# TECHNICAL REVIEW AND EVALUATION OF APPLICATION FOR AIR QUALITY PERMIT No. 104026

## I. INTRODUCTION

This Class I renewal is for the continued operation of El Paso Natural Gas Company, LLC's (EPNG) Wenden Compressor Station. The facility which is located on the I-10 mile marker 63.3 about 33 miles west of Tonopah, Arizona 86046. Permit No. 104026 renews and supersedes Permit No. 78291.

The facility's uncontrolled emissions are greater than the major source thresholds identified in Arizona Administrative Code (A.A.C.) R18-2-101.75 for nitrogen oxides ($NO_x$). Therefore, a Class I permit is required for this facility in accordance with A.A.C. R18-2-302.B.1.a.

Permit No. 78291 has an expiration date of December 17, 2024, and the application for this renewal was submitted on June 5, 2024. This submission met the permit condition requiring that a complete and timely application be submitted 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: Wenden Compressor Station

Mailing Address: 5151 E. Broadway, Suite 1680
Tucson, AZ 85711

Facility Location: I-10 mile marker 63.3 about 33 miles west of Tonopah, Arizona 86046

### B. Attainment Classification

The facility is located in La Paz County which in attainment or unclassified for all criteria air pollutants.

## II. PROCESS DESCRIPTION

EPNG provides natural gas transportation services for natural gas suppliers and end users. It owns and operates a large natural gas pipeline network including the Wenden Compressor Station. Compression is needed to maintain enough pressure in the pipeline to keep the natural gas flowing through the pipeline network, and is accomplished by two

(2) natural gas turbines and one (1) emergency generator that supplies power when purchased power is not available. Since the Wenden Compressor Station has been automated, the location is unattended.

## III. COMPLIANCE HISTORY

**A.** Report Reviews

The facility received four (4) full inspections and one (1) partial inspection during the permit term. The facility submitted ten (10) compliance certifications during the permit term. No permit deviation or excess emissions reports were submitted during the permit term.

**B.** Performance Tests

Under Permit No. 78291, five (5) performance tests were conducted during the permit term. All performance tests resulted in emissions below the applicable standard. The results of the performance tests conducted during the permit term are detailed in below.

**Table 1: Performance Test Results**

| Emission Unit | Pollutant | Date of Test | Results of Performance Test (ppm @15% $O_2$, ISO) | Emission Limitation (ppm @15% $O_2$, ISO) | Status |
|---|---|---|---|---|---|
| Unit A-01 | $NO_X$ | February 4, 2020 | 234 | N/A | N/A |
| Unit A-02 | $NO_X$ | February 4, 2020 | 14 | 150 | Passed |
| Unit A-02 | $NO_X$ | March 11, 2021 | 9 | 209 | Passed |
| Unit A-02 | $NO_X$ | February 3, 2022 | 9 | 150 | Passed |
| Unit A-02 | $NO_X$ | February 2, 2023 | 8 | 159 | Passed |
| Unit A-02 | $NO_X$ | January 24, 2024 | 8 | 159 | Passed |

## IV. EMISSIONS

The facility's potential to emit (PTE) was calculated using equipment and manufacturer specifications including AP-42, Compilation of Air Pollutant Emissions Factors from Stationary Sources, Section 3.1 for Stationary Gas Turbines, and Section 3.2 for Natural Gas-fired Reciprocating Engines.

It has the PTE more than the major source threshold of $NO_X$. The facility's PTE is provided in below:

**Table 2: Potential to Emit (tpy)**

| Pollutant | PTE |
|---|---|
| $NO_X$ | 317.61 |
| $PM_{10}$ | 4.28 |
| $PM_{2.5}$ | 4.28 |
| CO | 64.32 |
| $SO_2$ | 2.20 |
| VOCs | 2.69 |
| Total HAPs | 0.71 |

## V. MINOR NEW SOURCE REVIEW (NSR)

Minor new source review is required if the emissions of a new source have the potential to emit any regulated air pollutant at an amount greater than or equal to the permitting exemption thresholds (PET) shown in Table 2.

Minor NSR is not triggered since there are no changes in emissions for this renewal permit.

## VI. APPLICABLE REGULATIONS

Table 3 identifies applicable regulations as well as an explanation as to why each one applies. The table also contains a discussion of any regulations the units may be exempt from.

**Table 3: Applicable Regulations**

| Unit | Control Device | Rule | Discussion |
|---|---|---|---|
| General Electric Gas Turbine (A-1) | N/A | A.A.C. R18-2-719 | This gas turbine is constructed prior to October 3, 1977, the cutoff date for applicability of New Source Performance Standard (NSPS), Subpart GG. Therefore, NSPS Subpart GG is not applicable and state rules from A.A.C. R18-2 719 are applicable. |
| Solar Gas Turbine (A-2) | Dry Low $NO_x$ Combustor | NSPS 40 CFR 60 Subpart GG | The turbine is constructed after October 3, 1977, and is therefore subject to New Source Performance Standard (NSPS) Subpart GG.<br><br>NSPS Subpart KKKK is applicable to stationary combustion turbines that commenced construction, modification or reconstruction after February 18, 2005. The turbine was constructed prior to this date. Therefore, this turbine is not subject to NSPS Subpart KKKK. |

| Unit | Control Device | Rule | Discussion |
|---|---|---|---|
| Waukesha Emergency Generator (Aux-1) | N/A | NESHAP 40 CFR 63 Subpart ZZZZ<br><br>A.A.C. R18-2-719 | Requirements of NESHAP Subpart ZZZZ are applicable to the emergency generator.<br><br>The emergency generator, manufactured prior to the applicable date of NSPS Subpart JJJJ. Therefore, the emergency generator is not subject to NSPS Subpart JJJJ. State rules from A.A.C. R18-2 719 are applicable. |
| Fugitive Dust | Water Trucks, Dust Suppressants | A.A.C. R18-2 Article 6<br>A.A.C. R18-2-702 | These standards are applicable to all fugitive dust sources at the facility. |
| Abrasive Blasting | Wet Blasting; Dust Collectors; Other Approved Methods | A.A.C. R-18-2-702<br>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<br>A.A.C. R-18-2-727 | These standards are applicable to any spray painting operation. |
| Demolition/ Renovation | 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

Table 4 addresses the changes made to the sections and conditions from Permit No. 78291:

**Table 4: Previous Permit Conditions**

| Section No. | Determination | | | Comments |
|---|---|---|---|---|
| | Added | Revised | Deleted | |
| Att. "A" | | X | | General Provisions:<br>Revised to represent the most recent template language. |
| Att. "B" Section I | | X | | Facility-Wide Requirements:<br>Revised to represent the most recent template language. |
| Att. "B" Section IV | | X | | Emergency Generator Requirements:<br>Corrected conditions to reflect area source requirements instead of major source requirements. |
| Att. "C" | | X | | Equipment List:<br>Revised to reflect the most recent equipment operating at the facility and to include equipment information provided. |

## 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 facility 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. 104026**

| Emission Unit | Pollutant | Emission Limit | Monitoring Requirements | Recordkeeping Requirements | Reporting Requirements |
|---|---|---|---|---|---|
| General Electric Gas Turbine (A-1) | $NO_X$ | N/A | Conduct performance testing once per permit term. | Keep data and test reports for monitoring. | Report test results. Submit excess emissions and deviations reports if applicable. |
| Solar Gas Turbine (A-2) | $NO_X$ | NSPS GG Equation Based | Conduct annual performance testing. | Keep data and test reports for monitoring. | Report test results. Submit excess emissions and deviations reports if applicable. |
| Waukesha Emergency Generator (Aux-1) | $SO_2$ | 1.0 lb/MMBtu | N/A | Record the daily sulfur content of the fuel used in the engines. | Report to the Director any daily period which the sulfur content exceeds 0.8%. |

| Emission Unit | Pollutant | Emission Limit | Monitoring Requirements | Recordkeeping Requirements | Reporting Requirements |
|---|---|---|---|---|---|
| Fugitive Dust | PM | 40% Opacity | N/A | Record of the dates and types of dust control measures employed, and if applicable, the results of any Method 9 observations, and any corrective action taken to lower the opacity of any excess emissions. | N/A |
| Abrasive Blasting | PM | 20% Opacity | N/A | Record the date, duration and pollution control measures of any abrasive blasting project. | N/A |
| Spray Painting | VOC | 20% Opacity<br>Control 96% of the overspray | N/A | Maintain records of the date, duration, quantity of paint used, any applicable MSDS, and pollution control measures of any spray painting project. | N/A |

| Emission Unit | Pollutant | Emission Limit | Monitoring Requirements | Recordkeeping Requirements | Reporting Requirements |
|---|---|---|---|---|---|
| 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 limitation 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 CAM rule assures compliance with emission limitation or 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 facility 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.

The facility does not use a control device to meet an emission limitation or standard. Consequently, CAM requirements do not apply, and CAM plans are not necessary.

## X. LEARNING SITE EVALUTATION

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 in 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.

This renewal will not result in an increase in emissions above permitting exemption thresholds. Thus, it is exempt from a learning sites evaluation.

## XI. ENVIRONMENTAL JUSTICE ANALYSIS

The Environmental Protection Agency (EPA) 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 will not result in an increase in emissions and thus, it is exempt from a learning sites evaluation.

## XII. LIST OF ABBREVIATIONS

A.A.C. ..... Arizona Administrative Code
ADEQ ..... Arizona Department of Environmental Quality
AQD ..... Air Quality Division
A.R.S. ..... Arizona Revised Statutes
CAM ..... Compliance Assurance Monitoring
CFR ..... Code of Federal Regulations
CO ..... Carbon Monoxide
EPA ..... Environmental Protection Agency
EPNG ..... El Paso Natural Gas
FERC ..... Federal Energy Regulatory Commission
ft ..... Feet
HAPs ..... Hazardous Air Pollutants
HHV ..... Higher Heating Value
hp ..... Horsepower
hr ..... Hour
IC ..... Internal Combustion
kW ..... Kilowatt
MW ..... Megawatts
NAAQS ..... National Ambient Air Quality Standard
$NO_X$ ..... Nitrogen Oxides
$NO_2$ ..... Nitrogen Dioxide
NSPS ..... New Source Performance Standards
Pb ..... Lead

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
PTE ..... Potential to Emit
$SO_2$.....Sulfur Dioxide
TPY .....Tons per Year
VOCs..... Volatile Organic Compounds
yr .....Year