Data Base Summary (Statement of Basis)

TV Permit

Type of Permit Action: TV Renewal Permit

PSD or Not	Minor or Title V	Portable or Not
Minor (Synthetic Minor, no BACT)	**Major-Title V**	**Stationary**

Facility: Los Alamos National Laboratory
Company: U.S. Department of Energy National Nuclear Security Administration
Facility Type: FED-Dept of Energy
Permit Nos. (NSR) 632, 634-M2, 1081-M1, 1081-M1R1, 1081-M1R3, 1081-M1R5, 1081-M1R6, 2195B-M3, 2195F-R4, GCP-3-2195G, 2195H, 2195N-R2 and 2195P-R2
Operating Permit No. (TV) P100-R3
IDEA ID No. 856 - PRT20190004
AIRS ID No. 350280001
SIC CODE: 9711: National security
Permit Writer: James E. Nellessen

Application Notarized Date: February 25, 2019
Receive Date: February 26, 2019
Timeliness of TV Application: **Yes**
Ruled Incomplete: No (N/A, not applicable)
Ruled Complete: April 26, 2019
APP. sent to Field Office: April 27, 2019
PSD APP. Sent to EPA: N/A
Public Notice Date&Newspaper: TBD
Comments Due: TBD
Analysis Review Begins: N/A
Analysis Review Ends: N/A
Public Hearing: TBD
Proposed Permit to EPA Acknowledged: TBD
Permit Due: October 25, 2020
Permit Issued: TBD
PSD Permit to EPA: N/A

Facility Location: This facility is located in the town of Los Alamos in Los Alamos County, New Mexico.
UTM ZONE: 13; **Datum:** NAD83
UTM Easting: 380,790 meters
UTM Northing: 3,970,800 meters
Elevation: 7350 feet
County: Los Alamos

In a Sensitive Area: No

Contact Name: Margie Stockton
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Consultant Name: N/A
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Email: N/A

Consultant Address: N/A
N/A

Title V AFFECTED PROGRAM* NOTIFICATION:

Affected Program	Distance	Units	Date Letter Sent
County - Bernalillo	56	km	
Municipality - Jicarilla Apache Tribe	67.6	km	
Municipality - Pueblo of Cochiti	12.9	km	
Municipality - Pueblo of Jemez	19	km	
Municipality - Pueblo of Laguna	77	km	
Municipality - Pueblo of Nambe	24	km	
Municipality - Pueblo of Ohkay Owingeh	19.3	km	
Municipality - Pueblo of Picuris	56.3	km	
Municipality - Pueblo of Pojoaque	12.9	km	
Municipality - Pueblo of San Felipe	38.6	km	
Municipality - Pueblo of San Ildefonso	4.8	km	
Municipality - Pueblo of Sandia	61	km	
Municipality - Pueblo of Santa Clara	25.8	km	
Municipality - Pueblo of Santo Domingo	27.3	km	
Municipality - Pueblo of Taos	69.2	km	
Municipality - Pueblo of Tesuque	19	km	
Municipality - White Rock	16.1	km	
State - Pueblo of Santa Ana	40	km	
State - Pueblo of Zia	49.2	km	

*As defined by 20.2.70.7.B: All States, local air pollution control programs, and Indian Tribes and Pueblos, that are within 50 miles (80.5 km) of the source.

NSR AGENCY* NOTIFICATION:

Agency	Distance	Units	Date Email Sent
Not applicable (this is a TV permit action)			

*As required by 20.2.72.206.A.(7): Mail a copy of the public notice at the same time it is sent for publication to the appropriate agency in the following locations if the source will locate within 50 kilometers (31.1 miles) of the boundary of other states, Bernalillo County, or a Class I Area.

PART II - FACILITY SPECIFICATIONS

Table 102.A: Total Pollutant Emissions from Entire Facility:

Pollutant	Emissions (tons per year)	Emission Type	Change in Emissions since Permit P100-R2M1
Carbon Monoxide	225	Allowable	0
Nitrogen Dioxide	245	Allowable	0
Particulate Matter (PM, total)	120	Allowable	0
Particulate Matter (2.5 microns or less)	120	Allowable	0
Particulate Matter (10 microns or less)	120	Allowable	0
Sulfur Dioxide	150	Allowable	0
Volatile Organic Compounds (VOC)	200	Allowable	0
Carbon Dioxide (equivalent, CO_2e)	264,450	Potential	N/A (previous TV stated > 75,000)

Note: Total Potential Pollutant Emissions in Table 102.A, may include fugitive emissions; routine or predictable, startup, shutdown, and maintenance emissions (SSM); and permitted malfunction allowances if these are a sources of regulated air pollutants from this facility.

Table 102.B: Total Potential Hazardous Air Pollutants (HAPs)* and State Toxic Air Pollutants (TAPs)

Pollutant	Emissions (tons per year)	Emission Type	Change in Emissions since Permit P100-R2M1
Individual HAP (limit each)	8	Allowable	0
Acetaldehyde; (Ethyl aldehyde)	8	Allowable	0
Ammonia (state air toxic, not a HAP)	23.2	Allowable	Not available
Benzene	8	Allowable	0
Benzyl Chloride	8	Allowable	0
Beryllium	8	Allowable	0
Epoxybutane (1,2-) (1,2-Butylene oxide)	8	Allowable	0
Ethylene Glycol	8	Allowable	0

Table 102.B: Total Potential Hazardous Air Pollutants (HAPs)* and State Toxic Air Pollutants (TAPs)

Pollutant	**Emissions** (tons per year)	**Emission Type**	**Change in Emissions since Permit P100-R2M1**
Formaldehyde	8	Allowable	0
Glycol Ethers	8	Allowable	0
Hexane	8	Allowable	0
Hydrofluoric Acid; (Hydrogen fluoride)	8	Allowable	0
Methyl tert butyl ether	8	Allowable	0
Nitrophenol (4-); (p-Nitrophenol)	8	Allowable	0
Styrene	8	Allowable	0
Toluene; (Methyl benzene)	8	Allowable	0
Xylenes (total); (Xylol)	8	Allowable	0
Total HAP	24	Allowable	0

* HAP emissions are included in the Table 102.A VOC emissions total.
** Total HAP emissions may not agree with the sum of individual HAPs because only individual HAPs emitted at a rate greater than 1.0 ton per year are listed in Table 102.B.

AIR POLLUTION CONTROL DEVICES:

Subject Item ID, Type, ID, (Unit #)	SI Description	Primary	Secondary	Tertiary	Quaternary	Control Equipment Mfg & model (or equivalent)
Boiler tpy combined emissions (EQPT144)	TA-16-1484-BS-1&2; TA - 53-365-BHW-1&2; TA-55-6-BHW-1&2; RLUOB-BHW-1,2,3,4	Low NOX Burners				
RLUOB Boilers (EQPT172)	RLUOB Boilers BHW-1,2,3,4 (tpy combined-oil+gas)	Low NOX Burners				
RLUOB-BHW-1 (gas) (EQPT90)	Boiler-CMRR-BHW-1 at TA-55-440 (gas)	Low NOX Burners				
RLUOB-BHW-1 (oil) (EQPT149)	Boiler-CMRR-BHW-1 at TA-55-440 (pph oil)	Low NOX Burners				
RLUOB-BHW-2 (gas) (EQPT104)	Boiler-CMRR-BHW-2 at TA-55-440 (gas)	Low NOX Burners				
RLUOB-BHW-2 (oil) (EQPT150)	Boiler-CMRR-BHW-2 at TA-55-440 (pph oil)	Low NOX Burners				
RLUOB-BHW-3 (gas) (EQPT105)	Boiler-CMRR-BHW-3 at TA-55-440 (gas)	Low NOX Burners				
RLUOB-BHW-3 (oil) (EQPT151)	Boiler-CMRR-BHW-3 at TA-55-440 (pph oil)	Low NOX Burners				
RLUOB-BHW-4 (gas) (EQPT106)	Boiler-CMRR-BHW-4 at TA-55-440 (gas)	Low NOX Burners				
RLUOB-BHW-4 (oil) (EQPT152)	Boiler-CMRR-BHW-4 at TA-55-440 (pph oil)	Low NOX Burners				
TA-16-1484-BS-1 (EQPT134)	Low NOx Boiler TA-16-1484-BS-1	Low NOX Burners				
TA-16-1484-BS-2 (EQPT53)	Low NOx Boiler TA-16-1484-BS-2	Low NOX Burners				
TA-3-141 (ACT 3)	Beryllium Activity-Be Technology Facility - Machining TA-3-141	Particulate Air Filter (HEPA)	Activated Clay Adsorption	Waterborne Coatings		
TA-3-22-1 (gas) (EQPT24)	Power Plant Boiler (pph natural gas)	Flue Gas Recirculation				
TA-3-22-1 (oil) (EQPT141)	Power Plant Boiler (pph, No. 2 fuel oil)	Flue Gas Recirculation				
TA-3-22-2 (gas) (EQPT25)	Power Plant Boiler (pph, natural gas)	Flue Gas Recirculation				

AIR POLLUTION CONTROL DEVICES:

Subject Item ID, Type, ID, (Unit #)	SI Description	Primary	Secondary	Tertiary	Quaternary	Control Equipment Mfg & model (or equivalent)
TA-3-22-2 (oil) (EQPT137)	Power Plant Boiler (pph, No. 2 fuel oil)	Flue Gas Recirculation				
TA-3-22-3 (gas) (EQPT26)	Power Plant Boiler (pph, natural gas + tpy Phase 1)	Flue Gas Recirculation				
TA-3-22-3 (oil) (EQPT138)	Power Plant Boiler (pph, No. 2 fuel oil + tpy Phase 1)	Flue Gas Recirculation				
TA-3-22-4 (gas) (EQPT164)	Power Plant Boiler (pph, natural gas)					
TA-3-22-4 (oil) (EQPT163)	Power Plant Boiler (pph, No. 2 fuel oil)					
TA-3-22-4&5 (gas tpy) (EQPT170)	Power Plant Boiler (tpy, natural gas + Phase 3)					
TA-3-22-4&5 (oil tpy) (EQPT169)	Power Plant Boiler (tpy, No. 2 fuel oil)					
TA-3-22-5 (gas) (EQPT168)	Power Plant Boiler (pph, natural gas)					
TA-3-22-5 (oil) (EQPT167)	Power Plant Boiler (pph, No. 2 fuel oil)					
TA-3-22-CHP-1 (EQPT166)	Combustion Turbine + Heat recovery steam generator (HRSG)	Low NOX Burners				
TA-3-22-CT-1 (EQPT112)	Combustion Turbine	Low NOX Burners				
TA-3-66 (ACT 41)	Beryllium Activity-Sigma Facility-electroplating/metallography	Particulate Air Filter (HEPA)	Waterborne Coatings			
TA-35-213 (ACT 2)	Beryllium Activity-Be Target Fabrication Facility - Machining TA-35-213	Fabric Filter	Particulate Air Filter (HEPA)			
TA-52-11 (EQPT89)	Data Disintegrator / Industrial Shredder	Cyclone-High Efficiency	Baghouse			
TA-55-6-BHW-1 (EQPT29)	Sellers Boiler TA-55-6-BHW-1	Low NOX Burners				
TA-55-6-BHW-2 (EQPT30)	Sellers Boiler TA-55-6-BHW-2	Low NOX Burners				

AIR POLLUTION CONTROL DEVICES:

Subject Item ID, Type, ID, (Unit #)	SI Description	Primary	Secondary	Tertiary	Quaternary	Control Equipment Mfg & model (or equivalent)
TA-55-PF4 CM Furnace (EQPT118)	Beryllium Activity-Plutonium Facility Foundry Operations: Beryllium Furnace	Particulate Air Filter (HEPA)				
TA-55-PF4 (ACT 6)	Beryllium Activity-Plutonium Facility Beryllium machining, weld cutting / dressing and metallography	Particulate Air Filter (HEPA)				
TA-60-BDM (EQPT116)	Hot Mix Asphalt Plant Dryer (natural gas burner)	Cyclone-High Efficiency	Baghouse			

EQUIPMENT SPECIFICATIONS (Active/Alternative):

Unit No.	Unit Type	Make	Model No.	Serial No.	Yr of Construction	Yr of Manufacture	Operating Rate Max/Site	Operating Capacity Max/Site	Subject Item Status	Subject Item Description
Boiler tpy combined emissions EQPT144	Boiler	External combustion boilers (all 10)	Not applicable	see each unit	01-JAN-09	01-JAN-88	14.6 MM BTU/h / 7.47 MM BTU/h	14.6 MM BTU/h / 7.47 MM BTU/h	Active	TA-16-1484-BS-1&2; TA-53-365-BHW-1&2; TA-55-6-BHW-1&2; RLUOB-BHW-1,2,3,4
Facility-wide Open Burning RPNT34	Fugitives	Not applicable	Not applicable	Not applicable			/	/	Active	Fugitives - Open Burning
LANL-FW-CHEM ACT 7	Research/Testing	R&D Activities – Lab-wide	Not applicable	Not applicable			/	/	Active	Chemical Usage Lab-wide (R&D Activities, except RLUOB)

EQUIPMENT SPECIFICATIONS (Active/Alternative):

Unit No.	Unit Type	Make	Model No.	Serial No.	Yr of Construction	Yr of Manufacture	Operating Rate Max/Site	Operating Capacity Max/Site	Subject Item Status	Subject Item Description
RLUOB Boilers EQPT172	Boiler	Unilux RLUOB boilers (4)	ZF1100W	see each unit	01-JAN-09	01-JAN-09	11 MM BTU/h / 11 MM BTU/h	11 MM BTU/h / 11 MM BTU/h	Active	RLUOB Boilers BHW-1,2,3,4 (tpy combined-oil+gas)
RLUOB-BHW-1 (gas) EQPT90	Boiler	Unilux	ZF1100W	A1874	01-JAN-09	01-JAN-09	11 MM BTU/h / 11 MM BTU/h	11 MM BTU/h / 11 MM BTU/h	Active	Boiler-CMRR-BHW-1 at TA-55-440 (gas)
RLUOB-BHW-1 (oil) EQPT149	Boiler	Unilux	ZF1100W	A1874	01-JAN-09	01-JAN-09	11 MM BTU/h / 11 MM BTU/h	11 MM BTU/h / 11 MM BTU/h	Active	Boiler-CMRR-BHW-1 at TA-55-440 (pph oil)
RLUOB-BHW-2 (gas) EQPT104	Boiler	Unilux	ZF1100W	A1875	01-JAN-09	01-JAN-09	11 MM BTU/h / 11 MM BTU/h	11 MM BTU/h / 11 MM BTU/h	Active	Boiler-CMRR-BHW-2 at TA-55-440 (gas)
RLUOB-BHW-2 (oil) EQPT150	Boiler	Unilux	ZF1100W	A1875	01-JAN-09	01-JAN-09	11 MM BTU/h / 11 MM BTU/h	11 MM BTU/h / 11 MM BTU/h	Active	Boiler-CMRR-BHW-2 at TA-55-440 (pph oil)
RLUOB-BHW-3 (gas) EQPT105	Boiler	Unilux	ZF1100W	A1876	01-JAN-09	01-JAN-09	11 MM BTU/h / 11 MM BTU/h	11 MM BTU/h / 11 MM BTU/h	Active	Boiler-CMRR-BHW-3 at TA-55-440 (gas)

EQUIPMENT SPECIFICATIONS (Active/Alternative):

Unit No.	Unit Type	Make	Model No.	Serial No.	Yr of Construction	Yr of Manufacture	Operating Rate Max/Site	Operating Capacity Max/Site	Subject Item Status	Subject Item Description
RLUOB-BHW-3 (oil) EQPT151	Boiler	Unilux	ZF1100W	A1876	01-JAN-09	01-JAN-09	11 MM BTU/h / 11 MM BTU/h	11 MM BTU/h / 11 MM BTU/h	Active	Boiler-CMRR-BHW-3 at TA-55-440 (pph oil)
RLUOB-BHW-4 (gas) EQPT106	Boiler	Unilux	ZF1100W	TBD	01-JAN-09	01-JAN-09	11 MM BTU/h / 11 MM BTU/h	11 MM BTU/h / 11 MM BTU/h	Active	Boiler-CMRR-BHW-4 at TA-55-440 (gas)
RLUOB-BHW-4 (oil) EQPT152	Boiler	Unilux	ZF1100W	TBD	01-JAN-09	01-JAN-09	11 MM BTU/h / 11 MM BTU/h	11 MM BTU/h / 11 MM BTU/h	Active	Boiler-CMRR-BHW-4 at TA-55-440 (pph oil)
RLUOB-CHEM ACT 42	Research/Testing	Chem Activities	Not applicable	Not applicable			/	/	Active	Chemical Usage Bldg TA-55-400 (lab portion of RLUOB Bldg)
RLUOB-GEN 1 EQPT128	Internal combustion engine	Cummins Generator and Engine	KT A50G9 (eng)	I060970810 (gen) / 25314401 (eng)	01-JAN-09	01-SEP-06	1500 kW / 2200 hp	1500 kW / 2220 hp	Active	Cummins CI-RICE Diesel Generator - CMRR
RLUOB-GEN 2 EQPT153	Internal combustion engine	Cummins Generator and Engine	KT A50G9 (eng)	I060970811 (gen) / 25314399 (eng)	01-JAN-09	01-SEP-06	1500 kW / 2220 hp	1500 kW / 2220 hp	Active	Cummins CI-RICE Diesel Generator and Engine - CMRR

EQUIPMENT SPECIFICATIONS (Active/Alternative):

Unit No.	Unit Type	Make	Model No.	Serial No.	Yr of Construction	Yr of Manufacture	Operating Rate Max/Site	Operating Capacity Max/Site	Subject Item Status	Subject Item Description
RLUOB-GEN 3 EQPT154	Internal combustion engine	Cummins Generator and Engine	KT A50G9 (eng)	I060970812 (gen) / 33165566 (eng)	01-JAN-09	01-SEP-06	1500 kW / 2220 hp	1500 kW / 2220 hp	Active	Cummins CI-RICE Diesel Generator and Engine - CMRR
SSM for TA-3-22-CHP-1 RPNT40	Stack/Vent	not applicable	not applicable	not applicable	26-JUL-18	Not applicable	/	/	Active	Turbine-HRSG Startup Shutdown Maintenance (SSM)
Standby-Generators EQPT96	Internal combustion engine	Placeholder for any TBD units	TBD	TBD			/	/	Active	Diesel Generators (placeholder for TBD)
TA-16-1484-BS-1 EQPT134	Boiler	Sellers	183 H.P.-SH-LN390	100848-B	01-JAN-95	01-JAN-95	7.47 MM BTU/h / 7.47 MM BTU/h	7.47 MM BTU/h / 7.47 MM BTU/h	Active	Low NOx Boiler TA-16-1484-BS-1
TA-16-1484-BS-2 EQPT53	Boiler	Sellers	183 H.P.-SH-LN390	100848-A	01-JAN-95	01-JAN-95	7.47 MM BTU/h / 7.47 MM BTU/h	7.47 MM BTU/h / 7.47 MM BTU/h	Active	Low NOx Boiler TA-16-1484-BS-2
TA-3-1404-GEN EQPT171	Internal combustion engine	Cummins	DFLC-5554001	E020369571	01-JAN-03	01-JAN-02	1250 kW / 1250 kW	1250 kW / 1250 kW	Active	Cummins CI RICE Generator
TA-3-141 ACT 3	Beryllium Work	Be Machining TA-3-141	Not applicable	Not applicable	01-JAN-98	01-JAN-98	/	1000 lb/d / 10000 lb/y	Active	Beryllium Activity-Be Technology Facility - Machining TA-3-141

EQUIPMENT SPECIFICATIONS (Active/Alternative):

Unit No.	Unit Type	Make	Model No.	Serial No.	Yr of Construction	Yr of Manufacture	Operating Rate Max/Site	Operating Capacity Max/Site	Subject Item Status	Subject Item Description
TA-3-22-1 (gas) EQPT24	Boiler	Edgemoor Iron Works	Not applicable	4008	01-JAN-50	01-JAN-50	210 MM BTU/h / 178.5 MM BTU/h	178.5 MM BTU/h / 178.5 MM BTU/h	Active	Power Plant Boiler (pph natural gas)
TA-3-22-1 (oil) EQPT141	Boiler	Edgemoor Iron Works	Not applicable	4008	01-JAN-50	01-JAN-50	210 MM BTU/h / 178.5 MM BTU/h	210 MM BTU/h / 178.5 MM BTU/h	Active	Power Plant Boiler (pph, No. 2 fuel oil)
TA-3-22-2 (gas) EQPT25	Boiler	Edgemoor Iron Works	Not applicable	4009	01-JAN-50	01-JAN-50	210 MM BTU/h / 178.5 MM BTU/h	178.5 MM BTU/h / 178.5 MM BTU/h	Active	Power Plant Boiler (pph, natural gas)
TA-3-22-2 (oil) EQPT137	Boiler	Edgemoor Iron Works	Not applicable	4009	01-JAN-50	01-JAN-50	210 MM BTU/h / 178.5 MM BTU/h	210 MM BTU/h / 178.5 MM BTU/h	Active	Power Plant Boiler (pph, No. 2 fuel oil)
TA-3-22-3 (gas) EQPT26	Boiler	Union Iron Works	Not applicable	11804	01-JAN-52	01-JAN-52	210 MM BTU/h / 178.5 MM BTU/h	178.5 MM BTU/h / 178.5 MM BTU/h	Active	Power Plant Boiler (pph, natural gas + tpy Phase 1)
TA-3-22-3 (oil) EQPT138	Boiler	Union Iron Works	Not applicable	11804	01-JAN-52	01-JAN-52	210 MM BTU/h / 178.5 MM BTU/h	210 MM BTU/h / 178.5 MM BTU/h	Active	Power Plant Boiler (pph, No. 2 fuel oil + tpy Phase 1)
TA-3-22-4 (gas) EQPT164	Boiler	Victory Energy Operations ~~Cleaver Brooks~~	F2-WB-1800-S150E ~~CBEX Elite~~	14974-1[1]	TBD[1]	8/27/2019[1]	72.3 MM BTU/h / 72.3 MM BTU/h	72.3 MM BTU/h / 72.3 MM BTU/h	Active	Power Plant Boiler (pph, natural gas)

EQUIPMENT SPECIFICATIONS (Active/Alternative):

Unit No.	Unit Type	Make	Model No.	Serial No.	Yr of Construction	Yr of Manufacture	Operating Rate Max/Site	Operating Capacity Max/Site	Subject Item Status	Subject Item Description
TA-3-22-4 (oil) EQPT163	Boiler	Victory Energy Operations ~~Cleaver Brooks~~	F2-WB-1800-S150E ~~CBEX Elite~~	14974-2[1]	TBD[1]	8/27/2019[1]	72.3 MM BTU/h / 72.3 MM BTU/h	72.3 MM BTU/h / 72.3 MM BTU/h	Active	Power Plant Boiler (pph, No. 2 fuel oil)
TA-3-22-4&5 (gas tpy) EQPT170	Boiler	Victory Energy Operations ~~Cleaver Brooks~~	F2-WB-1800-S150E ~~CBEX Elite~~	14974-1[1]	TBD[1]	8/27/2019[1]	72.3 MM BTU/h / 72.3 MM BTU/h	72.3 MM BTU/h / 72.3 MM BTU/h	Active	Power Plant Boiler (tpy, natural gas + Phase 3)
TA-3-22-4&5 (oil tpy) EQPT169	Boiler	Victory Energy Operations ~~Cleaver Brooks~~	F2-WB-1800-S150E ~~CBEX Elite~~	14974-2[1]	TBD[1]	8/27/2019[1]	72.3 MM BTU/h / 72.3 MM BTU/h	72.3 MM BTU/h / 72.3 MM BTU/h	Active	Power Plant Boiler (tpy, No. 2 fuel oil)
TA-3-22-5 (gas) EQPT168	Boiler	Victory Energy Operations ~~Cleaver Brooks~~	F2-WB-1800-S150E ~~CBEX Elite~~	14974-1[1]	TBD[1]	8/27/2019[1]	72.3 MM BTU/h / 72.3 MM BTU/h	72.3 MM BTU/h / 72.3 MM BTU/h	Active	Power Plant Boiler (pph, natural gas)
TA-3-22-5 (oil) EQPT167	Boiler	Victory Energy Operations ~~Cleaver Brooks~~	F2-WB-1800-S150E ~~CBEX Elite~~	14974-2[1]	TBD[1]	8/27/2019[1]	72.3 MM BTU/h / 72.3 MM BTU/h	72.3 MM BTU/h / 72.3 MM BTU/h	Active	Power Plant Boiler (pph, No. 2 fuel oil)
TA-3-22-CHP-1 EQPT166	Turbine	Rolls Royce	TBD	TBD	TBD	TBD	47 MW / 47 MW	47 MW / 47 MW	Active	Combustion Turbine + Heat recovery steam generator (HRSG)
TA-3-22-CT-1 EQPT112	Turbine	Rolls Royce	RB211-6761 DLE	2011	01-JAN-05	01-JAN-03	32 MW / 27 MW	32 MW / 27 MW	Active	Combustion Turbine

EQUIPMENT SPECIFICATIONS (Active/Alternative):

Unit No.	Unit Type	Make	Model No.	Serial No.	Yr of Construction	Yr of Manufacture	Operating Rate Max/Site	Operating Capacity Max/Site	Subject Item Status	Subject Item Description
TA-3-66 ACT 41	Beryllium Work	Be electroplating / metallography	Not applicable	Not applicable	01-JAN-50	01-JAN-50	/	/ 10 g/24-h period	Active	Beryllium Activity-Sigma Facility-electroplating /metallography
TA-33-G-1P EQPT146	Internal combustion engine	Cummins	QST30-G5-NR1 (eng)	H010276941 (gen) / 37199764 (eng)	01-JAN-04	01-JAN-01	1490 hp / 1416 hp	1000 kW / 1416 hp	Active	Cummins CI-RICE Diesel Generator TA-33
TA-33-G-2 EQPT119	Internal combustion engine	Kohler	YANMAR4T NE84T-EKRW (eng)	2025460 (gen) / 52993 (eng)	01-AUG-07	01-JAN-03	20 kW / 36 hp	20 kW / 36 hp	Active	Kohler CI-RICE Diesel Generator TA-33, TA-36, TA-39
TA-33-G-3 EQPT120	Internal combustion engine	Kohler	YANMAR4T NE84T-EKRW (eng)	2025461 (gen) / 52992 (eng)	01-AUG-07	01-JAN-03	20 kW / 36 hp	20 kW / 36 hp	Active	Kohler CI-RICE Diesel Generator TA-33, TA-36, TA-39
TA-33-G-4 EQPT135	Internal combustion engine	Caterpillar	3306 (eng)	6PK01065 (gen) / 8JJ00615 (eng)	01-AUG-07	01-OCT-99	225 kW / 316 hp	316 hp / 225 kW	Active	Caterpillar CI-RICE Diesel Generator TA-33, TA-36, TA-39
TA-35-213 ACT 2	Beryllium Work	Be Machining TA-35-213	Not applicable	Not applicable	01-JAN-85	01-JAN-85	/	/	Active	Beryllium Activity-Be Target Fabrication Facility - Machining TA-35-213

EQUIPMENT SPECIFICATIONS (Active/Alternative):

Unit No.	Unit Type	Make	Model No.	Serial No.	Yr of Construction	Yr of Manufacture	Operating Rate Max/Site	Operating Capacity Max/Site	Subject Item Status	Subject Item Description
TA-48-GEN-1 EQPT147	Internal combustion engine	Cummins Generator and Engine	QSB7-G3NR3 (eng)	L100178636 (gen) / 73176927 (eng)	01-JAN-13	01-JAN-10	150 kW / 250 hp	150 kW / 250 hp	Active	Cummins CI-RICE Diesel Generator and Engine
TA-50-GEN-184 EQPT173	Internal combustion engine	Cummins	DFEJ-1798846	J170270398	01-JAN-18	01-JAN-17	450 kW / 765 hp	765 hp / 450 kW	Active	Cummins CI RICE Generator
TA-52-11 EQPT89	Shredder	Security Engineered Machinery (SEM)	1424	11892	01-JUL-04	30-SEP-02	1200 lb/h / 1200 lb/h	1200 lb/h / 1200 lb/h	Active	Data Disintegrator / Industrial Shredder
TA-53-365-BHW-1 EQPT11	Boiler	Sellers	15 Seniors-2-200-w	99031-1	01-JAN-88	01-JAN-88	8.37 MM BTU/h / 8.37 MM BTU/h	8.37 MM BTU/h / 8.37 MM BTU/h	Active	Boiler TA-53-365-BHW-1
TA-53-365-BHW-2 EQPT12	Boiler	Sellers	15 Seniors-2-200-w	99031-2	01-JAN-88	01-JAN-88	8.37 MM BTU/h / 8.37 MM BTU/h	8.37 MM BTU/h / 8.37 MM BTU/h	Active	Boiler TA-53-365-BHW-2
TA-55-6-BHW-1 EQPT29	Boiler	Sellers	350 H.P W-LN490	101319-B	06-SEP-01	01-JAN-01	14.6 MM BTU/h / 14.6 MM BTU/h	14.6 MM BTU/h / 14.6 MM BTU/h	Active	Sellers Boiler TA-55-6-BHW-1
TA-55-6-BHW-2 EQPT30	Boiler	Sellers	350 H.P W-LN490	101319-A	01-JAN-98	01-JAN-98	14.6 MM BTU/h / 14.6 MM BTU/h	14.6 MM BTU/h / 14.6 MM BTU/h	Active	Sellers Boiler TA-55-6-BHW-2
TA-55-DG-1 EQPT21	Parts Washer	Shopmade	Not reported	Not reported	01-JUN-98	01-JUN-98	20 L / 20 L	20 L / 20 L	Active	Degreaser - Ultrasonic Cold Batch TA-55-4
TA-55-GEN-1 EQPT156	Internal combustion engine	Whisper Watt	Isuzu Model: BZ-4LE2T (eng)	7150008 (gen) / 4LE2-298868 (eng)	01-JAN-14	01-JAN-14	20 kW / 40.2 hp	20 kW / 40.2 hp	Active	Whisper Watt CI-RICE Generator

EQUIPMENT SPECIFICATIONS (Active/Alternative):

Unit No.	Unit Type	Make	Model No.	Serial No.	Yr of Construction	Yr of Manufacture	Operating Rate Max/Site	Operating Capacity Max/Site	Subject Item Status	Subject Item Description
TA-55-GEN-2 EQPT155	Internal combustion engine	Whisper Watt	Isuzu Model: BZ-4LE2T (eng)	7150066 (gen) / 4LE2-299432 (eng)	01-JAN-14	01-JAN-14	20 kW / 40.2 hp	20 kW / 40.2 hp	Active	Whisper Watt CI-RICE Generator
TA-55-GEN-3 EQPT143	Internal combustion engine	Caterpillar Generator and Engine	C32 (eng)	G5C03702 (gen) / SYCO5263 (eng)	01-JAN-10	01-JAN-09	900 kW / 1335 hp	1335 hp / 900 kW	Active	Caterpillar CI-RICE Diesel Generator TA-55-371
TA-55-GEN-474 EQPT174	Internal combustion engine	Cummins	DFEJ-A056Y434	B170157959	01-JAN-18	01-JAN-17	450 kW / 680 hp	680 hp / 450 kW	Active	Cummins CI RICE Generator
TA-55-GEN-475 EQPT175	Internal combustion engine	Cummins	QSX15-G9	B170157958	01-JAN-18	01-JAN-17	450 kW / 680 hp	680 hp / 450 kW	Active	Cummins CI RICE Generator
TA-55-PF4 ACT 6	Beryllium Work	Be Machining TA-55-PF4	Not applicable	Not applicable	01-JAN-92	01-JAN-92	/	44 lb/d / 1100 lb/y	Active	Beryllium Activity-Plutonium Facility Beryllium machining, weld cutting / dressing and metallography
TA-60-BDM EQPT116	Asphalt Drum/Burner	BDM Engineering	TM2000	Unknown	01-SEP-02	11-JUN-73	60 tons/h / 49.5 tons/h	25 MM BTU/h / 6000 tons/y	Active	Hot Mix Asphalt Plant Dryer (natural gas burner)
TA-60-EVAP-1 RPNT35	Fugitives	SMI Evaporative Solutions	SMI 120	0053	01-JUL-16	01-JAN-16	9 gal/min / 7.51 gal/min	9 gal/min / 7.51 gal/min	Active	Evaporative Sprayer for basin water
TA-60-EVAP-2 RPNT36	Fugitives	SMI Evaporative Solutions	SMI 120	0054	01-JUL-16	01-JAN-16	9 gal/min / 7.51 gal/min	9 gal/min / 7.51 gal/min	Active	Evaporative Sprayer for basin water

EQUIPMENT SPECIFICATIONS (Active/Alternative):

Unit No.	Unit Type	Make	Model No.	Serial No.	Yr of Construction	Yr of Manufacture	Operating Rate Max/Site	Operating Capacity Max/Site	Subject Item Status	Subject Item Description
TA-60-EVAP-3 RPNT37	Fugitives	SMI Evaporative Solutions	SMI 120	0055	01-JUL-16	01-JAN-16	9 gal/min / 7.51 gal/min	9 gal/min / 7.51 gal/min	Active	Evaporative Sprayer for basin water
TA-60-EVAP-4 RPNT38	Fugitives	SMI Evaporative Solutions	SMI 120	0056	01-JUL-16	01-JAN-16	9 gal/min / 7.51 gal/min	9 gal/min / 7.51 gal/min	Active	Evaporative Sprayer for basin water
TA-60-EVAP-5 RPNT39	Fugitives	SMI Evaporative Solutions	SMI 120	0057	01-JUL-16	01-JAN-16	9 gal/min / 7.51 gal/min	9 gal/min / 7.51 gal/min	Active	Evaporative Sprayer for basin water
TA-60-EVAP-6 RPNT41	Fugitives		SMI 420B	9360	01-JAN-14	01-JAN-14	24 gal/min / 20 gal/min	24 gal/min / 20 gal/min	Active	Evaporative Sprayer for basin water
TA-63-GEN-TRU EQPT176	Internal combustion engine	Cummins	DSGAD	F150838701	01-JAN-16	01-JAN-15	175 kW / 324 hp	324 hp / 175 kW	Active	Cummins CI RICE Generator

EQUIPMENT SPECIFICATIONS (Inactive/Retired/Removed):

Unit No.	Unit Type	Make	Model No.	Serial No.	Yr of Construction	Yr of Manufacture	Operating Rate Max/Site	Operating Capacity Max/Site	Subject Item Status	Subject Item Description
EQPT118 TA-55-PF4 CM Furnace	Foundry	CM Furnace	1712 FLIBL	050203	01-JAN-99	01-JAN-99	/	/ 1600 degrees C	Inactive	Beryllium Activity-Plutonium Facility Foundry Operations: Beryllium Furnace

EMISSIONS: Pollutant **Permitted** (Allowable**)** Emissions per piece of equipment or Subject Item as represented by applicant (sorted alphabetically by unit number).

Unit No.	NO_x (pph.)	[1]NO_x (tpy.)	CO (pph)	CO (tpy)	VOC (pph)	VOC (tpy)	SO_2 (pph)	SO_2 (tpy)	TSP (pph)	TSP (tpy)	PM_{10} (pph)	PM_{10} (tpy)	$PM_{2.5}$ (pph)	$PM_{2.5}$ (tpy)	H_2S (pph)	H_2S (tpy)
Boiler tpy combined emiss		80		80		50		50		50		50		1.9		
RLUOB Boilers		2.9		0.9		1		10.4		0.5		0.3		0.3		
RLUOB-BHW-1 (gas)	0.7	2.9	1.1	4.8		1.5	0.1	0.3	0.1	0.4	0.1	0.4	0.1	0.4		
RLUOB-BHW-1 (oil)	1.6		0.5		0.5		0.6		0.3		0.2		0.2			
RLUOB-BHW-2 (gas)	0.7	2.9	1.1	4.8		1.5	0.1	0.3	0.1	0.4	0.1	0.4	0.1	0.4		
RLUOB-BHW-2 (oil)	1.6		0.5		0.5		0.6		0.3		0.2		0.2			
RLUOB-BHW-3 (gas)	0.7	2.9	1.1	4.8		1.5	0.1	0.3	0.1	0.4	0.1	0.4	0.1	0.4		
RLUOB-BHW-3 (oil)	1.6		0.5		0.5		0.6		0.3		0.2		0.2			
RLUOB-BHW-4 (gas)	0.7	2.9	1.1	4.8		1.5	0.1	0.3	0.1	0.4	0.1	0.4	0.1	0.4		

Unit No.	NO_x (pph.)	[1]NO_x (tpy.)	CO (pph)	CO (tpy)	VOC (pph)	VOC (tpy)	SO_2 (pph)	SO_2 (tpy)	TSP (pph)	TSP (tpy)	PM_{10} (pph)	PM_{10} (tpy)	$PM_{2.5}$ (pph)	$PM_{2.5}$ (tpy)	H_2S (pph)	H_2S (tpy)
RLUOB-BHW-4 (oil)	1.6		0.5		0.5		0.6		0.3		0.2		0.2			
RLUOB-CHEM						3.75										
SSM for TA-3-22-CHP-1	11	0.4	304	9.4	35	1.1	0.2	0.005			3.3	0.1	3.3	0.1		
TA-16-1484-BS-1		80		80		50		50				50		50		
TA-16-1484-BS-2		80		80		50		50				50		50		
TA-3-22-1 (gas)	10.2	31.5	7	21.5	1	2.8	0.11	2.2	1.3	4.7	1.3	4.4	1.3	4.2		
TA-3-22-1 (oil)	11.3		6.5		0.3		9.6		4.3		3		2			
TA-3-22-2 (gas)	10.2		7		1		0.11		1.3		1.3		1.3			
TA-3-22-2 (oil)	11.3		6.5		0.3		9.6		4.3		3		2			
TA-3-22-3 (gas)	10.2	1.5	7	1	1	0.1	0.11	0.2	1.3		1.3	0.2	1.3	0.2		
TA-3-22-3 (oil)	11.3	1.9	6.5	1.1	0.3	0.05	9.6	1.7	4.3		3	0.7	2	0.7		
TA-3-22-4 (gas)	0.8		2.7		0.3		0.2				0.5		0.5			
TA-3-22-4 (oil)	6.2		2.7		0.1		3.3				1.6		1.6			

Unit No.	NO_x (pph.)	[1]NO_x (tpy.)	CO (pph)	CO (tpy)	VOC (pph)	VOC (tpy)	SO_2 (pph)	SO_2 (tpy)	TSP (pph)	TSP (tpy)	PM_{10} (pph)	PM_{10} (tpy)	$PM_{2.5}$ (pph)	$PM_{2.5}$ (tpy)	H_2S (pph)	H_2S (tpy)
TA-3-22-4&5 (gas tpy)		3		10.8		1		0.8				2.2		2.2		
TA-3-22-4&5 (oil tpy)		0.3		0.12		0.004		0.16				0.08		0.08		
TA-3-22-5 (gas)	0.8		2.7		0.3		0.2				0.5		0.5			
TA-3-22-5 (oil)	6.2		2.7		0.1		3.3				1.6		1.6			
TA-3-22-CHP-1	14.2	62.2	8.7	38.1	2.9	12.7	0.9	3.9			6.8	29.8	6.8	29.8		
TA-3-22-CT-1	23.8	59.4	29	72.3	0.6	1.5	1.7	4.2	1.9	4.8	1.9	4.8	1.9	4.8		
TA-33-G-1P	20.9	9.4	2.2	1	1.6	0.7	0.6	0.3	0.7	0.3	0.7	0.3	0.7	0.3		
TA-33-G-2	0.83	0.21	0.2	0.1	0.1	0.02	0.06	0.01	0.06	0.01	0.06	0.01				
TA-33-G-3	0.83	0.21	0.2	0.1	0.1	0.02	0.06	0.01	0.06	0.01	0.06	0.01				
TA-33-G-4	9.33	2.33	5.7	1.4	0.75	0.2	0.62	0.16								
TA-52-11									2.3	9.9	2.3	9.9	2.3	9.9		
TA-53-365-BHW-1		80		80		50		50		50		50		50		
TA-53-365-BHW-2		80		80		50		50		50		50		50		
TA-55-6-BHW-1		80		80		50		50		50		50		50		

Unit No.	NO_x (pph.)	[1]NO_x (tpy.)	CO (pph)	CO (tpy)	VOC (pph)	VOC (tpy)	SO_2 (pph)	SO_2 (tpy)	TSP (pph)	TSP (tpy)	PM_{10} (pph)	PM_{10} (tpy)	$PM_{2.5}$ (pph)	$PM_{2.5}$ (tpy)	H_2S (pph)	H_2S (tpy)
TA-55-6-BHW-2		80		80		50		50		50		50		50		
TA-60-BDM		20		10		20		20	33.8	20	33.8	20	33.8	20		

1 Nitrogen dioxide emissions include all oxides of nitrogen expressed as NO_2.
2 Title V annual fee assessments are based on the sum of allowable tons per year emission limits in Sections A106 and A107.
3 Compliance with emergency flare emission limits is demonstrated by limiting combustion to pilot and/or purge gas only.
"-" indicates the application represented emissions are not expected for this pollutant.
"<" indicates that the application represented the uncontrolled mass emission rates are less than 1.0 pph. or 1.0 tpy. for this emissions unit and this air pollutant. The Department determined that allowable mass emission limits were not required for this unit and this pollutant.
"*" indicates hourly emission limits are not appropriate for this operating situation.

Why this statement is true: TSP=PM10=PM2.5.
PM = PM (Condensable) + PM10 (filterable) = 9.91 E-03 + 7.71 E-05 = 9.99 E-03 for natural gas-fired reciprocating engines. (AP-42 (7/00), 3.2.3.3, Table 3.2-2) References from AP-42 indicate particulate matter from combustion of natural gas is primarily very small-sized particulate matter. Since, by definition, the total suspended particulate includes all particle-sizes less than an aerodynamic diameter of approximately 30 microns and PM10 includes those less than 10 microns in size. This is recognized by the NMED in the particle depletion parameters that are provided by the AQB Modeling Section which state that combustion particulates are 100% PM2.5 or smaller.

Pollutant Unpermitted (Potential) Emissions (Non-regulated, without permitted emission limits) (sorted alphabetically by unit number)

Unit No.	NO_x (pph)	NO_x (tpy)	CO (pph)	CO (tpy)	VOC (pph)	VOC (tpy)*	SO_2 (pph)	SO_2 (tpy)	TSP (pph)	TSP (tpy)	PM_{10} (pph)	PM_{10} (tpy)	$PM_{2.5}$ (pph)	$PM_{2.5}$ (tpy)	H_2S (pph)	H_2S (tpy)
TA-16-1484-BS-1	0.73	3.18	0.61	2.67	0.04	0.17	0.004	0.02	0.06	0.24	0.06	0.24	0.06	0.24		
TA-16-1484-BS-2	0.73	3.18	0.61	2.67	0.04	0.17	0.004	0.02	0.06	0.24	0.06	0.24	0.06	0.24		

Unit No.	NO_x (pph)	NO_x (tpy)	CO (pph)	CO (tpy)	VOC (pph)	VOC (tpy)*	SO_2 (pph)	SO_2 (tpy)	TSP (pph)	TSP (tpy)	PM_{10} (pph)	PM_{10} (tpy)	$PM_{2.5}$ (pph)	$PM_{2.5}$ (tpy)	H_2S (pph)	H_2S (tpy)
TA-3-22-4&5 (gas tpy)		6.6		23.8		2.2		1.6				4.8		4.8		
TA-53-365-BHW-1	0.81	3.56	0.68	2.99	0.04	0.2	0.005	0.02	0.06	0.27	0.06	0.27	0.06	0.27		
TA-53-365-BHW-2	0.81	3.56	0.68	2.99	0.04	0.2	0.005	0.02	0.06	0.27	0.06	0.27	0.06	0.27		
TA-55-6-BHW-1	1.42	6.21	1.19	5.22	0.08	0.34			0.11	0.47	0.11	0.47	0.11	0.47		
TA-55-6-BHW-2	1.42	6.21	1.19	5.22	0.08	0.34			0.11	0.47	0.11	0.47	0.11	0.47		
TA-60-EVAP-1										45						
TA-60-EVAP-2										45						
TA-60-EVAP-3										45						
TA-60-EVAP-4										45						
TA-60-EVAP-5										45						
TA-60-EVAP-6									29.4	128.8	1.9	8.4				

POTENTIAL HAPS EMISSIONS FROM TEMPO, Table has the most common HAPS – it is not inclusive of all HAPS that might be entered in TEMPO. All emissions are in tons/year

Unit No.	Total HAPS (tpy)	Acetal Dehyde (tpy)	Acrolein (tpy)	Benzene (tpy)	Cyclo Hexane (tpy)	Hexane (tpy)	Ethyl benzene (tpy)	Formalde hyde (tpy)	Hexane (tpy)	Methanol (tpy)	Toluene (tpy)	Xylene (tpy)
From App Sec 6												
Boilers all	1.2											
Turbine TA-3-22-CT-1	0.7											
Berylliu m activites	<<1.0											
TOTAL*	**24.0**	**8.0**		**8.0**		**8.0**		**8.0**			**8.0**	**8.0**

* Totals are for information only and may not match the totals in the table "TOTAL HAPS and NM TAPS"