Data Base Summary (Statement of Basis)

Title V Permit

Type of Permit Action: Title V Renewal. **This facility is subject to 20.2.70 NMAC because it has an Acid Rain Permit under Title IV even though it is not a major source of emissions.**

PSD or Not	Minor or Title V	Portable or Not
Minor (not PSD)	Major-Title V	Stationary

Facility: La Luz Energy Center
Company: Public Service Company of New Mexico (PNM)
Facility Type: ENRG-Power Plant
Permit No. (NSR) 5041-M1
Operating Permit No. (TV) P263R1, Acid Rain: P263A-R2
IDEA ID No. 32274 - PRT20220001
AIRS ID No. 350610039
SIC CODE: 4911: Electric services
Permit Writer: Joseph Kimbrell

Application Notarized Date: February 08, 2022
Receive Date: February 14, 2022
Timeliness of TV Application: **Yes**
Ruled Incomplete: NR
Ruled Complete: April 7, 2022
APP. sent to Field Office: NR
PSD APP. Sent to EPA: NR
Public Notice Date &Newspaper: 3/29/2023, Albuquerque Journal
Comments Due: 4/28/2023
Analysis Review Begins: NR
Analysis Review Ends: NR
Public Hearing: NR
Proposed Permit to EPA Acknowledged: TBD
Permit Due: October 7, 2023
Permit Issued: TBD
PSD Permit to EPA: NR
Facility Location: The facility is located at latitude 34, 36', 58.3" N and longitude -106, 48', 54.0" W. The facility Universal Transverse Mercator (UTM) coordinates are 333,600 Easting, 3,831,980 Northing, Zone 13, WGS 84, at an elevation of 5175 feet. The approximate location of this facility is 3.9 miles southwest of the intersection of State Route 314 and 309 in the city of Belen in Valencia County.
UTM ZONE: 13; **Datum:** NAD83
UTM Easting: 333600 meters **UTM Northing:** 3831980 meters
Elevation: 5175 feet
County: Valencia
In a Sensitive Area: No
Contact Name: Robin DeLapp **Email:** Robin.DeLapp@pnmresources.com
Phone: 505-241-2016 **Fax:** 505-241-2384
Contact Address: 2401 Aztec Road NE MS Z100
Albuquerque, NM 87107
Consultant Name: **Adam Erenstein, Trinity Consultants**

Phone: 505-266-6611 **Fax:** 505-266-7738
Email: aerenstein@trinityconsultants.com
Consultant Address: 9400 Holly Ave NE Bldg 3 Suite 300
Albuquerque, NM 87122

Title V AFFECTED PROGRAM* NOTIFICATION:

Affected Program	Distance	Units	Date Letter Sent
Municipality - Navajo Nation	49.7	km	3/29/2023
Municipality - Pueblo of Acoma	66.8	km	3/29/2023
Municipality - Pueblo of Isleta	26	km	3/29/2023
Municipality - Pueblo of Laguna	25.5	km	3/29/2023
Municipality - Pueblo of Sandia	68.3	km	3/29/2023

*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.

PART II - FACILITY SPECIFICATIONS

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

Pollutant	**Emissions** (tons per year)	**Emission Type**	**Change in Emission since Permit P263**
Nitrogen Dioxide	63.8	Allowable	No Change
Carbon Monoxide	76.7	Allowable	
Sulfur Dioxide	7.1	Allowable	
Volatile Organic Compounds (VOC)*	19.6	Allowable	
Particulate Matter (total suspended)	45.0	Allowable	
Particulate Matter (10 microns or less)	45.0	Allowable	
Particulate Matter (2.5 microns or less)	45.0	Allowable	
Carbon Dioxide (equivalent)	405,715	Allowable	

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 Emission since Permit P263**
Ammonia (NM TAP)	52.5	Allowable	No Change
Formaldehyde	2.5	Potential	
Total HAP	7.1	Potential	

* 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:

Unit #	SI Description	Primary	Secondary	Control Equipment Mfg & model (or equivalent)
0001 (EQPT1)	Combustion Turbine	Catalytic Reduction	Catalytic Oxidation	
0001 (EQPT1)	Combustion Turbine	Catalytic Reduction		
0001 (EQPT1)	Combustion Turbine	Chemical Oxidation		
0001 (EQPT1)	Combustion Turbine	Fabric Filter		
0002 (EQPT2)	Combustion Turbine	Catalytic Reduction	Catalytic Oxidation	
0002 (EQPT2)	Combustion Turbine	Catalytic Reduction		
0002 (EQPT2)	Combustion Turbine	Chemical Oxidation		
0002 (EQPT2)	Combustion Turbine	Fabric Filter		

EQUIPMENT SPECIFICATIONS (Active/Alternative):

Unit No.	Unit Type	Manufacturer	Model No.	Serial No.	Yr of Construction	Yr of Manufacture	Operating Rate Max/Site	Operating Capacity Max/Site	Subject Item Status	Subject Item Description
0001	Turbine	General Electric/ LM6000 Sprint	LM6000 Sprint	191-770	2015	2013	/ 42 MW	42 MW /	Active	Combustion Turbine
0002	Turbine	General Electric/ LM6000 Sprint	LM6000 Sprint	TBD	TBD	TBD	/ 42 MW	42 MW /	Active	Combustion Turbine
SSM (1&2)	Turbine	NR	NR	NR	TBD	TBD	/	/	Active	Startup, Shutdown, & Maintenance
M (1&2)	Turbine	NR	NR	NR	TBD	TBD	/	/	Active	Malfunction

EQUIPMENT SPECIFICATIONS (Inactive/Retired/Removed): NONE

Unit No.	Unit Type	Manufacturer	Model No.	Serial No.	Yr of Construction	Yr of Manufacture	Operating Rate Max/Site	Operating Capacity Max/Site	Subject Item Status	Subject Item Description

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

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[2] (tpy)	PM_{10} (pph)	PM_{10} (tpy)	$PM_{2.5}$ (pph)	$PM_{2.5}$ (tpy)	CO2e (tpy)
0001	3.6	12.3	5.3	18.0	1.0	3.4	0.4	1.4	4.0	13.5	4.0	13.5	4.0	13.5	202658.5
0002	3.6	12.3	5.3	18.0	1.0	3.4	0.4	1.4	4.0	13.5	4.0	13.5	4.0	13.5	202658.5
[3]SSM 1-Startup	20.0	10.0	20.4	10.2	1.5	0.75	0.4	0.2	4.0	2.0	4.0	2.0	4.0	2.0	Note 3
SSM 1-Shutdown	9.1	4.6	10.3	5.15	1.2	0.60	0.4	0.2	4.0	2.0	4.0	2.0	4.0	2.0	
SSM 2-Startup	20.0	10.0	20.4	10.2	1.5	0.75	0.4	0.2	4.0	2.0	4.0	2.0	4.0	2.0	
SSM 2-Shutdown	9.1	4.6	10.3	5.15	1.2	0.60	0.4	0.2	4.0	2.0	4.0	2.0	4.0	2.0	
Malfunction 1	20.0	10.0	20.4	10.0	1.5	10.0	0.4	3.6	4.0	10.0	4.0	10.0	4.0	10.0	
Malfunction 2	20.0		20.4		1.5		0.4		4.0		4.0		4.0		
TOTAL*		63.8		76.7		19.6		7.1		45.0		45.0		45.0	405,715

1 Nitrogen dioxide emissions include all oxides of nitrogen expressed as NO_2

2 For Title V facilities, the Title V annual fee assessments are based on the sum of allowable tons per year emission limits in Sections A106 and A107.

3 The SSM values listed above are total emissions during the startup or shutdown hours. The TPY were calculated based on 1,000 startup events, 1,000 shutdown events, and 6,760 normal operating hours. The listed SSM lbs/hr values are the total expected for each startup or shutdown hour, NOT the "additional" SSM emissions. Maximum total facility annual emissions are the sum of the normal and SSM operations. Maximum lb/hr emission rates are different for normal and SSM periods. The NOx and CO SSM emissions shall be monitored using CEMS during the entire startup or shutdown hours

4 All tons per year limits are based on rolling 12-month totals. Maximum total facility annual emissions are the sum of the normal and SSM and Malfunction operations.

5 TSP includes both filterable and condensable PM and therefore TSP = PM_{10} = $PM_{2.5}$.

Note: Malfunction tpy was combined to give applicant more flexibility.

Note 1: 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. By definition, since total suspended particulate includes all particle-sizes less than an aerodynamic diameter of approximately 30 microns and PM10 includes those less that 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.

Note 2: Table 2-P included in the application accounts for GHG emissions during SSM. The GHG and CO2e values in Table 2-P were calculated by conservatively assuming that both turbines would operate at 100% load 100% of the time (8,760 hours per year). The GHG/CO2e emissions are a direct function of fuel use and maximum fuel use occurs at 100% load. The GHG/CO2e emissions during SSM would be lower since the turbines would be at loads less than 100% and therefore using less fuel than at 100% load. Therefore, the GHG/CO2e emissions included in the application already account for GHG/CO2 emissions during SSM. GHG generation is the highest at complete combustion and during SSM, complete combustion is not possible.

Pollutant **Unpermitted** (Potential) Emissions (Non-regulated, without permitted emission limits) NONE

ALLOWABLE HAPS EMISSIONS FROM TEMPO, NONE

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 Number	**Total HAPS** (tpy)	Formaldehyde (tpy)	**Ammonia (tpy)NM-TAP**
TOTAL*	**7.1**	**2.5**	**52.5**

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