TECHNICAL REVIEW AND EVALUATION
OF APPLICATION FOR
AIR QUALITY PERMIT No. 102489

I. INTRODUCTION

This Class I Renewal permit is for the continued operation of El Paso Natural Gas Company, LLC's Flagstaff Compressor Station located ½ mile north of Old Highway 66 on El Paso Flagstaff Road, Flagstaff, AZ 86004. Permit No. 102489 renews and supersedes Permit No. 76612. A Class I permit is required because the uncontrolled emissions from this facility for nitrogen oxides (NO_X), carbon monoxide (CO), formaldehyde, and total hazardous air pollutants (HAPs) are greater than major source thresholds. Permit No. 76612 had an expiration date of August 24, 2024, and the application for this permit renewal was submitted on February 2, 2024. This submission met the permit condition requiring that a complete and timely application be submitted by the Permittee at least six (6) months, but no earlier than eighteen (18) months, prior to the expiration date of the current permit.

A. Company Information

Facility Name:	El Paso Natural Gas Company, LLC
Mailing Address:	5151 E. Broadway Blvd., Suite 1680, Tucson, AZ 85711
Facility Location:	½ mile north of Old Highway 66 on El Paso Flagstaff Road, Flagstaff, Coconino County, AZ 86004

B. Attainment Classification

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

II. PROCESS DESCRIPTION

A. Process Description

El Paso Natural Gas Company, LLC (EPNG) provides natural gas transportation services for natural gas suppliers and end users throughout the southwestern United States via a network of pipelines. The Flagstaff Compressor Station is one of several stations that EPNG owns and operates to help provide natural gas compression to their pipeline network. Compression is needed to maintain enough pressure in the pipeline to keep the natural gas flowing through the pipeline network. The compression process at the Facility is accomplished with the use of two identical, two-stroke lean-burn (2SLB), natural gas-fired Reciprocating Internal Combustion Engines (RICE) (Clark Model TCV-16, A-1 and A-2, both 5,500 horsepower) that drive the compressor units. The Flagstaff Compressor Station is unattended as the RICE are automated.

Compressors, driven by the natural gas fueled RICE, receive a flow of natural gas from a common pipeline system and raise the pressure of the incoming gas from an initial "suction" state to a more compressed "discharge" state. The natural gas fueled RICE operation is dependent on the amount of natural gas that is being transported to various customers along the pipeline system. Purchased electric power is the primary electric power used at the Facility. When purchased power is not available, a four-stroke, rich-burn (4SRB) natural gas-fired emergency generator (Cummins Model G12, Aux-1) provides power.

B. Process Flow Diagram

A process flow diagram can be found in Appendix A.

III. COMPLIANCE HISTORY

A. Physical Inspections and Compliance Certification Reviews

During this permit term, the facility has had six (6) physical inspections and nine (9) compliance certification reviews. No deficiencies were noted during the physical inspections or compliance certification report reviews.

B. Performance Tests Conducted and Results

During this permit term, the performance tests conducted and results are shown in Table 1.

Table 1: Performance Test Results

Emission Unit	Pollutant	Date of Test	Results of Performance Test
Natural Gas Engines A-1 and A-2	Visible Emissions	02/17/2022	Pass
	NO_X and CO Emission Rates	02/17/2022	N/A

IV. EMISSIONS

The potential to emit (PTE) was calculated based on EPA's Compilation of Air Pollution Emission Factors (AP-42 Section 3.2), performance test results, Protocol for Equipment Leak Emission Estimates (November, 1995), and October 2023 gas analysis by Kinder Morgan.

The facility has a PTE more than the major source thresholds of NO_X, CO, formaldehyde, and HAPs. The facility's PTE is provided in Table 2 below:

Table 2: Potential to Emit (tpy)

Pollutant	PTE from (latest permitting action)	Change in PTE	PTE	Permitting Exemption Threshold	Minor NSR Triggered?
NO_X	1169.26	0	1169.26	20	No
PM_{10}	16.43	0	16.43	7.5	No
$PM_{2.5}$	16.43	0	16.43	5	No
CO	238.92	0	238.92	50	No
SO_2	0.20	0	0.20	20	No
VOC	40.80	0	40.80	20	No
HAPs	27.14	0	27.14	N/A	N/A
Single Max HAP (Formaldehyde)	18.77	0	18.77	N/A	N/A
GHG (CO_2e)	40615.73	0	40615.73	N/A	N/A

V. MINOR NEW SOURCE REVIEW (NSR)

Minor new source review is required if the emissions of any physical change or change in the method of an operation of an emission unit or stationary source results in an increase in emissions of any regulated minor NSR pollutant by an amount equal to or greater than the permitting exemption threshold (PET). As shown in Table 2 above, the emission increases resulting from this permit renewal are all below the permitting exemption thresholds and thus, minor NSR is not triggered at this time.

VI. APPLICABLE REGULATIONS

Table 3 identifies applicable regulations and verification as to why that standard applies. The table also contains a discussion of any regulations the emission unit is exempt from.

Table 3: Applicable Regulations

Unit & year	Control Device	Rule	Discussion
Clark TCV-16 SI RICE – 1964	None	A.A.C. R18-2-719	This standard is for existing stationary rotating machinery and is applicable to these engines.
		NSPS 40 CFR Part 60 Subpart JJJJ	These engines are not subject to NSPS 40 CFR Part 60 Subpart JJJJ for Stationary Spark Ignition Internal Combustion Engines per 40 CFR 60.4230(a)(5) because they were constructed prior to June 12, 2006 and have not been modified or reconstructed since then.
		NESHAP 40 CFR Part 63 Subpart ZZZZ	These engines are not subject to NESHAP 40 CFR Part 63 Subpart ZZZZ for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines per 40 CFR 63.6590(b)(3)(i) because they are existing spark ignition 2SLB stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions.
Emergency Generator SI RICE – 1991	None	A.A.C. R18-2-719	This standard is for existing stationary rotating machinery and is applicable to this engine.
		NSPS 40 CFR Part 60 Subpart JJJJ	This engine is not subject to NSPS 40 CFR Part 60 Subpart JJJJ for Stationary Spark Ignition Internal Combustion Engines per 40 CFR 60.4230(a)(5) because it was constructed prior to June 12, 2006 and has not been modified or reconstructed since then.
		NESHAP 40 CFR Part 63 Subpart ZZZZ	This engine is subject to NESHAP 40 CFR Part 63 Subpart ZZZZ for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines because it is a 4SRB engine less than 500 HP located at a major source of HAP emissions.

Unit & year	Control Device	Rule	Discussion
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	These standards are applicable to any spray painting operation.
Demolition/renovation Operations	N/A	A.A.C. R18-2-1101.A.12	This standard is applicable to any asbestos related demolition or renovation operations.

VII. PREVIOUS PERMIT REVISIONS AND CONDITIONS

A. Previous Permit Revisions

No permit revision has been made to Permit No. 76612 during this permit term.

B. Changes to Current Renewal

Table *4* addresses the changes made to the sections and conditions from Permit No. 76612:

Table 4: Previous Permit Conditions

Section No.	Determination			Comments
	Added	Revised	Deleted	
Att. "A"		X		General Provisions: Revised to represent the most recent template language.
Att. "B" Section I		X		Facility Wide Requirements: Revised to represent the most recent template language.
Att. "B" Section II.B.1			X	Stationary Rotating Machinery Requirements: For engines designed to burn natural gas, this fuel requirement is not needed.
Att. "B" Section III.B.1			X	Emergency Generator Requirements: For engines designed to burn natural gas, this fuel requirement is not needed.

VIII. MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS

Table 5 contains an inclusive but not an exhaustive list of the monitoring, recordkeeping and reporting requirements prescribed by the air quality permit. The table below is intended to provide insight to the public for how the Permittee is required to demonstrate compliance with the emission limits in the permit. Records are required be kept for a minimum of 5 years as outlined in Section XII of Attachment "A" of the permit.

Table 5: Permit No. 102489

Emission Unit	Pollutant	Emission Limit	Monitoring Requirements	Recordkeeping Requirements	Reporting Requirements
Clark TCV-16 SI RICE	PM	$\leq 1.02Q^{0.769}$, where Q is the heat input in million Btu per hour.	Conduct compliance tests during normal rated capacity operation.	Keep the test results.	If there is an exceedance, take corrective action and log all such actions, and report exceedances.
	Opacity	40%	Conduct periodic survey of visible emissions.	Keep the records of the survey.	Report the survey results.
	NO_X	N/A	Conduct periodic performance tests.	Keep the test results.	Report the test results.
	CO	N/A	Conduct periodic performance tests.	Keep the test results.	Report the test results.
Emergency Generator SI RICE	PM	$\leq 1.02Q^{0.769}$, where Q is the heat input in million Btu per hour.	Conduct compliance tests during normal rated capacity operation.	Keep the test results.	If there is an exceedance, take corrective action and log all such actions, and report exceedances.
	Opacity	40%	Conduct periodic survey of visible emissions.	Keep the records of the survey.	Report the survey results.

Emission Unit	Pollutant	Emission Limit	Monitoring Requirements	Recordkeeping Requirements	Reporting Requirements
Fugitive Dust	PM	40% Opacity	N/A	N/A	N/A
Abrasive Blasting	PM	20% Opacity	If abrasive blasting is conducted, monitor visible emissions.	Record the date, duration and pollution control measures of any abrasive blasting project.	N/A
Spray Painting	VOC	20% Opacity Control 96% of the overspray.	If spray painting is conducted, monitor visible emissions.	Maintain records of the date, duration, quantity of paint used, any applicable MSDS, and pollution control measures of any spray painting project.	N/A
Demolition/ Renovation	Asbestos	N/A	N/A	Maintain records of all asbestos related demolition or renovation projects including the "NESHAP Notification for Renovation and Demolition Activities" form and all supporting documents.	N/A

IX. COMPLIANCE ASSURANCE MONITORING (CAM)

The CAM rule applies to pollutant-specific emission units (PSEU) at a major Title V source if the unit meets all of the following criteria:

A. The unit is subject to an emission limit or standard for the applicable regulated air pollutant;

B. The unit uses a control device to achieve compliance with the emission limit or standard; and

C. The unit has "potential pre-control device emissions" of the applicable regulated air pollutant equal to or greater than 100% of the amount (tons/year) required for a source to be classified as a major source. "Potential pre-control device emissions" means potential to emit (PTE, as defined in Title V) except emissions reductions achieved by the applicable control device are not taken into account.

The general purpose of monitoring required by the CAM rule is to assure compliance with emission standards by ensuring that control devices meet and maintain the assumed control efficiencies. Compliance is ensured through requiring monitoring of the operation and maintenance of the control equipment and, if applicable, operating conditions of the pollutant-specific emissions unit. For the PSEUs that have post control potential to emit equal to or greater than 100 percent of the amount, in tons per year, required for a source to be classified as a major source, for each parameter monitored, the owner shall collect four or more data values equally spaced over each hour. Such units are defined as “large” PSEUs. For all other PSEUs (“small” PSEUs), the monitoring shall include some data collection at least once per 24-hour period. In the specific case of EPNG Flagstaff Compressor Station, none of the PSEUs has a control device to achieve compliance with an emission limit or standard. Therefore, this facility is not subject to the CAM rule.

X. ENVIRONMENTAL JUSTICE ANALYSIS

The EPA (Environmental Protection Agency) defines Environmental Justice (EJ) to include the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and polices. The goal of completing an EJ assessment in permitting is to provide an opportunity for overburdened populations or communities to allow for meaningful participation in the permitting process. Overburdened is used to describe the minority, low-income, tribal and indigenous populations or communities that potentially experience disproportionate environmental harms and risks due to exposures or cumulative impacts or greater vulnerability to environmental hazards. This renewal permit does not result in any increases in emissions and will not result in any additional impacts.

XI. LEARNING SITE EVALUATION

In accordance with ADEQ’s Environmental Permits and Approvals near Learning Sites Policy, the Department is required to conduct an evaluation to determine if any nearby learning sites would be adversely impacted by the facility. Learning sites consist of all existing public schools, charter schools and private schools the K-12 level, and all planned sites for schools approved by the

Arizona School Facilities Board. The learning sites policy was established to ensure that the protection of children at learning sites is considered before a permit approval is issued by ADEQ.

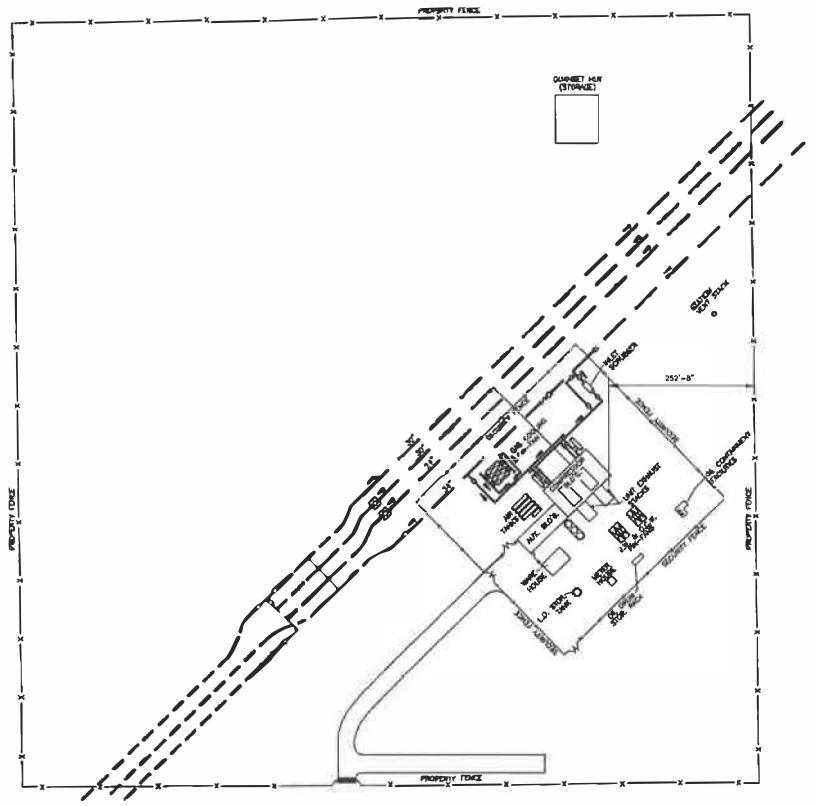
The renewal will not result in any increase in emissions as there are no changes to any equipment. Hence the facility is exempt from the learning sites evaluations.

XII. LIST OF ABBREVIATIONS

2SLB ..... Two-stroke Lean-burn
4SRB ..... Four-stroke Rich-burn
A.A.C. ..... Arizona Administrative Code
ADEQ ..... Arizona Department of Environmental Quality
CAM ..... Compliance Assurance Monitoring
CEMS ..... Continuous Emissions Monitoring System
CFR ..... Code of Federal Regulations
CO ..... Carbon Monoxide
CO_2 ..... Carbon Dioxide
CO_2e ..... CO_2 equivalent basis
EJ ..... Environmental Justice
EPA ..... Environmental Protection Agency
EPNG ..... El Paso Natural Gas Company, LLC
GHG ..... Greenhouse Gases
HAP ..... Hazardous Air Pollutant
hp ..... Horsepower
IC ..... Internal Combustion
NO_X ..... Nitrogen Oxides
NSR ..... New Source Review
PET ..... Permitting Exemption Threshold
PM ..... Particulate Matter
PM_{10} ..... Particulate Matter less than 10 µm nominal aerodynamic diameter
$PM_{2.5}$ ..... Particulate Matter less than 2.5 µm nominal aerodynamic diameter
PSEU ..... Pollutant-specific Emission Units
PTE ..... Potential to Emit
SI RICE ..... Spark Ignition Reciprocating Internal Combustion Engines
SO_2 ..... Sulfur Dioxide Significant Impact Levels
TPY ..... Tons per Year
VOC ..... Volatile Organic Compound
yr ..... Year

APPENDIX A

Figure 1
Site Diagram - Title V Air Permitting Site Plan



LOCATION: E 1/2 SW 1/4 NW 1/4 SW 1/4
E 1/2 NW 1/4 SW 1/4 SW 1/4
SE 1/4 NW 1/4 SW 1/4
NE 1/4 SW 1/4 SW 1/4
W 277 FT. OF SW 1/4 NE 1/4 SW 1/4
W 277 FT. OF NW 1/4 SE 1/4 SW 1/4
SEC. 4, T-21-N, R-8-E, B&MG&SR
COCONINO COUNTY, ARIZONA

ELEVATION: APPROX. 6,750'

E.P.N.G. IS PROVIDING THIS INFORMATION TO ASSIST A.D.E.Q. IN ITS REVIEW OF THE PERMIT APPLICATION. E.P.N.G. DOES NOT INTEND THIS INFORMATION TO BE INCLUDED IN THE PERMIT.

					ENG REC	DATE	
					DRAWN	FB	2/7/95
					CHECK		
					CHECK		
1	PTH	8/21/02	REMOVE PUMP HOUSE/WATER TANK		PROJ.		
PRT	SEP	DATE	TO	WO	DESIGN		
PRINT RECORD					W.O.		

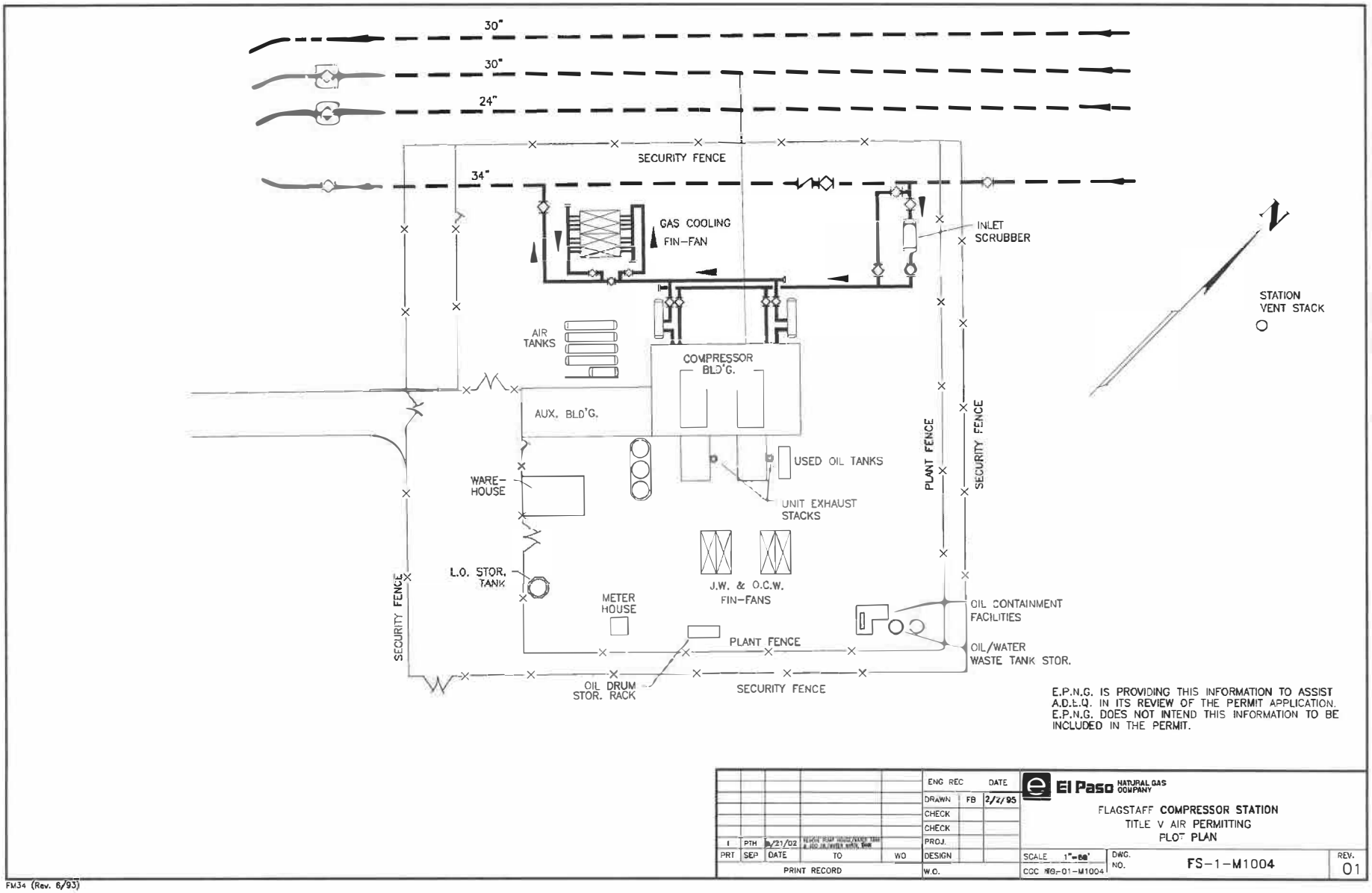
El Paso NATURAL GAS COMPANY

FLAGSTAFF **COMPRESSOR STATION**
TITLE V AIR PERMITTING
SITE PLAN

SCALE 1"=200' | DWG. NO. FS-1-M1003 | REV. 01
CGC NO. 5-01-M1003

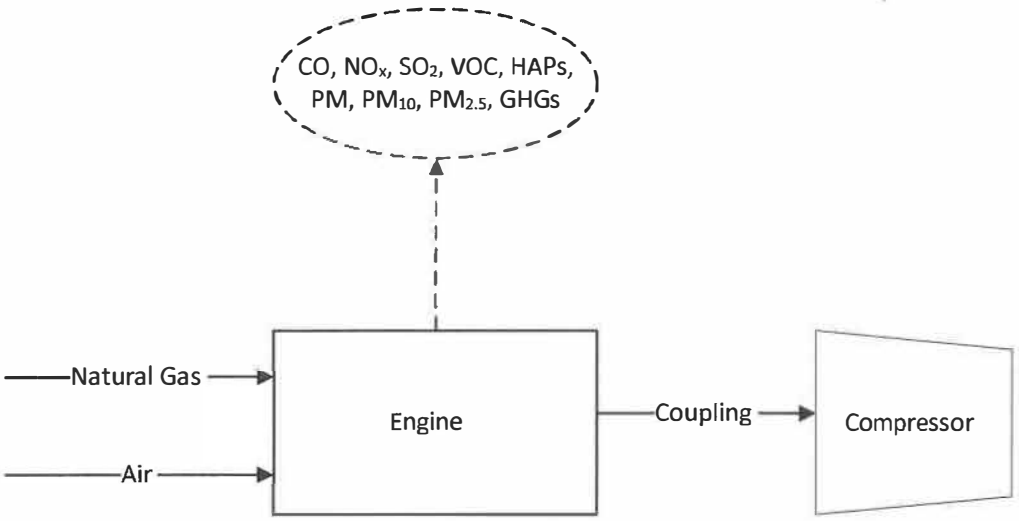
FM34 (Rev. 8/93)

Figure 2
Site Diagram - Title V Air Permitting Plot Plan



FM34 (Rev. 6/93)

Figure 3
Engines Process Flow Diagram



Nitrogen Oxides (NO_X)
Carbon Monoxide (CO)
Sulfur Dioxide (SO_2)
Particulate Matter (PM)
Particulate Matter with an aerodynamic diameter less than 10 microns (PM_{10})
Particulate Matter with an aerodynamic diameter less than 2.5 microns ($PM_{2.5}$)
Volatile Organic Compounds (VOC)
Hazardous Air Pollutants (HAP)
Greenhouse Gases (GHG)