



NAVAJO NATION ENVIRONMENTAL PROTECTION  
AGENCY

Navajo Nation Operating Permit Program  
Rt. 112 North, Building F004-051  
P.O. Box 529, Fort Defiance, AZ 86504



**Detailed Information**

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**Permitting Authority: NNEPA**

**County:** Coconino                      **State:** Arizona                      **AFS Plant ID:** 04-005-N0565

**Facility:** El Paso Natural Gas Company - Leupp Compressor Station

**Document Type:** STATEMENT OF BASIS

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PART 71 FEDERAL OPERATING PERMIT  
STATEMENT OF BASIS

El Paso Natural Gas Company  
Leupp Compressor Station

Permit No. NN OP 04-004

**1. Facility Information**

**a. Permittee**

El Paso Natural Gas Company - Leupp Compressor Station  
E 1/2 NE 1/4 SE 1/4 Section 10, Township 22-N, Range 12-E  
8 Miles West of Leupp Trading Post, Arizona

**Mailing Address:**

3801 Atrisco Blvd., NW  
Albuquerque, New Mexico 87120

**Owner:**

El Paso Natural Gas Company (EPNG)  
2 North Nevada Avenue  
Colorado Springs, Colorado 80903

**b. Contact Information**

Facility Contact:                      Richard Duarte, Environmental Representative  
Phone: (505) 831-7763  
Facsimile: (505) 831-7739

Responsible Official:                Sam A. Armenta, Albuquerque Division Director  
Phone: (505) 831-7772  
Facsimile: (505) 831-7739

**c. Description of Operations, Products**

The facility is a natural gas compressor station which performs gas inlet separation and natural gas compression.

**d. History**

This source is an existing natural gas compressor station consisting of inlet separation and natural gas compression. This plant was initially constructed in the 1950s. The A and B Plants (engines A-01 through A-11 and B-01 through B-05) and the auxiliary power unit (engine AUX A-01) were installed in the 1950's. The C plant was installed with three turbines. Two (2) of the turbines at Plant C are electric-driven. The gas-driven turbine at Plant C (identified as C-03) was installed as a simple cycle turbine in 1966 and was converted to a regenerative cycle unit in 1981. Additional auxiliary power for the facility was installed in 1988 (turbine AUX A-02).

The initial Title V permit for this source was issued by U.S. EPA on May 12, 2000. The D Plant was installed in 2001, consisting of a gas turbine (unit D-01) and a gas-fired auxiliary power generator (AUX D-01). U.S. EPA has determined that the installation of the D plant was exempt from the PSD requirements because this project did not have significant emission increase as defined in 40 CFR 52.21. The Title V renewal permit application was submitted on November 11, 2004. The supplement information was submitted on November 7, 2006 and July 9, 2007.

**e. Existing Approvals**

The source has been operating under Part 71 Operating Permit NN-OP-99-05, issued on May 12, 2000 and the following approvals:

First Administrative Amendment, issued on January 14, 2005.

All conditions from previous approvals were incorporated into this Part 71 permit renewal, except for the following:

The existing natural gas-fired engine AUX A-01 for auxiliary power generation has not be in operation since 2001 and will be removed from this plant in 2008. Therefore, this unit has been removed from the emission unit list of this Part 71 renewal permit.

**f. Permitted Emission Units and Control Equipment**

Unit ID/ Stack ID	Unit Description	Maximum Capacity	Commenced Construction Date	Control Device
A-01 throughput A-09	Nine (9) natural gas-fired engines	7.5 MMBtu 860 hp (each)	1953	N/A
A-10 A-11	Two (2) natural gas-fired engines	16 MMBtu/hr 1,720 hp (each)	1954	N/A
B-01 through B- 05	Five (5) natural gas-fired engines	14.4 MMBtu/hr 2,000 hp (each)	1957	N/A
C-03	One (1) natural gas-fired regenerative turbine	52.9 MMBtu/hr 4,950 hp	1966	N/A
D-01	One (1) natural gas-fired simple cycle turbine	83.9 MMBtu/hr 10,364 hp	2001	N/A
AUX A-02	One (1) natural gas-fired simple cycle turbine, for auxiliary power generation	11.0 MMBtu/hr 1,000 hp	Constructed prior to 1971. Relocated to Leupp Station in 1988	N/A
AUX D-01	One (1) natural gas-fired engine, for auxiliary power generation	2.24 MMBtu/hr 276 hp	2001	N/A

**g. Unpermitted Emission Units and Control Equipment**

No unpermitted emission units were found to be operating at this source during this review process.

**h. New Emission Units and Control Equipment**

There are no new emission units or pollution control equipment included in this Part 71 operating permit renewal.

**i. Insignificant Activities**

This stationary source also includes the following insignificant activities as defined in 40 CFR 71.5(c)(11)(ii), which is defined as emission units with potential to emit of each criteria pollutant less than 2 tons per year and potential to emit a single HAP less than 0.5 per year or the de minimis level established under CAA 112(g), whichever is less:

- (a) Fugitive VOC emissions from connections, flanges, open-ended lines, valves, and other components.
- (b) Emergency shut down system and pressure relief valves.

- (c) Blowdown activities (during startup & shutdown)
- (d) Three (3) cooling towers, each with a maximum throughput rate of 9,000 gpm or less.

**j. Enforcement Issue**

There are no enforcement actions pending.

**k. Emission Calculations**

See Appendix A of this document for detailed calculations (pages 1 through 8).

**l. Potential to Emit after Issuance**

Potential to emit (PTE) means the maximum capacity to emit any air pollutant (Clean Air Act criteria pollutants or hazardous air pollutants) under its physical and operational design. Any physical or operational limitations on the maximum capacity of this plant to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed, may be treated as a part of its design if the limitation is enforceable by U.S. EPA or NNEPA. Actual emissions are typically lower than PTE.

Process/facility	Potential to Emit (tons/year)						
	PM	PM-10	SO <sub>2</sub>	NO <sub>x</sub>	VOC	CO	HAPs
Engines A-01 through A-09	13.6	17.1	0.21	1,861	130	690	22.9
Engines A-10 and A-11	6.46	8.13	0.10	936	18.4	133	10.9
Engines B-01 through B-05	14.5	18.3	0.22	1,811	60.0	383	24.4
Turbine C-03	0.53	1.84	0.95	134	13.1	39.0	0.24
Turbine D-01	0.84	2.91	1.50	38.6	13.5	47.0	0.38
Auxiliary Turbine AUX A-02	0.11	0.38	0.20	16.3	2.72	32.4	0.05
Auxiliary Engine AUX D-01*	Negligible	Negligible	Negligible	0.50	Negligible	2.53	Negligible
Insignificant Activities**	Less than 5.00	Less than 5.00	-	-	Less than 5.00	-	Negligible
PTE of the Entire Source	41.1	53.7	2.49	4,797	243	1,306	58.8
Title V Major Source Thresholds	NA	100	100	100	100	100	10 for a single HAP and 25 for total HAPs

Note: (\*) This is based on an operating limit of 100 hours per year.

(\*\*) This is an estimate on the PM/PM10 emissions from the cooling towers and the fugitive VOC emissions from equipment leaks.

- (a) The potential to emit of NO<sub>x</sub> and CO are equal to or greater than 100 tons per year. In addition, the potential to emit of HAPs from this source is greater than 10 tons per year for a single HAP and greater than 25 tons per year for total HAPs. Therefore, this source is considered a major source under 40 CFR 71 (Federal Operating Permit Program).
- (b) This source is located in an attainment area and is not in one of the 28 source categories defined in 40 CFR 52.21(b)(1)(iii). The potential to emit NO<sub>x</sub> and CO are greater than 250 tons per year. Therefore, this source is an existing major source under the Prevention of Significant Deterioration (PSD) program.

**m. Actual Emissions**

The following table shows the actual emissions from the source. This information reflects the 2003 emission inventory data submitted by the permittee.

Pollutant	Actual Emissions (tons/year)
PM	Not Reported
PM10	Not Reported
SO <sub>2</sub>	0
VOC	22
NO <sub>x</sub>	2,232
Formaldehyde	10

**2. Tribe Information**

**a. General**

The reservation of the Navajo Nation is one of the largest Indian reservations in the country, covering more than 26,000 square miles in three states: Arizona, Utah, and New Mexico. The Navajo Nation currently is home to more than 260,000 people. Industries on the reservation include oil and natural gas production, coal and uranium mining, electric generation and distribution, and tourism.

**b. Local air quality and attainment status**

All areas of the Navajo Nation are currently designated as attainment or unclassifiable for all pollutants for which a National Ambient Air Quality Standard (NAAQS) has been established.

**3. Prevention of Significant Deterioration (PSD) Applicability**

This source was constructed in 1953 and modified in 1954, 1957, 1966, 1988, and 2001. The initial construction of this source in 1950s and the modification occurred in 1966

1996 predated the PSD applicability date. Therefore, the construction of this source and the modification in 1996 were not subject to the PSD program. This existing source is not in one of the 28 source categories defined in 40 CFR 52.21(b)(1)(iii) and has potential to emit NOx and CO greater than 250 tons per year. Therefore, this source is an existing PSD major source.

The modifications that commenced in 1988 did not have significant emission increase as defined in 40 CFR 52.21. Therefore, the modification that occurred in 1988 was not subject to the requirements of PSD.

According to the letter from US EPA to the source on January 16, 2001, the modification occurred in 2001 (the construction of Plant D) is considered a PSD minor project and the requirements of PSD are not applicable. According to the letter from US EPA to the source on May 20, 2005, an operating limit of 100 hours per year for auxiliary engine AUX D-01 is necessary to ensure that the PTE of the modification in 2001 does not exceed 40 tons per year for NOx. Any relaxation of the PSD avoidance conditions would trigger PSD review pursuant to 40 CFR 52.21(r)(4)

#### 4. Federal Rule Applicability

- (a) New Source Performance Standard (NSPS) for Stationary Gas Turbines (40 CFR 60.330-60.335, Subpart GG):

There are three (3) turbines (C-03, D-01, and AUX A-02) at this source. Turbine C-03 was constructed before October 3, 1977, prior to the applicability date of NSPS, Subpart GG. Turbine C-03 was converted from simple cycle to regenerative cycle after NSPS, Subpart GG was promulgated. However, the conversion is not considered modifications under 40 CFR 60 because it does not result in an increase in emissions of a regulated pollutant for which a standard existed. Turbine AUX A-02 has a maximum heat input greater than 10 MMBtu/hr but was constructed before October 3, 1977. Therefore, turbines C-03 and AUX A-02 are not subject to the requirements of this NSPS.

Turbine D-01 was installed after October 3, 1977 and has a maximum heat input capacity greater than 10 MMBtu/hr. Therefore, Turbine D-01 is subject to the requirements of 40 CFR, Subpart GG and the general provisions of 40 CFR 60, Subpart A. Pursuant to 40 CFR, Subpart GG, the permittee shall comply with the NOx and SO<sub>2</sub> emission limits below for turbine D-01:

1. Pursuant to 40 CFR 60.332(a)(2), NOx emissions from turbine D-01 shall not exceed the following:

$$\text{STD} = 0.015 \times (14.4 / Y) + F$$

where:

- STD = allowable ISO corrected (if required as given in §60.335(b)(1)) NO<sub>x</sub> emission concentration (percent by volume at 15 percent oxygen and on a dry basis).
- Y = manufacturer's rated heat rate at manufacturer's rated load (kilojoules per watt hour) or, actual measured heat rate based on lower heating value of fuel as measured at actual peak load for the facility. The value of Y shall not exceed 14.4 kilojoules per watt hour.
- F = NO<sub>x</sub> emission allowance for fuel-bound nitrogen as defined in 40 CFR 60.332(a)(4) of this section.

The permittee has determined to claim the fuel-bound nitrogen in the above equation. Therefore, F value is equal to zero.

2. Pursuant to 40 CFR 60.333(b), the total sulfur contained in the fuel combusted shall not exceed 0.8 percent by weight (8,000 ppmw).

Since turbine D-01 does not use water or steam injection system for control, was constructed before July 8, 2004, there are no applicable continuous monitoring requirements for the NO<sub>x</sub> emissions from turbine D-01. Compliance with the NO<sub>x</sub> emission limit in this NSPS is demonstrated by conducting performing tests in accordance with the test methods and procedures specified in 40 CFR 60.335 and 40 CFR 60.8.

Pursuant to 40 CFR 60.332(k), Gas turbine D-01 is exempt from the NO<sub>x</sub> emission limit in this NSPS when being fired with an emergency fuel. According to 40 CFR 60.331(r), "emergency fuel" is defined as "a fuel fired by a gas turbine only during circumstances, such as natural gas supply curtailment or breakdown of delivery system, that make it impossible to fire natural gas in the gas turbine.

The permittee has elected not to monitor the total sulfur content of the NG combusted in turbine D-01 by using the NG which meets the definition in 40 CFR 60.331(u), pursuant to 40 CFR 60.334(h)(3). The permittee has provided an excerpt from its current tariff from the Federal Energy Regulatory Commission (FERC) demonstrating that the fuel delivered to this plant satisfied the "natural gas" definition in 40 CFR 60.331(u). The permittee has performed the initial compliance stack test for turbine D-01 in 2002. Pursuant to 40 CFR 60.334(f)(2), the permittee shall continuously monitor the appropriate parameters to determine whether the unit is operating in low-NO<sub>x</sub> mode. In addition, the permittee is required to perform NO<sub>x</sub> emission test for turbine D-01 once per permit term to demonstrate compliance with the NO<sub>x</sub> emission limit in this NSPS, pursuant to 40 CFR 71.6(a)(3)(i)(B).

- (b) National Emission Standards for Hazardous Air Pollutants (NESHAP) for Oil and Natural Gas Production (40 CFR 63.760-779, Subpart HH):

This source does not meet the definition of oil and natural gas production facility as specified in 40 CFR 63.760(a). Therefore, this source is not subject to the requirements of NESHAP, Subpart HH.

- (c) NESHAP for Natural Gas Transmission and Storage (40 CFR 63.1270-1287, Subpart HHH):

This source does not have glycol dehydration units, therefore, is not subject to the requirements in 40 CFR 63, Subpart HHH, pursuant to 40 CFR 63.1270(c).

- (d) NESHAP for Combustion Turbines (40 CFR 63.6080-63.6175, Subpart YYYY):

This source is an existing HAP major source. All three (3) turbines (C-03, D-01, and AUX A-02) at this source were constructed before January 14, 2003 and are considered existing turbines under this NESHAP, pursuant to 40 CFR 63.6090(a)(1). Pursuant to 40 CFR 63.6090(b)(4), existing stationary combustion turbines do not have to meet the requirements of 40 CFR 63, Subparts YYYY and A. No initial notification is necessary for any existing stationary combustion turbine. Therefore, there are no requirements under this NESHAP applicable to the turbines at this source.

- (e) NESHAP for Reciprocating Internal Combustion Engines (40 CFR 63.6580 - 63.6675, Subpart ZZZZ):

This existing source is a HAP major source and has seventeen (17) reciprocating internal combustion engines (A-01 through A-11, B-01 through B05). Therefore, engines A-01 through A-11 and B-01 through B05 are subject to the requirements of NESHAP, Subpart ZZZZ.

The existing engines (A-01 through A-11, B-01 through B05) at this source were constructed before December 19, 2002. Therefore, these engines are considered existing affected emission units under this NESHAP, pursuant to 40 CFR 63.6590(a)(1). All the engines at this source are two-stroke lean-burn (2SLB) engines. Therefore, the permittee is not required to comply with the emission limits and the operation limits under this NESHAP, pursuant to 40 CFR 63.6600(c). No initial notification for these units are required pursuant to 40 CFR 63.6590(b)(3).

- (f) Acid Rain Program (40 CFR 72 through 40 CFR 80)

This source does not have any affected units specified in 40 CFR 72.6(a). Therefore, the turbines at this source are not subject to requirements of Acid Rain Program (40 CFR 72 through 40 CFR 80).

(g) Continuous Assurance Monitoring (CAM) Program (40 CFR 64)

None of the emission units at this source use an add-on control device as defined in 40 CFR 64.1. Therefore, the requirements of 40 CFR 64 (CAM) are not applicable.

(h) Asbestos NESHAP (40 CFR 61, Subpart M):

The permittee is subject to the requirements of Asbestos NESHAP and the applicable requirements are specified in the permit document.

(i) Protection of Stratospheric Ozone (40 CFR 82):

The permittee is subject to the requirements of 40 CFR 82 and the applicable requirements are specified in the permit document.

**Summary of Applicable Federal Requirements**

<b>Federal Air Quality Requirement</b>	<b>Current or Future Requirement</b>
NSPS, Subpart GG	Current
Asbestos NESHAP (40 CFR 61, Subpart M)	Current
Protection of Stratospheric Ozone (40 CFR 82)	Current

**5. Endangered Species Act**

Pursuant to Section 7 of the Endangered Species Act (ESA), 16 U.S.C. § 1536, and its implementing regulations at 50 CFR Part 402, U.S. EPA is required to ensure that any action authorized, funded, or carried out by U.S. EPA is not likely to jeopardize the continued existence of any Federally-listed endangered species or threatened species or result in the destruction or adverse modification of such species' designated critical habitat. NNEPA is issuing this federal Part 71 permit pursuant to a delegation from U.S. EPA. However, this permit does not authorize the construction of new emission units, or emission increases from existing units, nor does it otherwise authorize any other physical modifications to the facility or its operations. Therefore, NNEPA and U.S. EPA have concluded that the issuance of this permit will have no effect on listed species or their critical habitat.

**6. Use of All Credible Evidence**

Determinations of deviations, continuous or intermittent compliance status, or violations of the permit are not limited to the testing or monitoring methods required by the underlying regulations or this permit; other credible evidence (including any evidence admissible under the Federal Rules of Evidence) must be considered by the source, NNEPA, and U.S. EPA in such determinations.

## 7. NNEPA Authority

Authority to administer the Part 71 Permit Program was delegated to the Navajo Nation EPA by U.S. EPA Region IX in part on October 13, 2004 and in whole on March 21, 2006.

### Public Participation

#### a. Public Notice

As describe in 40 C.F.R. § 71.11(a)(5) and Navajo Nation Operating Permit Regulations (“NNOPR”) Subpart IV § 403(A), all draft operating permits shall be publicly noticed and made available for public comment. The public notice of permit actions and public comment period is described in 40 C.F.R. § 71.11(d) and NNOPR Subpart IV.

There is a 30 day public comment period for actions pertaining to a draft permit. Public notice will be given for this draft permit by mailing a copy of the notice to the permit applicant, the Navajo Nation Environmental Protection Agency, and the affected state (Arizona). A copy of the notice will also be provided to all persons who submitted a written request to be included on the mailing list.

Charlene Nelson  
Navajo Nation Operating Permit Program  
P.O. Box 529  
Fort Defiance, AZ 86504

E-mail: [charlenenelson@navajo.org](mailto:charlenenelson@navajo.org)

Public notice will be published in a daily or weekly newspaper of general circulation in the area affected by this source.

#### b. Opportunity for Comment

Members of the public may review a copy of the draft permit prepared by NNEPA, this statement of basis for the draft permit, the application, and all supporting materials submitted by the source at:

Navajo Nation Air Quality Control Program  
Route 112 North, Bldg No. F004-51  
Fort Defiance, AZ 86504

Copies of the draft permit and this statement of basis can also be obtained free of charge from NNEPA’s website

[www.navajonationepa.org/airqty/permits](http://www.navajonationepa.org/airqty/permits)

or by contacting Charlene Nelson at the NNAQCP address listed above or by telephone at (928) 729-4247. All documents will be available for review at the NNAQCP office indicated above during regular business hours.

If you have comments on the draft permit, you must submit them during the 30-day public comment period. All comments received during the public comment period and all comments made at any public hearing will be considered in arriving at a final decision on the permit. The final permit is a public record that can be obtained by request. A statement of reason for changes made to the draft permits and responses to comments received will be sent to persons who commented on the draft permit.

If you believe that any condition of the draft permit is inappropriate, you must raise all reasonably ascertainable issues and submit all argument supporting your position by the end of the comment period. Any supporting documents must be included in full and may not be incorporated by reference, unless they are already part of the administrative record for this permit or consist of tribal, state or federal statutes or regulations, or other generally available referenced materials.

**c. Opportunity to Request a Hearing**

A person may submit a written request for a public hearing to Charlene Nelson, at the address listed in Section 7(a) above, by stating the nature of the issues to be raised at the public hearing. Based on the number of hearing requests received, NNEPA will hold a public hearing whenever it finds there is a significant degree of public interest in a draft operating permit. If a public hearing is held, NNEPA will provide public notice of the hearing and any person may submit oral or written statements and data concerning the draft permit.

**d. Mailing List**

If you would like to be added to our mailing list to be informed of future actions on this or other Clean Air Act permits issued on the Navajo Nation, please send your name and address to Charlene Nelson at the address listed above.