22-2; TA-3-22-3
Description	Power Plant Boiler (pph, Natural Gas), Power Plant Boiler (pph, No. 2 fuel oil)

Pollutant	Emission Factor (EF)	
	Natural ^(a) Gas (lb/MMscf)	Fuel Oil ^(f) (lbs/ 1000 gal)
NO _x ^(c)	58	8.64
SO _x ^(g)	0.6	7.4
PM ^(d)	7.6	3.3
PM-10 ^(d)	7.6	2.3
PM-2.5 ^(d)	7.6	1.55
CO ^(e)	40	5.0
VOC	5.5	0.2
Formaldehyde	0.075	0.048
Hexane	1.8	-
Greenhouse Gases ^(h)	(kg/mmbtu)	(kg/gal)
Carbon Dioxide	53.06	73.96
Methane	0.001	0.003
Nitrous Oxide	0.0001	0.0006
High Heat Values		
Natural Gas	0.0010533 mmbtu/scf	
Fuel Oil	0.138 mmbtu/gal	

References for Emission Factors
(a) AP-42, 7/98, Section. 1.4, <i>Natural Gas Combustion</i> , Tables 1.4-1, 1.4-2
(b) Fuel usage obtained from utilities on a monthly basis
(c) Average of source tests conducted on all 3 boilers September 2002 burning natural gas after FGR installed. Assumed FGR resulted in similar Nox reduction for oil.
(d) All PM from natural gas is assumed <1μ, so PM-10, PM-2.5 and total PM have equal EFs, AP-42, Natural Gas Combustion, Table 1.4-2. The PM emission factor for fuel oil is the sum of filterable and condensable PM.
(e) AP-42, 1/95, Section. 1.4, <i>Natural Gas Combustion</i> , Table 1.4-2. Consistent with previous stack tests.
(f) AP-42, 9/98, Section. 1.3, <i>Fuel Oil Combustion</i> , Table 1.3-1 with Errata, Table 1.3-3, and Table 1.3-6.
(g) Boilers>100 MMBtu/hr: SO _x Emission Factor (SO ₂ {142S} + SO ₃ {5.7S}) = 147.7 * S (from AP-42, Table 1.3-1 w/Errata) (S = weight % sulfur in oil)(Sulfur content per analysis on oil in tanks in August 01', no new oil delivered in 02'/03')
(h) 40 CFR Part 98, Subpart C

Boiler ID	Boiler TA-3-22-1		Boiler TA-3-22-2		Boiler TA-3-22-3	
	EQPT-24	EQPT-141	EQPT-25	EQPT-137	EQPT-26	EQPT-138
Type of fuel	Natural Gas	#2 Fuel oil	Natural Gas	#2 Fuel oil	Natural Gas	#2 Fuel oil
Units	mcsf	gallons	mcsf	gallons	mcsf	gallons
Annual Use	1,154	0	62,125	0	276,664	0

Equations for Emissions Calculations

Criteria Pollutants Emissions for NG Use (ton/year) = Fuel (MSCF/year) / 1 MMscf/1000 Mscf * EF (lb/MMscf) * (1 ton/2000 lb)

Criteria Pollutants Emissions for FO Use (ton/year) = Fuel (gal/year) * EF (lb/1000 gal) * (1 ton/2000 lb)

GHG Emissions for NG Use (metric tons/yr) = EF (kg/mmbtu) * Fuel (Mscf/yr)/1 MMscf/1000 Mscf * HHV (mmbTU/scf) * metric ton/1000 kg

GHG Emissions for FO Use (metric tons/yr) = EF (kg/mmbtu) * Fuel (gal/yr) * HHV (mmbTU/gal) * metric ton/1000 kg

2020 Boiler Emissions for Annual EI Reporting

Pollutant	Boiler TA-3-22-1		Boiler TA-3-22-2		Boiler TA-3-22-3	
	EQPT-24	EQPT-141	EQPT-25	EQPT-137	EQPT-26	EQPT-138
	Annual Emissions (NG) (tons/yr)	Annual Emissions Fuel Oil (tons/yr)	Annual Emissions (NG) (tons/yr)	Annual Emissions Fuel Oil (tons/yr)	Annual Emissions (NG) (tons/yr)	Annual Emissions Fuel Oil (tons/yr)
NO _x ^(c)	0.033	0.000	1.802	0.000	8.023	0.000
SO _x ^(g)	0.000	0.000	0.019	0.000	0.083	0.000
PM ^(d)	0.004	0.000	0.236	0.000	1.051	0.000
PM-10 ^(d)	0.004	0.000	0.236	0.000	1.051	0.000
PM-2.5 ^(d)	0.004	0.000	0.236	0.000	1.051	0.000
CO ^(e)	0.023	0.000	1.243	0.000	5.533	0.000
VOC	0.003	0.000	0.171	0.000	0.761	0.000
Formaldehyde	0.000	0.000	0.002	0.000	0.010	0.000
Hexane	0.001	0.000	0.056	0.000	0.249	0.000
Greenhouse Gases ^(h)	(metric tons/year)	(metric tons/year)	(metric tons/year)	(metric tons/year)	(metric tons/year)	(metric tons/year)
Carbon Dioxide	64.49	0.00	3,472.05	0.00	15,462.22	0.00
Methane	0.00	0.00	0.07	0.00	0.29	0.00
Nitrous Oxide	0.00	0.00	0.01	0.00	0.03	0.00

2020 Emission Inventory | AI856 LANL - Power Plant Combustion Turbine

Year 2020
Type Turbine
NMED ID EQPT-112
Title V Designation TA-3-22-CT-1
Description Combustion Turbine

Equations for Emissions Calculations

Annual Emissions (tons/year) = Annual Gas Use (MMscf) * EF (lb/MMscf) * (1 ton/2000 lb)

Greenhouse Gas Emissions (metric tons/yr) = EF (kg/mmbtu) * Fuel (MMscf/yr) * (1,000,000 scf/1 MMscf) * HHV (mmBTU/scf) * metric ton/1000 kg

Pollutant	Emission Factors (lb/MMscf)	Annual Emissions (tons/year)	Calculation Basis
NOx	50.5	5.541	a
SOx	3.5	0.384	b
PM	6.8	0.746	c
PM ₁₀	6.8	0.746	c
PM _{2.5}	6.8	0.746	c
CO	10.5	1.152	a
VOC	2.2	0.241	d
Acetaldehyde	4.12E-02	0.005	e
Copper	7.11E-02	0.008	f
Ethylbenzene	3.30E-02	0.004	e
Formaldehyde	7.31E-01	0.080	e
Manganese	8.24E-02	0.009	f
Nickel	1.18E-01	0.013	f
Propylene Oxide	2.99E-02	0.003	e
Toluene	1.34E-01	0.015	e
Xylenes (isomers)	6.59E-02	0.007	e
Greenhouse Gases	Emission Factor (kg/mmbtu)	Annual Emissions (metric tons/year)	Calculation Basis
Carbon Dioxide	53.06	12,264.755	g
Methane	0.001	0.2311	g
Nitrous Oxide	0.0001	0.0231	g

Annual Gas Use	High Heat Value
219.452 MMscf	0.0010533 mmBTU/scf

References for Emission Factors
(a) Values are from the initial compliance test (TRC - October 22, 2007). Test shows average NOx as 11.29 lbs/hr and CO as 2.35 lbs/hr. These were divided by the gas flow rate of 0.223620 MMscf/hr to get 50.48 lb/MMscf (rounded to 50.5) for NOx and 10.5 lb/MMscf for CO. The SCFH value (fuel flow rate) from the compliance test report (223620 SCFH or 223.6 MSCFH).
(b) The SOx emission factor was taken from AP-42 Table 3.1-2a. The default value is used when percent sulfur is unknown (0.0034 lb/mmbtu). This is equivalent to converting the 2 grains per 100 scf to percent. The 0.0034 lb/mmbtu was converted to lb/mmscf by multiplying by 1030 btu/scf (the heat value of natural gas), to provide 3.5 lb/mmscf.
(c) PM and PM10 were calculated by taking the AP-42, Table 3.1-2a, EF of 6.6E-3 lb/MMBtu and multiplying it by 1030 BTU/scf to get 6.8 lb/MMscf.
(d) The VOC emission factor was taken from AP-42 Table 3.1-2a. The factor, 2.1 E-03 lb/mmbtu, was converted to lb/mmscf by multiplying by 1030 giving 2.2 lbs/mmscf.
(e) Emission factor from AP-42, table 3.1-3 (lb/mmbtu). This was multiplied by 1030 Btu/scf to provide the lb./mmscf factor.
(f) Emission factors from EPA FIRE database (SCC: 20300202 & 20200201). These values were also converted from lb/mmbtu to lb/mmscf.
(g) 40 CFR Part 98, Subpart C

2020 Emission Inventory | A1856 LANL - Evaporative Sprayers

Year 2020
Type Fugitives
NMED ID RPNT-35, RPNT-36, RPNT-37, RPNT-38, RPNT-39, RPNT-41
Title V Designation TA-60-EVAP-1, TA-60-EVAP-2, TA-60-EVAP-3, TA-60-EVAP-4, TA-60-EVAP-5, TA-60-EVAP-6
Description Water Spray Evaporators

Emission Factors

HAPs	January - June EFs		July - December EFs	
	PPM ^a	Weight Fraction	PPM ^a	Weight Fraction
Total PCB	3.94E-07	3.94E-13	3.94E-07	3.94E-13
Chloroform	0.0024	2.40E-09	0.0007	6.95E-10
Chloromethane	0.0044	4.40E-09	0.0044	4.43E-09
Bromoform	0.0005	5.00E-10	0.0005	5.10E-10
Cyanide	0.0216	2.16E-08	0.0054	5.37E-09
Manganese	0.0094	9.40E-09	0.0025	2.49E-09
Mercury	Not Detected	N/A	0.00014	1.37E-10
Nickel	0.0157	1.57E-08	0.021	2.05E-08
Antimony Compounds	0.00629	6.29E-09	Not Detected	N/A
Arsenic Compounds	0.0258	2.58E-08	Not Detected	N/A
Selenium Compounds	0.0270	2.70E-08	Not Detected	N/A
Cobalt Compounds	0.0017	1.70E-09	Not Detected	N/A

References for Emission Factors		
(a) Values from pond sampling laboratory results for GC Semivolatile Herbicide, GC Semivolatile Pesticide, GC/MS Semivolatile, GC/MS Volatile, General Chemistry, Metals and Radiochemistry, GEL Laboratories. Emission factors from either the 2015, 2018 or 2020 analysis were used depending on what HAP was sampled for and what HAP was detected.		
(b) Water Density = 8.34 lb/gallon		
(c) Max Pump Rate Per Sprayer = 7.51 gallons/min.		
(d) Evaporation Rate = 42.5 Percent		
Particulate Analytical Data		
	PPM	Weight Fraction
Pond TDS	120450.00	0.12
SMI Model 120F (Sprayers 1-5)	PM10	0%
	PM2.5	0%
SMI Model 420B (Sprayer 6)	PM10	0.44%
	PM2.5	0%

(a) Values from pond sampling laboratory results for GC Semivolatile Herbicide, GC Semivolatile Pesticide, GC/MS Semivolatile, GC/MS Volatile, General Chemistry, Metals and Radiochemistry, GEL Laboratories. Emission factors from 2020 sampling event.

2020 Hours of Operation

Source ID	TA-60-EVAP-1	TA-60-EVAP-2	TA-60-EVAP-3	TA-60-EVAP-4	TA-60-EVAP-5	TA-60-EVAP-6
January - June Hours	2,177	637	0	10	424	0
July - December Hours	28	2803	0	0	1875	0

Equation for Emissions Calculations

$$\text{Annual Emissions (tons/yr)} = \frac{\text{Water Density (lb/gal)} * \text{Max Pump Rate (g/min)} * (60 \text{ min/hr}) * \text{Hours of Operation (hr)} * \text{Evaporation Rate}/100 * \text{Weight Fraction} * (1 \text{ ton}/2000 \text{ lb})$$

$$\text{Particulate Matter (lbs/hr)} = \text{Annual Emissions (tons/yr)} * (1 \text{ ton}/2000 \text{ lb}) * (8760 \text{ hrs/yr})$$

2020 Evaporative Sprayers Emissions for Annual EI Reporting

Pollutant	RPNT-35 TA-60-EVAP-1 (tons/yr)		RPNT-36 TA-60-EVAP-2 (tons/yr)		RPNT-37 TA-60-EVAP-3 (tons/yr)		RPNT-38 TA-60-EVAP-4 (tons/yr)		RPNT-39 TA-60-EVAP-5 (tons/yr)		RPNT-41 TA-60-EVAP-6 (tons/yr)	
	(tons/yr)	(lbs/hr)	(tons/yr)	(lbs/hr)	(tons/yr)	(lbs/hr)	(tons/yr)	(lbs/hr)	(tons/yr)	(lbs/hr)	(tons/yr)	(lbs/hr)
Total PCB	6.94E-10		1.08E-09		0		3.15E-12		7.23E-10		0	
Chloroform	4.19E-06		2.78E-06		0		1.92E-08		1.85E-06		0	
Chloromethane	7.75E-06		1.22E-05		0		3.51E-08		8.12E-06		0	
Bromoform	8.81E-07		1.40E-06		0		3.99E-09		9.33E-07		0	
Cyanide	3.77E-05		2.30E-05		0		1.72E-07		1.53E-05		0	
Manganese	1.64E-05		1.04E-05		0		7.51E-08		6.91E-06		0	
Mercury	3.07E-09		3.07E-07		0		0.E+00		2.05E-07		0	
Nickel	2.78E-05		5.39E-05		0		1.25E-07		3.60E-05		0	
Antimony Compounds	1.09E-05		3.20E-06		0		5.02E-08		2.13E-06		0	
Arsenic Compounds	4.49E-05		1.31E-05		0		2.06E-07		8.74E-06		0	
Selenium Compounds	4.69E-05		1.37E-05		0		2.16E-07		9.14E-06		0	
Cobalt Compounds	2.96E-06		8.65E-07		0		1.36E-08		5.76E-07		0	
Total HAPs	2.00E-04		1.35E-04		0		9.17E-07		9.00E-05		0	
Particulate Matter	(tons/yr)	(lbs/hr)	(tons/yr)	(lbs/hr)	(tons/yr)	(lbs/hr)	(tons/yr)	(lbs/hr)	(tons/yr)	(lbs/hr)	(tons/yr)	(lbs/hr)
TSP	212.10	48.42	330.89	75.55	0	0	0.96	0.22	221.14	50.49	0	0
PM10	0	0	0	0	0	0	0	0	0	0	0	0
PM2.5	0	0	0	0	0	0	0	0	0	0	0	0