



**TECHNICAL REVIEW AND EVALUATION
OF APPLICATION FOR
AIR QUALITY PERMIT No. 78413**

I. INTRODUCTION

This Class I operating renewal permit is issued to El Paso Natural Gas Company, L.L.C. (EPNG), the Permittee, for the continued operation of its Alamo Lake Compressor Station, which is located near Wenden in La Paz County, Arizona. Permit #78413 renews and supersedes Permit #61155.

A. Company Information

Facility Name: El Paso Natural Gas Company, L.L.C.
Alamo Lake Compressor Station

Mailing Address: El Paso Natural Gas Company, L.L.C.
5151 E. Broadway, Suite 1680
Tucson, AZ 85711

Facility Location: N 34° 04' 12", W 113° 36' 37"
13 miles N of Wenden on Alamo Dam access road
Wenden, La Paz County, Arizona 85357

B. Attainment Classification

The facility is located in an area which is in attainment or unclassified for all criteria pollutants.

II. PROCESS DESCRIPTION

El Paso Natural Gas Company (EPNG) provides natural gas transportation services for natural gas suppliers and end users throughout the southwestern United States. EPNG owns and operates a large pipeline network for which the Alamo Lake Station provides natural gas compression. Compression is needed to maintain enough pressure in the pipeline to keep the natural gas flowing through the pipeline network, and is accomplished by one natural gas fired General Electric regenerative cycle turbine engine and one natural gas fired Solar turbine that drive the compressor units.

From a common pipeline system, natural gas flows into each of the two centrifugal compressors connected in either parallel or in series. The compressors are driven by two natural gas fueled turbines. The turbines operate depending on the amount of natural gas being transported to various customers along the pipeline system. The facility also has a Caterpillar auxiliary engine for emergency power generation.

III. COMPLIANCE HISTORY

During the five-year permit term that EPNG Alamo Lake Compressor Station operated under Permit No. 61155, the facility had six (6) performance tests, four (4) physical inspections, and eight (8) compliance certification reviews. This facility is in compliance with the applicable permit conditions and no air quality cases or violations were issued during this permit term.

IV. EMISSIONS

The facility has a potential-to-emit (PTE) more than the major source thresholds of nitrogen oxides (NO_x). The facility's PTE is provided in Table 1 below:

Table 1: Potential to Emit

Pollutant	Emissions (tons per year)
NO _x	151.84
PM ₁₀	4.66
PM _{2.5}	4.66
CO	27.70
SO ₂	2.40
VOC	2.76
HAPs	0.83

V. APPLICABLE REGULATIONS

Table 2 identifies applicable regulations and verification as to why that standard applies.

Table 2: Applicable Regulations

Unit & year	Control Device	Rule	Discussion
General Electric Natural Gas-Fired Turbine	None	A.A.C. R18-2-719.B A.A.C. R18-2-719.C.1 A.A.C. R18-2-719.E A.A.C. R18-2-719.J	These standards are applicable to existing stationary rotating machinery. The turbine was constructed prior to October 3, 1977, and is therefore not subject to New Source Performance Standard (NSPS) Subpart GG.
Solar Taurus 60 Natural Gas-Fired Turbine Engine	None	40 CFR 60 Subpart GG	The turbine was constructed after October 3, 1977, and is therefore subject to New Source Performance Standard (NSPS) Subpart GG.

Unit & year	Control Device	Rule	Discussion
Caterpillar Emergency Generator	None	A.A.C. R18-2-719.B A.A.C. R18-2-719.C.1 A.A.C. R18-2-719.E A.A.C. R18-2-719.J 40 CFR Subpart ZZZZ	These standards are applicable to existing stationary rotating machinery. This engine is not subject to New Source Performance Standards (NSPS) Subpart JJJJ because it was constructed prior to June 12, 2006. Spark ignition emergency engines constructed before June 12, 2006 and located at area source of HAP emissions are subject to NESHAP Subpart ZZZZ requirements.
Fugitive dust sources	Water Trucks Dust Suppressants	A.A.C. R18-2 Article 6 A.A.C. R18-2-702	These standards are applicable to all fugitive dust sources at the facility.
Abrasive Blasting	Wet blasting; Dust collecting equipment; Other approved methods	A.A.C. R-18-2-702 A.A.C. R-18-2-726	These standards are applicable to any abrasive blasting operation.
Spray Painting	Enclosures	A.A.C. R18-2-702 A.A.C. R-18-2-727	This standard is applicable to any spray painting operation.
Demolition/renovation operations	N/A	A.A.C. R18-2-1101.A.8	This standard is applicable to any asbestos related demolition or renovation operations.

VI. PREVIOUS PERMIT AND CONDITIONS

A. Previous Permit Conditions

Table 3 compares the sections in Permit #61155 with the conditions in this renewal permit:

Table 3: Previous Permit Conditions

Section No.	Determination		Comments
	Revised	Delete	
Att. "A"	X		General Provisions: Revised to represent the most recent template language

Section No.	Determination		Comments
	Revised	Delete	
Att. "B" Section I	X		Facility wide requirements: Revised to represent the most recent template language
Att. B Section IV	X		Fugitive Dust Requirements – Revised to represent most recent template language
Att. B Section V		X	Mobile Source Requirements – Deleted as ADEQ has no authority to regulate mobile sources. The fugitive dust emissions from mobile sources are now addressed in the Section "Fugitive Dust Requirements".
Att. "C"	X		Equipment List: Revised to use the skid numbers for Solar gas turbine rather than the serial numbers.

VII. MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS

A. Facility Wide

Along with the semiannual compliance certification, the Permittee is required to submit reports of all recordkeeping, monitoring and maintenance required by the permit.

B. Stationary Rotating Machinery Not Subject To New Source Performance Standards (NSPS)

1. The Permittee is required to keep records of all surveys, observations and any corrective action taken to lower the opacity of any emission point.
2. The Permittee is required to keep records of a current, valid purchase contract, tariff sheet or transportation contract.
3. The Permittee is required to keep records of the maintenance conducted on the stationary RICE and the hours of operation of the engine that is recorded through the non-resettable hour meter.
4. The Permittee is required to report any failure to perform the work practice requirements of Condition II.E.2.a per the required schedule. The Permittee is required to submit compliance certifications and all deviations pursuant to timelines specified in Attachment "A".

C. Stationary Rotating Machinery Subject To NSPS

The Permittee is required to maintain a current, valid purchase contract, tariff sheet, or transportation contract for the gaseous fuel, specifying that the maximum total sulfur content of the fuel is 20 grains/100 scf or less.

D. Fugitive Dust

1. The Permittee is required to keep record of the dates and types of dust control measures employed.

E. Periodic Activities

1. The Permittee is required to record the date, duration and pollution control measures of any abrasive blasting project.
2. The Permittee is required to record the date, duration, quantity of paint used, any applicable MSDS, and pollution control measures of any spray painting project.
3. The Permittee is required to maintain records of all asbestos related demolition or renovation projects. The required records include the “NESHAP Notification for Renovation and Demolition Activities” form and all supporting documents.

VIII. TESTING REQUIREMENTS

The Permittee is required to conduct annual performance test on Solar turbine for NO_x.

IX. LIST OF ABBREVIATIONS

A.A.C.....	Arizona Administrative Code
ADEQ.....	Arizona Department of Environmental Quality
CFR.....	Code of Federal Regulations
CO.....	Carbon monoxide
EPNG.....	El Paso Natural Gas
HAP.....	Hazardous Air Pollutant
MSDS.....	Material Safety Data Sheet
NESHAP.....	National Emissions Standards for Hazardous Air Pollutants
NSPS.....	New Source Performance Standards
NO _x	Nitrogen oxide
PM.....	particulate matter with an aerodynamic diameter smaller than 100 micrometers
PM ₁₀	particulate matter with an aerodynamic diameter less than or equal to 10 micrometers
PM _{2.5}	particulate matter with an aerodynamic diameter less than or equal to 2.5 micrometers
PTE.....	Potential-to-Emit
RICE.....	Reciprocating internal combustion engine
SO ₂	Sulfur dioxide
tpy.....	Tons per Year
VOCs.....	Volatile Organic Compounds