Class I Renewal Permit Application
Permit No.: 79880

North Baja Pipeline, LLC
Ehrenberg Compressor Station
La Paz County, Arizona

December 2024

Prepared for:

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Project Number: 227707206

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APPENDICES

1.0 Technical Support Documentation

1.1 Introduction

North Baja Pipeline LLC (NBP) owns and operates the Ehrenberg Compressor Station located in Ehrenberg, Arizona. The function of some of NBP compressor stations, including the Ehrenberg Compressor Station, is to maintain pressure in pipelines to transport natural gas from NBP's mainline to and from storage facilities located in Arizona or to local distribution companies or other end users. The Ehrenberg Compressor Station, located in La Paz County, Arizona, currently operates three (3) compressor turbines, one (1) emergency generator, and one (1) fuel gas heater.

The Title V regulations established emission thresholds of 100 tons per year (tpy) for all criteria pollutants and 25 tpy for total Hazardous Air Pollutants (HAPs) or 10 tpy for an individual HAP to classify a stationary source as major. The Ehrenberg Station is considered a Title V Part 70 major source due to CO, NOx, and CO2e emissions in excess of the applicability threshold.

The facility's current Class I Permit (Permit No. 79880) became effective on June 30, 2020. This permit is set to expire on June 29, 2025. NBP is submitting this Class I permit renewal application prior to the above expiration date pursuant to the Class I permit, which specifies that Class I renewal applications must be submitted at least 6 months, but not more than 18 months, prior to the date of permit expiration. Applicable Class I permit renewal forms have been included in this application. Changes in emission represented in this renewal application are related directly to the use of updated fuel consumption data and heat input data. The renewal application is comprised of the following information:

- Section 1 consists of technical support documentation;
- Section 2 consists of the ROP renewal application forms;
- Appendix A consists of the area maps and process flow diagrams;
- Appendix B contains the emission calculations;

1.2 Process Description

Ehrenberg Compressor Station is situated in La Paz County at 50650 Colorado River Road, Ehrenberg Arizona 85344. The Ehrenberg Station transports natural gas along the pipeline by receiving low-pressure inlet natural gas and compressing the stream to increase pressure and maintain the downstream flow. The Ehrenberg Station is covered by Standard Industrial Classification (SIC) 4922 and has the potential to operate seven (7) days per week, twenty-four (24) hours per day.

1.3 Emissions Source Description

This section provides a brief description of the various emission sources at the Ehrenberg Compressor Station. The Ehrenberg Station consists of three (3) compressor turbines, one (1) emergency generator, one (1) fuel gas heater, and one (1) 2,056-gallon pipeline fluids tank. The emission sources are further described in the following paragraphs.

1.3.1 Compressor Turbines

Natural gas compression at the Ehrenberg Compressor Station is currently accomplished through three (3) Solar turbines (GT-3, GT-4, and GT-5). GT-3 and GT-4 are both rated at 7,700 horsepower (hp) installed in 2014 and GT-5 is rated at 29,626 hp installed in 2020. All combustion equipment fires only pipeline quality natural gas.

The compressor drive equipment is the primary source of air emissions at Ehrenberg Compressor Station. Emissions of concern are mainly the combustion products NOx, CO, and VOC. NOx emissions result from thermal generation of nitric oxide (NO) in high-temperature combustion zones. CO and VOC emissions result from incomplete combustion of natural gas. NBP employs good combustion practices on well-maintained engines and turbines combined with the exclusive use of natural gas in order to minimize air emissions. Also, before entering the compressor suction, natural gas enters a separator which is used to remove small quantities of liquid condensate or sediment that may be present in the line. The heat of compression is removed using gas after-coolers.

1.3.2 Insignificant Activities

The Ehrenberg Compressor Station operates one emergency generator rated at 1,462 hp to provide electrical power in cases of commercial power supply failure. This emergency generator is categorically exempt pursuant of A.A.C. R18-2-101(24)(d)(ii) as well as an insignificant activity. The facility also operates and maintains one (1) pipeline fluids tank with a capacity of 2,056 gallons that is considered an insignificant activity per A.A.C. R18-2-101(68)(a)(iii). Lastly, the facility operates one (1) fuel gas heater that is a categorically exempt source under A.A.C. R18-2-101(24)(e).

Table 1.3.1 Summary of Air Emissions Equipment – Significant Activities

Equipment ID	Source	Manufacturer	Model/Type	Rated Capacity	Max. Heat Input (MMBtu/hr)
GT-3	Compressor Turbine No. 1	Solar	Taurus 60	7,700 hp	61.33
GT-4	Compressor Turbine No. 2	Solar	Taurus 60	7,700 hp	61.33
GT-5	Compressor Turbine No. 3	Solar	Titan 250	29,626 hp	230.41

Table 1.3.2 Summary of Air Emissions Equipment – Insignificant Activities/Trivial Activities

Equipment ID	Source	Manufacturer	Model/Type	Rated Capacity	Max. Heat Input (MMBtu/hr)	Applicable Regulation
GT-1	Emergency Generator	Caterpillar	G3516-130LE	1,462 hp	11.39	A.A.C. R18-2-101(24)(d)(ii)
--	Pipeline Fluids Tank	Hamilton Tanks	Vertical Above Ground	2,056 gal	--	A.A.C. R18-2-101(68)(a)(iii)
H1	Fuel Gas Heater	Aether	--	765 scf/hr	0.78	A.A.C. R18-2-101(24)(e)

1.4 Emission Calculation Methodology

The potential to emit for each regulated and significant source was calculated by using: 1) material balance; 2) the most recent emission factors from EPA's *AP-42, Compilation of Air Pollutant Emission Factors*; 3) vendor data; or 4) other data available to NBP including reference method test data. Emission calculations are included as Appendix B of this application.

Ehrenberg, Arizona is classified as attainment or unclassifiable for all National Ambient Air Quality Standards (NAAQS) for all pollutants for which NAAQS have been promulgated. The Compressor Station is located approximately 95 miles E of the Joshua Tree National Park, 190 miles W of Superstition Wilderness Area and 162 miles SW of Mazatal and Pine Mountain Wilderness Area.

1.5 Federal and State Regulatory Review

Ehrenberg Compressor Station is subject to certain federal and state air quality regulations. This section summarizes the air permitting requirements and key air quality regulations that apply to the operation of the facility.

1.5.1 Prevention of Significant Deterioration

The Prevention of Significant Deterioration (PSD) applicability is triggered by construction of a "major stationary source" or "major modification" to an existing major stationary source. PSD regulations in 40 CFR 52.21 define a major source as a source that emits or has the potential to emit such pollutants in amounts equal to or greater than 250 tpy [40 CFR 52.21 (b)(1)(i)]. The potential to emit is based on the maximum design capacity of a source, subject to federally enforceable permit limitations (e.g., limits on annual hours of operation) and considers pollution control efficiency.

NBP is not requesting any modification with this application that would subject emission units at the Ehrenberg Compressor Station to PSD requirements. Therefore, PSD requirements are not applicable to the Ehrenberg Compressor Station.

1.5.2 Non-Attainment New Source Review

Non-attainment New Source Review (NNSR) is required for major stationary sources locating or expanding in non-attainment areas. The Ehrenberg Compressor Station is located in La Paz County which is currently designated as an attainment/unclassifiable area for all criteria pollutants, therefore, the Ehrenberg Compressor Station is exempt from any NNSR requirements.

1.5.3 New Source Performance Standards (NSPS)

New Source Performance Standards (NSPS) apply to new, modified, or reconstructed stationary sources meeting criteria established in 40 CFR Part 60. The following sections describe requirements that apply to

the proposed units that the Ehrenberg Station. The results of this review are summarized below by regulatory citation.

Standards of Performance for Small Industrial-Commercial-Industrial Steam Generating Unit (40 CFR 60 Subpart Dc)

This standard is not applicable to the Ehrenberg Station because there are no natural gas-fired boilers and heaters with a design heat capacity of 2.9 MW (10 MMBtu/hr) or greater. The fuel gas heater will be rated at 0.78 MMBtu/hr, therefore, less than 10 MMBtu/hr.

Standards of Performance for Storage Vessels for Petroleum Liquids (40 CFR 60 Subpart K)

This standard is not applicable to the Ehrenberg Station because there are no petroleum storage vessels with the capacity greater than 40,000 gallons.

Standards of Performance for Storage Vessels for Petroleum Liquids (40 CFR 60 Subpart Ka)

This standard is not applicable to the Ehrenberg Station because there are no petroleum storage vessels with the capacity greater than 40,000 gallons at the facility.

Standards of Performance for Volatile Organic Liquid Storage Vessels (40 CFR 60 Subpart Kb)

This standard is not applicable to the Ehrenberg Station because there are no volatile organic liquid storage vessels with the capacity greater than 75 cubic meters at the facility.

Standards of Performance for Stationary Gas Turbines (40 CFR 60 Subpart GG)

This standard is not applicable to the Ehrenberg Station because GT-3, GT-4, and GT-5 fall under 40 CFR 60 Subpart KKKK which states that combustion turbines regulated under Subpart KKKK are exempt from any requirements under 40 CFR 60 Subpart GG.

Standards of Performance for Equipment Leaks of VOC from Onshore Natural Gas Processing Plants (40 CFR 60 Subpart KKK)

This standard is not applicable to the Ehrenberg Station because the facility is not a natural gas processing plant as defined in the regulation.

Standards of Performance for Onshore Natural Gas Processing: SO_2 Emissions (40 CFR 60 Subpart LLL)

This standard is not applicable to the Ehrenberg Station because the facility does not have any equipment involved in natural gas sweetening or sulfur recovery.

Standards of Performance for Compression Ignition Internal Combustion Engines (CI ICE) (40 CFR 60 Subpart IIII)

This standard is not applicable to the Ehrenberg Station because the natural gas-fired emergency generator engine at the facility because it does not meet the definition of a stationary diesel fired CI ICE.

Standards of Performance for Stationary Spark Ignition Internal Combustion Engines (SI ICE) (40 CFR 60 Subpart JJJJ)

This standard is not applicable to the Ehrenberg Station because all spark ignited internal combustion engines at the facility were installed prior to the specified applicability dates outlined in the rule.

Standards of Performance for Stationary Combustion Turbines (40 CFR 60 Subpart KKKK)

The standards of performance for this subpart applies to combustion turbines with peak load heat input greater than 10 MMBtu/hour constructed after February 18, 2005. This is applicable to the three (3) Solar turbines because they are rated higher than 10 MMBtu/hr and were installed after the applicability data. Procedures are in place to ensure the facility complies with these standards.

Standards of Performance for Crude Oil and Natural Gas Production, Transmission, and Distribution Commenced After August 23, 2011, and on or Before September 18, 2015 (40 CFR 60 Subpart OOOO)

The standards of performance for this subpart applies to owners and operators of onshore crude oil and natural gas facilities which commence construction, modification, or reconstruction after August 23, 2011. None of the compressor turbines at the Ehrenberg Compressor station as the two older compressor turbines (GT-3 and GT-4) were installed prior to the applicability date of Subpart OOOO and the newest compressor turbine (GT-5) is subject to the applicability dates of Subpart OOOOa.

Standards of Performance for Crude Oil and Natural Gas Facilities for which Construction, Modification, or Reconstruction Commenced After September 18, 2015 and On or Before December 6, 2022 (40 CFR 60 Subpart OOOOa)

Fugitive emissions from the newest compressor turbines (GT-5) will be subject to the requirements of Subpart OOOOa per 40 CFR §60.5365a(j). Procedures are in place to ensure the facility complies with these standards. The two older compressor turbines (GT-3 and GT-4) are not subject to this requirement as the equipment and processes were installed prior to the applicability data of Subpart OOOOa.

1.5.4 National Emission Standards for Hazardous Air Pollutants (NESHAP)

Federal NESHAP regulations promulgated pursuant to Section 112 of the CAA are found in 40 CFR Parts 61 and 63. NESHAP standards apply to hazardous air pollutants (HAPs) in select area and major sources of HAPs. NESHAP-allowable HAP emission limits are established on the basis of maximum achievable control technology (MACT) determination for the particular area or major source. The Ehrenberg Compressor Station is considered an area source of HAPs as the potential to emit is less than 10 tpy for any individual HAP and less than 25 tpy of total HAPs. Potentially applicable NESHAPs are discussed below.

40 CFR 61 Subpart M - National Emission Standard for Asbestos

The Ehrenberg Station may at times engage in demolition and/or renovation activities involving asbestos-containing materials (ACM). Therefore, the facility could potentially be subject to this subpart. Procedures are in place to ensure that the facility complies with these standards.

40 CFR 63 Subpart A – General Provisions

This regulation has general provisions that are referenced by other more specific NESHAP regulations. The Ehrenberg Station has applicability to this regulation and there are procedures in place to ensure compliance with these standards.

40 CFR 63 Subpart HH - NESHAP from Oil and Natural Gas Production Facilities

This regulation is not applicable to the Ehrenberg Station because the facility is a transmission and storage facility and is not an oil and gas production facility as defined in this regulation.

40 CFR 63 Subpart YYYY – NESHAP for Stationary Combustion Turbines

This regulation is not applicable to the Ehrenberg Station because the subpart is applicable to major sources of HAPs per 60 CFR §63.6085; therefore, the three (3) combustion turbines are not subject to this regulation as the facility is located in an area source of HAPs.

40 CFR 63 Subpart ZZZZ – NESHAP for Stationary Reciprocating Internal Combustion Engines (RICE)

Subpart ZZZZ regulates HAP emissions from existing, new, and reconstructed stationary compression ignition (CI) and spark ignition (SI), emergency and non-emergency, RICE located at major and area sources of HAP emissions. This standard is applicable to the Ehrenberg Station because the facility is considered an area source of HAP emission and operates an emergency stationary SI RICE. The unit, a Caterpillar G3516 engine rated at 1,462 hp, is an existing source and is subject to maintenance requirements listed in 40 CFR 63 Table 2(d)(5) and operating limitations as set forth in 40 CFR 63.6640(f). NBP will continue to comply with all applicable requirements.

40 CFR 63 Subpart DDDDD – NESHAP for Industrial, Commercial, and Institutional Boilers and Process Heaters

This regulation is not applicable to the Ehrenberg Station because the subpart is applicable to major source of HAPs per 60 CFR §63.7480; therefore, the facility is not subject to this regulation.

Subpart JJJJJJ - National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial and Institutional Boilers Area Sources

The Industrial/Commercial/Institutional Boilers and Process Heaters for area sources was promulgated on March 21, 2011, and regulates HAP emissions from industrial, commercial, or institutional boilers located at area sources of HAP emissions. The Ehrenberg Station is an area source of HAP however, per 40 CFR

§63.11195(e), natural gas-fired sources are exempt from requirements under this subpart. Therefore, this standard is not applicable.

1.5.5 Compliance Assurance Monitoring (CAM)

Enhanced monitoring requirements have been adopted into 40 CFR 64, referred to as Compliance Assurance Monitoring (CAM). CAM is applicable to sources that have a potential to emit in excess of major source thresholds, not considering "tailpipe" emission controls, and use an "active" control device to achieve compliance with the emission limit. Combustion controls may be considered in evaluating the potential to emit.

An emission unit is subject to CAM if all of the following criteria are satisfied:

- the unit is located at a major source that is required to obtain a Part 70 or Part 71 permit;
- the unit is subject to an emission limitation or standard for a regulated air pollutant;
- the unit uses an active control device to achieve compliance with any such emission limit or standard, and
- the unit has potential pre-controlled emissions of the applicable air pollutant above the major source threshold.

The potential emissions at the Ehrenberg Compressor Station do not exceed the major source threshold, therefore, CAM requirements do not apply.

1.5.6 Acid Rain Regulations

To reduce acid rain in the United States and Canada, Title IV of the CAA of 1990 established the Acid Rain Program to substantially reduce sulfur dioxide (SO_2) and NO_X emissions from electric utility plants. Affected units are specifically listed in Tables 1 and 2 of 40 CFR §73.10 under Phase I and II of the program. Upon Phase III implementation, the Acid Rain Program generally applies to fossil fuel-fired combustion sources that drive generators for the purposes of generating electricity for sale. The Ehrenberg Compressor Station is not a listed source in Tables 1 or 2 of 40 CFR §73.10, nor do any fossil fuel-fired combustion sources that drive generators for the purpose of generating electricity for sale exist at the facility. Accordingly, each of the following subparts of the Acid Rain Program are categorially not applicable to the facility:

- 40 CFR §72, Permit Regulations;
- 40 CFR §73, Allowance System;
- 40 CFR §74, Sulfur Dioxide Opt-Ins;
- 40 CFR §75, Continuous Emission Monitoring;
- 40 CFR §76, Acid Rain Nitrogen Oxides Emissions; and
- 40 CFR §77, Excess Emissions.

1.5.7 Chemical Accident Prevention Provisions and Risk Management Plan

The Ehrenberg Station is not subject to the Chemical Accident Prevention Provisions of 40 CFR Subpart 68. Applicability to this regulation is based on the type and quantity of certain regulated substances stored at a facility, and the Ehrenberg Station does not exceed the applicability thresholds (40 CFR 68.10). The facility is not considered a stationary source under 40 CFR 68.3 (Chemical Accident Prevention) because it is regulated under 49 CFR 192, DOT.

1.5.8 Stratospheric Ozone Protection Regulations

The Ehrenberg Station is not subject to the Title VI of the Clean Air Act, entitled *Protection of Stratospheric Ozone,* which are contained in 40 CFR §82. Subparts A through E and Subpart G of 40 CFR §82 are not applicable to the Ehrenberg Compressor Station. 40 CFR §82, Subpart F, *Recycling and Emissions Reduction,* potentially applies if the facility maintains, repairs, services, or disposes of appliances that utilize Class I or Class II ozone depleting substances. Subpart F generally requires persons completing the repairs, services, or disposal to be properly certified. All repairs, services, and disposals of ozone depleting substances from the air conditioners at the facility will be completed by an appropriately certified technician, therefore, meeting the requirements of 40 CFR §82, Subpart F.

1.6 Arizona State Air Regulations

In addition to federal air regulations, Arizona ADEQ establishes regulations applicable at the emission unit level and facility level. The rules also contain requirements related to the need for construction and/or operating permits. The following paragraphs discuss the general compliance with the Arizona state air pollution control rules.

General Requirements, A.A.C. R18-2-306.A

A.A.C R18-2-306 demonstrates the facility wide permit requirements and contents for a permit in the state of Arizona. The Ehrenberg Station will operate in accordance with vendor supplied operations and maintenance instructions. If vendor-supplied operations and maintenance instructions are not available, the available, the station will prepare and operate under an Operation and Maintenance Plan which will provide adequate information to properly operate and maintain the equipment in good working order. The Ehrenberg Station will continue to comply with all general requirements.

Fuel Limitation A.A.C. R18-2-306. A.2

A.A.C. R18-2-306.A.2 summarizes the applicable requirements for emissions limitations. The Ehrenberg Station may not fire any other fuel other than pipeline quality natural gas. Additionally, the station may not burn more than 1,500,000 MMBtu/year of natural gas in all the gas turbines combined. These limits were previously taken such that the station would qualify for a Class II permit. The facility latest permit No. 79880 applies for a Class I permit due to a project expansion. Therefore, these conditions are no longer required and NBP is not proposing that the three (3) compressor turbines be subject to this limit.

Carbon Monoxide

The Ehrenberg Station may not emit more than 0.12 pounds of carbon monoxide (CO) per MMBtu of fuel combusted from the gas turbine engines. Pursuant of A.A.C. R-18-2-306.A.3.c the station will conduct performance test on the stacks of the gas turbines to determine compliance with CO emissions rates once per permit term. Performance testing will be conducted, and data reduced in accordance with EPA Reference Method 10, 40 CFR 60, Appendix A. Similar to the fuel limit above, the CO limit was previously established in order for the Ehrenberg Station to qualify for a Class II permit. This limit and performance testing will continue to be applicable to the two older turbines (GT-3 and GT-4) but will not be applicable to the newer turbine (GT-5).

Nitrogen Oxides (NOx)

The Ehrenberg Station may not emit more than 0.106 pounds of nitrogen oxides (NO_X) per MMBtu of fuel combusted in the gas turbine engines. Pursuant of A.A.C. R-18-2-306.A.3.c the station will conduct bi-annual performance tests on the stacks of the turbines to determine compliance with NO_X emissions rates. Performance testing will be conducted, and data reduced in accordance and data reduced in accordance with EPA Reference Method 10, 40 CFR 60, Appendix A. Similar to the fuel limit above, the NO_X limit was previously established in order for the station to qualify for a Class II permit. This limit will and performance testing will continue to be applicable to the two older turbines (GT-3 and GT-4) but will not be applicable to the newer turbine (GT-5).

Particulate Matter and Opacity A.A.C. R18-2-719

A.A.C. R-18-2-719 sets emission limits for particulate matter as well as opacity requirements. The emergency generator is subject to this requirement. The emissions limit for particulate matter for this unit is determined by the equation $E=1.02Q^{0.769}$ where E is the maximum allowable particulate emissions rate in pounds-mass per hour and Q is the heat input in million Btu per hour. In addition to the particulate matter emissions standards, opacity standards are also set forth. The Ehrenberg Station may not cause, allow, or permit to be emitted into the atmosphere from any stationary rotating machinery, smoke for any period greater than 10 consecutive seconds which exceeds 40% opacity. Visible emissions when starting cold equipment are to be exempt from this requirement for the first 10 minutes. The Ehrenberg Compressor Station will keep records of fuel supplier certifications, documenting the lower heating value of fuel to ensure compliance.

1.7 Minor NSR Pollutant Program

The previous permit No. 79880 complied the Minor NSR Program with the addition of three new pieces of equipment, which included GT-5, the fuel gas heater, and the pipeline fluids tank. NBP elected to demonstrate compliance with the NSR Program by evaluating RACT, rather than ambient air impacts analysis. No new installations or modifications are proposed with this application, therefore, no new analysis for the Minor NSR Pollutant Program is necessary.

1.8 Permitting Summary and Compliance History

There have been no administrative or judicial actions taken against NBP within the past five years pertaining to the operation of the Ehrenberg Compressor Station. Additionally, there are currently no outstanding violations of state or federal environmental laws or regulations at the Ehrenberg Compressor Station. Since its issuance, NBP has complied with the terms and conditions of the Class I Permit.

1.9 Proposed Changes to Existing Class I Permit

NBP will continue to comply with the existing Class I Permit as part of the permit renewal application until the Arizona ADEQ issues a new permit. NBP is not requesting the following changes to the current permit No. 79880 language.

- NBP is requesting to remove Attachment B: Specific Condition I.A.1.c (shown below). This condition requires the facility have an onsite or on call person certified in EPA Reference Method 9. However, the current permit does not require Method 9 observations. NBP complies with the Fugitive Dust Requirements outlined in Attachment B: Specific Condition VI.B by implementing a facility speed limit less than 10 mph. In addition, facility has ¾ inch gravel throughout to mitigate fugitive dust.

Attachment B: Specific Condition I.A.1.c.
The Permittee shall have on site or on call a person certified in EPA Reference Method 9 unless all 6-minute Method 9 observations required by this permit are conducted as a 6-minute Alternative Method-082 (Digital Camera Operating Technique) and all instantaneous visual surveys required by this permit are conducted as an instantaneous Alt-082 camera survey. Any 6-minute Method 9 observation required by this permit can be conducted as a 6-minute Alternative Method-082 and any instantaneous visual survey required by this permit can be conducted as an instantaneous Alt-082 camera survey.

1.10 Summary

This document contains all the necessary elements for NBP to meet the requirements for a complete Class I renewal application in accordance with 40 CFR Part 70. NBP requests that this renewal application be reviewed, and a draft Class I Permit be issued at the earliest convenience.

2.0 Application Form

SECTION 2.1

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

Air Quality Division

1110 West Washington • Phoenix, AZ 85007 • Phone: (602) 771-2338

STANDARD CLASS I PERMIT APPLICATION FORM

(As required by A.R.S. § 49-426, and Chapter 2, Article 3, Arizona Administrative Code)

1. Permit to be issued to (Business license name of organization that is to receive permit):
   North Baja Pipeline LLC

2. Mailing Address: 201 W. North River Drive, Suite 505
   City: Spokane State: Washington ZIP: 99201

3. Name (or names) of Owners/ Principals: Jeff Pollock
   Phone: ((451) 548-9201 Fax: Please call Email: jeff_pollock@tcenergy.com

4. Name of Owner's Agent: Dan Maguire
   Phone: ((509) 553-2832 Fax: Please call Email: dan_maguire@tcenergy.com

5. Plant/Site Manager/ Contact Person and Title: Chris Egan
   Phone: (928) 923-7891 Fax: Please call Email: chris_egan@tcenergy.com

6. Plant Site Name: Ehrenberg Compressor Station

7. Plant Site Location Address: 50650 Colorado River Road
   City: Ehrenberg County: La Paz Zip Code: 85344
   Indian Reservation (if applicable, which one): NA
   Latitude/ Longitude, Elevation: 33 36 52N/114 30 39W, 273 feet
   Section/ Township/ Range:

8. General Nature of Business: Natural Gas Compressor Station

9. Type of Organization:
   ☐ Corporation ☐ Individual Owner ☐ Partnership ☐ Government Entity (Government Facility Code----------)
   ☒ Other LLC

8. Permit Application Basis: ☐ New Source ☐ Revision ☒ Renewal of Existing Permit
   (Check all that apply.)
   For renewal or modification, include existing permit number (and exp. date): 65999, October 11, 2022
   Date of Commencement of Construction or Modification:
   Primary Standard Industrial Classification Code: 4922

9. I certify that I have knowledge of the facts herein set forth, that the same are true, accurate and complete to the best of my knowledge and belief, and that all information not identified by me as confidential in nature shall be treated by ADEQ as public record. I also attest that I am in compliance with the applicable requirements of the Permit and will continue to comply with such requirements and any future requirements that become effective during the life of the Permit. I will present a certification of compliance to ADEQ no less than annually and more frequently if specified by ADEQ. I further state that I will assume responsibility for the construction, modification,

or operation of the source in accordance with Arizona Administrative Code, Title 18, Chapter 2 and any permit issued thereof.

Signature of Responsible Official: 

Official Title of Signer: North Baja Area Manager - US Pipeline Operations Pacific Mountain Region

Typed or Printed Name of Signer: Chris Egan

Date: 12/06/2024 Telephone Number: (928) 923-7891

SECTION 2.2 - EMISSION SOURCES

Estimated "Potential to Emit" per A.A.C. R18-2-101.

DATE _____

Review of applications and issuance of permits will be expedited by supplying all necessary information on this Table.

REGULATED AIR POLLUTANT DATA					EMISSION POINT DISCHARGE PARAMETERS									
EMISSION POINT [1]		CHEMICAL COMPOSITION OF TOTAL STREAM	AIR POLLUTANT EMISSION RATE		UTM COORDINATES OF EMISSION POINT [5]			STACK SOURCES [6]					NONPOINT	
NUMBER	NAME	REGULATED AIR POLLUTANT NAME [2]	#/ HR. [3]	TONS/ YEAR [4]	ZONE	EAST (Mtrs)	NORTH (Mtrs)	HEIGHT ABOVE GROUND (feet)	HEIGHT ABOVE STRUC. (feet)	EXIT DATA			SOURCES [7]	
										DIA (ft.)	VEL. (fps)	TEMP. (°F)	LENGTH (ft.)	WIDTH (ft.)
GT-3	Unit C	NOx	7.22	31.64	11	729194	3720098	40	5	6.9x3	37.3	956		
GT-3	Unit C	CO	8.18	35.82										
GT-3	Unit C	VOC	2.08	9.10										
GT-3	Unit C	PM10	0.45	1.97										
GT-3	Unit C	PM2.5	0.45	1.97										
GT-3	Unit C	SO2	0.23	1.01										
GT-3	Unit C	CO2 (short ton))	20,030	96,709										
GT-3	Unit C	CH4 (short ton))	9.44	45.57										
GT-3	Unit C	N2O (short ton))	11.25	54.31										

GROUND ELEVATION OF FACILITY ABOVE MEAN SEA LEVEL___273___feet

ADEQ STANDARD CONDITIONS ARE 293K AND 101.3 KILOPASCALS (A.A.C. R18-2-101)

****Submit emission calculations spreadsheet with your application****

General Instructions:

1. Identify each emission point with a unique number for this plant site, consistent with emission point identification used on plot plan, previous permits, and Emissions Inventory Questionnaire. Include fugitive emissions. Limit emission point number to eight (8) character spaces. For each emission point use as many lines as necessary to list regulated air pollutant data. Typical emission point names are: heater, vent, boiler, tank, reactor, separator, baghouse, fugitive, etc. Abbreviations are O.K.

2. Components to be listed include regulated air pollutants as defined in A.A.C. R18-2-101. Examples of typical component names are: Carbon Monoxide (CO), Nitrogen Oxides (NO_x), Sulfur Dioxide (SO_2), Volatile Organic Compounds (VOC), particulate matter (PM), particulate less than 10 microns (PM_{10}), etc. Abbreviations are O.K.

3. Pounds per hour (#/HR) is maximum potential emission rate expected by applicant.

4. Tons per year is annual maximum potential emission expected by applicant, which takes into account process operating schedule.

5. As a minimum applicant shall furnish a facility plot plan as described in the filing instructions. UTM coordinates are required only if the source is a major source or is required to perform refined modeling for the purposes of demonstrating compliance with ambient air quality guidelines.

6. Supply additional information as follows if appropriate:
   (a) Stack exit configuration other than a round vertical stack. Show length and width for a rectangular stack. Indicate if horizontal discharge with a note.
   (b) Stack's height above supporting or adjacent structures if structure is within 3 "stack height above the ground" of stack.

7. Dimensions of nonpoint sources as defined in A.A.C. R18-2-101.

SECTION 2.2 - EMISSION SOURCES

DATE _____

Estimated "Potential to Emit" per A.A.C. R18-2-101.

Review of applications and issuance of permits will be expedited by supplying all necessary information on this Table.

REGULATED AIR POLLUTANT DATA					EMISSION POINT DISCHARGE PARAMETERS									
EMISSION POINT [1]		CHEMICAL COMPOSITION OF TOTAL STREAM	AIR POLLUTANT EMISSION RATE		UTM COORDINATES OF EMISSION POINT [5]			STACK SOURCES [6]					NONPOINT	
NUMBER	NAME	REGULATED AIR POLLUTANT NAME [2]	#/ HR. [3]	TONS/ YEAR [4]	ZONE	EAST (Mtrs)	NORTH (Mtrs)	HEIGHT ABOVE GROUND (feet)	HEIGHT ABOVE STRUC. (feet)	EXIT DATA			SOURCES [7]	
										DIA (ft.)	VEL. (fps)	TEMP. (°F)	LENGTH (ft.)	WIDTH (ft.)
GT-4	Unit D	NOx	7.22	31.64	11	729229	3720099	40	5	6.9x3	37.3	956		
GT-4	Unit D	CO	8.18	35.82										
GT-4	Unit D	VOC	2.08	9.10										
GT-4	Unit D	PM10	0.45	1.97										
GT-4	Unit D	PM2.5	0.45	1.97										
GT-4	Unit D	SO2	0.23	1.01										
GT-4	Unit D	CO2 (short ton)	20,030	96,709										
GT-4	Unit D	CH4 (short ton))	9.44	45.57										
GT-4	Unit D	N2O (short ton))	11.25	54.31										

GROUND ELEVATION OF FACILITY ABOVE MEAN SEA LEVEL 273 feet

ADEQ STANDARD CONDITIONS ARE 293K AND 101.3 KILOPASCALS (A.A.C. R18-2-101)

****Submit emission calculations spreadsheet with your application****

General Instructions:

1. Identify each emission point with a unique number for this plant site, consistent with emission point identification used on plot plan, previous permits, and Emissions Inventory Questionnaire. Include fugitive emissions. Limit emission point number to eight (8) character spaces. For each emission point use as many lines as necessary to list regulated air pollutant data. Typical emission point names are: heater, vent, boiler, tank, reactor, separator, baghouse, fugitive, etc. Abbreviations are O.K.

2. Components to be listed include regulated air pollutants as defined in A.A.C. R18-2-101. Examples of typical component names are: Carbon Monoxide (CO), Nitrogen Oxides (NO_x), Sulfur Dioxide (SO_2), Volatile Organic Compounds (VOC), particulate matter (PM), particulate less than 10 microns (PM_{10}), etc. Abbreviations are O.K.

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4. Tons per year is annual maximum potential emission expected by applicant, which takes into account process operating schedule.

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6. Supply additional information as follows if appropriate:
   (a) Stack exit configuration other than a round vertical stack. Show length and width for a rectangular stack. Indicate if horizontal discharge with a note.
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7. Dimensions of nonpoint sources as defined in A.A.C. R18-2-101.

SECTION 2.2 - EMISSION SOURCES

PAGE_____OF _____
DATE _____

Estimated "Potential to Emit" per A.A.C. R18-2-101.
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REGULATED AIR POLLUTANT DATA					EMISSION POINT DISCHARGE PARAMETERS										
EMISSION POINT [1]		CHEMICAL COMPOSITION OF TOTAL STREAM	AIR POLLUTANT EMISSION RATE		UTM COORDINATES OF EMISSION POINT [5]			STACK SOURCES [6]					NONPOINT	
NUMBER	NAME	REGULATED AIR POLLUTANT NAME [2]	#/ HR. [3]	TONS/ YEAR [4]	ZONE	EAST (Mtrs)	NORTH (Mtrs)	HEIGHT ABOVE GROUND (feet)	HEIGHT ABOVE STRUC. (feet)	EXIT DATA			SOURCES [7]		
										DIA (ft.)	VEL. (fps)	TEMP. (°F)	LENGTH (ft.)	WIDTH (ft.)	
G-1	Aux. Generator	NOx	6.45	1.61	11					1	61	886			
G-1	Aux. Generator	CO	12.89	3.22											
G-1	Aux. Generator	VOC	3.22	0.81											
G-1	Aux. Generator	PM10	0.11	0.03											
G-1	Aux. Generator	PM2.5	0.11	0.03											
G-1	Aux. Generator	SO2	0.65	0.002											
G-1	Aux. Generator	CO2e (short ton))	1,334	333											

GROUND ELEVATION OF FACILITY ABOVE MEAN SEA LEVEL 273 feet
ADEQ STANDARD CONDITIONS ARE 293K AND 101.3 KILOPASCALS (A.A.C. R18-2-101)

****Submit emission calculations spreadsheet with your application****

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SECTION 2.2 - EMISSION SOURCES

Estimated "Potential to Emit" per A.A.C. R18-2-101.

DATE _____

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EMISSION POINT [1]		CHEMICAL COMPOSITION OF TOTAL STREAM	AIR POLLUTANT EMISSION RATE		UTM COORDINATES OF EMISSION POINT [5]			STACK SOURCES [6]					NONPOINT	
NUMBER	NAME	REGULATED AIR POLLUTANT NAME [2]	#/ HR. [3]	TONS/ YEAR [4]	ZONE	EAST (Mtrs)	NORTH (Mtrs)	HEIGHT ABOVE GROUND (feet)	HEIGHT ABOVE STRUC. (feet)	EXIT DATA			SOURCES [7]	
										DIA (ft.)	VEL. (fps)	TEMP. (°F)	LENGTH (ft.)	WIDTH (ft.)
GT-5	Unit E	NOx	11.68	52.45	11	729089	3720096	66.33	17.48	11.35	53.12	874		
GT-5	Unit E	CO	11.85	70.44										
GT-5	Unit E	VOC	1.36	7.47										
GT-5	Unit E	PM10	1.43	6.27										
GT-5	Unit E	PM2.5	1.43	6.27										
GT-5	Unit E	SO2	12.39	0.68										
GT-5	Unit E	CO2e (short ton))	25,415	111,317										

GROUND ELEVATION OF FACILITY ABOVE MEAN SEA LEVEL 273 feet

ADEQ STANDARD CONDITIONS ARE 293K AND 101.3 KILOPASCALS (A.A.C. R18-2-101)

****Submit emission calculations spreadsheet with your application****

General Instructions:

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7. Dimensions of nonpoint sources as defined in A.A.C. R18-2-101.

SECTION 2.3 - EQUIPMENT LIST

The following table should include all equipment utilized at the facility, and should be completed with all the requested information. Be sure to notate the units (tons/hour, horsepower, etc.) when recording the Maximum Rated Capacity information, the Serial Number and/or the Equipment ID Number. The date of manufacture must be included in order to determine if portions of the facility are NSPS applicable. Make additional copies of this form if necessary.

Submit photographs of the faceplates for all engines listed below. If an engine is certified, please also include a copy of the engine certification with the application. For any newly added equipment, include a copy of the specification sheet. These documents will be used to verify equipment information and determine applicable regulations.

Type of Equipment	Maximum Rated Capacity [1]	Make	Model	Serial Number	Date of Manufacture	Equipment ID Number
Compressor	7,700 hp	Solar	Taurus 60	NA	2008	GT-3
Compressor	7,700 hp	Solar	Taurus 60	NA	2008	GT-4
Aux. Generator	1,462 hp	Caterpillar	G3516-130LE	NA	2001	G-1
Compressor	29,626 hp	Solar	Titan 250	TBD	2020	GT-5

[1] For generator sets, enter the maximum rated capacity of the engine rather than the maximum rated capacity of the generator.

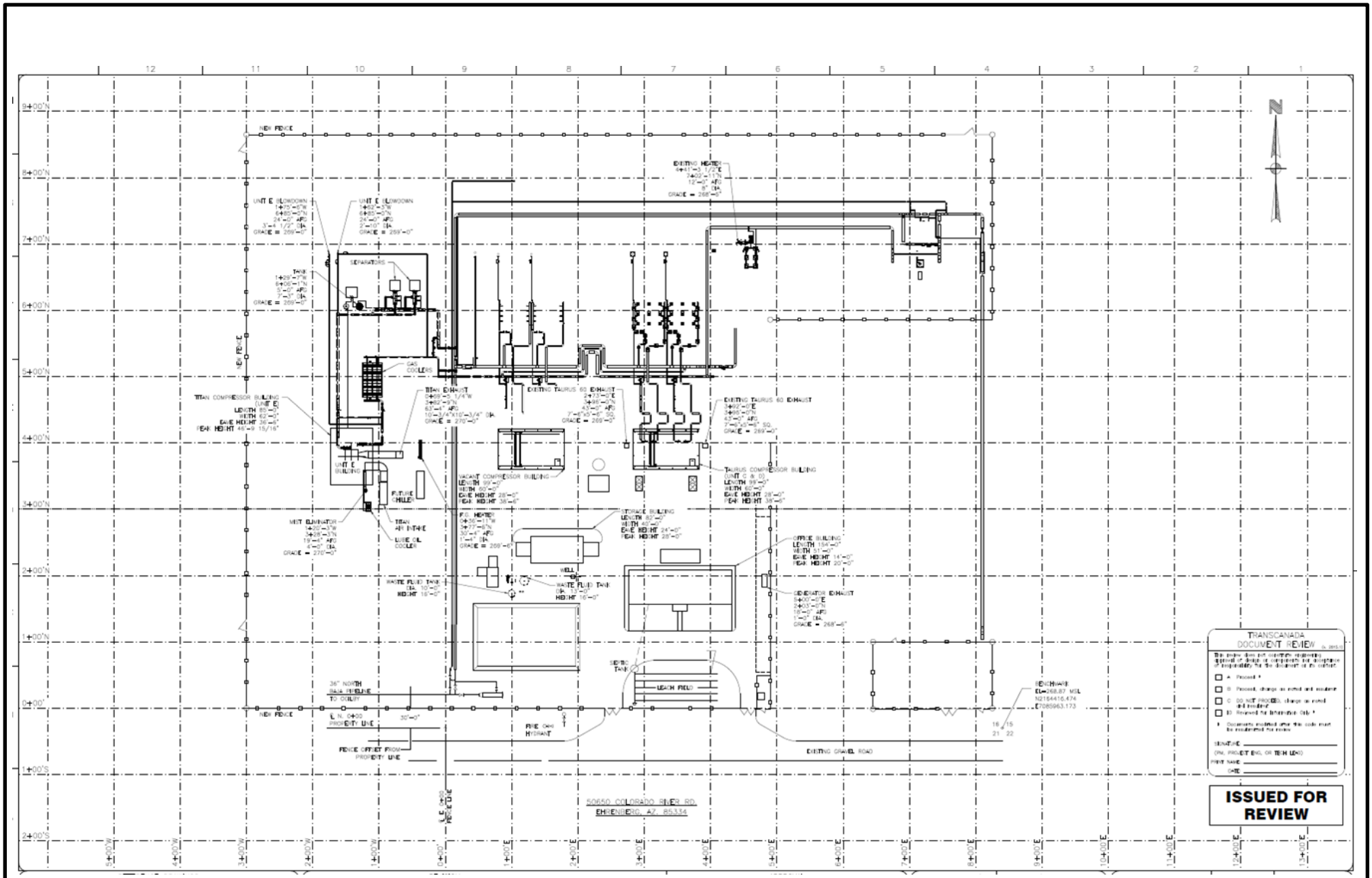
SECTION 4.0 - APPLICATION ADMINISTRATIVE COMPLETENESS CHECKLIST

	REQUIREMENT	MEETS REQUIREMENTS			COMMENT
		YES	NO	N/A	
1	Has the standard application form been completed?	X			
2	Has the responsible official signed the standard application form?	X			
3	Has a process description been provided?	X			
4	Are the facility's emissions documented with all appropriate supporting information?	X			
5	Is the facility subject to Minor NSR requirements? If the answer is "YES", answer 6a, 6b and 6c as applicable. If the answer is "NO", skip to 7.			X	NBP does not propose the construction of any new equipment
6.a	If the facility chooses to implement RACT, is the RACT determination included for the affected pollutants for all affected emission units?				
6.b	If the facility chooses to demonstrate compliance with NAAQS by screen modeling, is the modeling analysis included?				
6.c	If refined modeling has been conducted, is a comprehensive modeling report along with all modeling files included?				
7	Does the application include an equipment list with the type, name, make, model, serial number, maximum rated capacity, and date of manufacture?	X			
8	Does the application include an identification and description of Pollution Controls? (if applicable)			X	There is no pollution control equipment at the site
9	For any application component claimed as confidential, are the requirements of AR.S. 49-432 and A.A.C. R18-2-305 addressed?			X	There is no confidential information included with the application
10	For any current non-compliance issue, is a compliance schedule attached?			X	The facility is in compliance with all regulations
11	For minor permit revision that will make a modification upon submittal of application, has a suggested draft permit been attached?			X	This project is not a minor permit revision
12	For major sources, have all applicable requirements been identified?	X			
13	For major sources, has a CAM applicability analysis been provided? For CAM applicable units, have CAM plans been provided?			X	No sources at the facility are subject to CAM
14	For major sources subject to requirements under Article 4 of the A.A.C., have all necessary New Source Review analyses identified in the application been presented?	X			

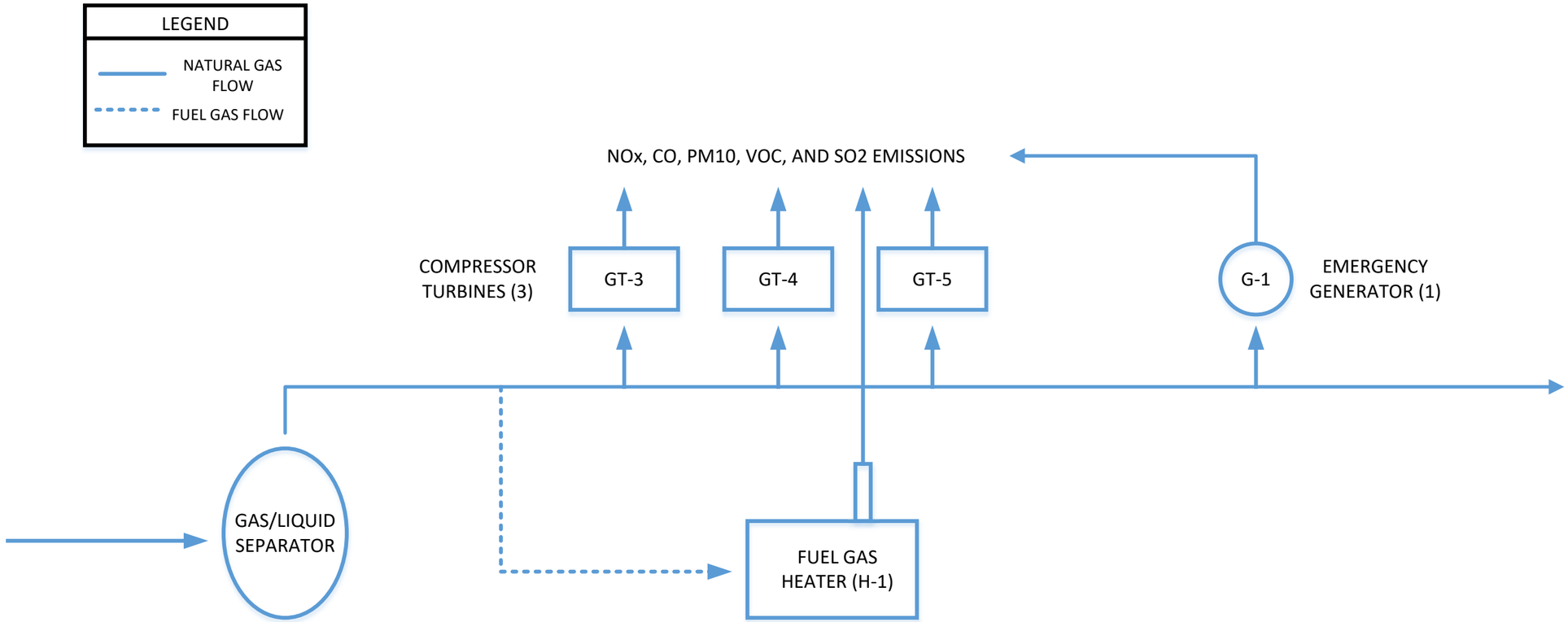
APPENDIX A

Area Maps and Process Flow Diagram

North Baja Pipeline – Ehrenberg Compressor Station, La Paz County, AZ	TC Energy	Figure 1
Site Map		November 2024



North Baja Pipeline – Ehrenberg Compressor Station, La Paz County, AZ	TC Energy	Figure 2
Plot Plan		November 2024



COMPRESSOR STATION

EHRENBERG, AZ

DATE REVISED: 6/4/2024

APPENDIX B

Emission Calculations

North Baja LLC
Ehrenberg Compressor Station - Renewal Application
December 2024

Facility Total PTE

Source	Capacity	Annual Emissions (tpy)							
		NO_x	CO	CO_2e	$PM_{10}/PM_{2.5}$	VOC	SO_2	CH_2O	Total HAP
GT-3 Solar Taurus 60 (Unit C)	7,700 hp	31.64	35.82	96,809	1.97	9.10	1.01	0.21	0.31
GT-4 Solar Taurus 60 (Unit D)	7,700 hp	31.64	35.82	96,809	1.97	9.10	1.01	0.21	0.31
GT-5 Solar Titan 250 Turbine (Unit E)	29,626 hp (59 °F)	52.45	70.44	111,317	6.27	7.47	0.68	0.67	0.98
G1 - Caterpillar Emergency Generator	1,462 hp	1.61	3.22	333	0.03	0.81	0.002	0.15	0.21
H1 - Fuel Gas Heater	0.78 MMBtu/hr	0.33	0.28	400	0.03	0.02	0.00	0.000	0.01
Equipment Leaks (fugitive emissions)[1]				224		0.08			
Venting				25,971		17.80			
Pipeline Fluids Tank	2,056 gallons					0.007			
Facility PTE[2]		**117.67**	**145.58**	**331,862**	**10.27**	**44.38**	**2.71**	**1.25**	**1.80**
PSD Major Source Threshold		250	250	n/a	250	250	250	n/a	n/a
Title V Threshold		100	100	n/a	100	100	100	10	25
Permit Applicability		Title V	Title V	Title V	None, Natural Minor	None, Natural Minor	None, Natural Minor	None, Area Source	None, Area Source

1. Fugitive emissions are not part of PSD applicability analysis.
2. Excludes fugitive emissions (compressor stations are not one of the named source categories that include fugitive emissions).
3. Turbine emissions based on 200 Start up / shut down cycles per year amd 200 hrs/year of load load operation.

North Baja LLC
Ehrenberg Compressor Station - Renewal Application
December 2024
Solar Titan 250 Turbine (Unit E)

Horsepower	29,626	hp (59 °F)
Brake Specific Fuel Consumption	6600	Btu/Bhp-hr (LHV, 59 °F)
Total Heat Input	195.53	MMBtu/hr (LHV, 59 °F)
	217.04	MMBtu/hr (HHV, 59 °F)[3]
Maximum Heat Input (at 0 °F)	207.58	MMBtu/hr (LHV, 0 °F)
	230.41	MMBtu/hr (HHV, 0 °F)[3]
Operating Hours	8760	hr/yr
Natural Gas Heat Content	1020	Btu/scf
Fuel Consumption	1863.98	MMscf/yr (based on 59 °F)
	225,895.9	scf/hr (based on 0 °F)
Quantity	1	

Pollutant	Emission Factor			Emission Rate		Emission Factor Reference
	ppmvd@15%O_2	lb/MMBtu		lb/hr[1]	ton/yr[2]	
NO_x	15.00	0.060	LHV	11.68	52.45	Vendor Data
CO	25.00	0.061	LHV	11.85	70.44	Vendor Data
CO_2e		117.1	HHV	25,415	111,317	40 CFR 98 Subpart C
PM 10 Filterable		1.90E-03	HHV	0.41	1.81	AP-42 Table 3.1-2a (4/00)
PM 2.5 Filterable		1.90E-03	HHV	0.41	1.81	AP-42 Table 3.1-2a (4/00)
PM Condensible		4.70E-03	HHV	1.02	4.47	AP-42 Table 3.1-2a (4/00)
PM10 Total		6.60E-03	HHV	1.43	6.27	AP-42 Table 3.1-2a (4/00)
PM2.5 Total		6.60E-03	HHV	1.43	6.27	AP-42 Table 3.1-2a (4/00)
VOC	5.00	0.007	LHV	1.36	7.47	Vendor Data (20% of UHC)[4]
SO_2 (Maximum Hourly)		0.0571	HHV	12.39		20 grains S / 100 scf
SO_2 (Average Annual)		0.000714	HHV		0.68	0.25 grains S / 100 scf
Formaldehyde		0.00071	HHV	0.15	0.67	AP-42 Table 3.1-3 (4/00)
Total HAPs		0.00103	HHV	0.22	0.98	AP-42 Table 3.1-3 (4/00)

1. Maximum hourly emission rate based on normal operation at 59 °F. Heat input, fuel consumption, and emissions increase as temperature decreases, and for the purpose of this application, hourly emissions are characterized by Solar emissions data for 59 °F.

2. Annual emission rate based on combination of potential operating modes as provided on following page for NOx, CO, and VOC. The operating modes are 200 hours at low load (>40% load) and 200 startups and shutdowns per year. The remainder of the hours per year are based on emissions at normal load (59 °F). All other pollutants based on horsepower and brake specific fuel consumption at 59 °F.

3. HHV heat input based on HHV=1.11*LHV

4. VOC based on 20% of vendor data for unburned hydrocarbon.

North Baja LLC
Ehrenberg Compressor Station - Renewal Application
December 2024
Solar Titan 250 Turbine (Unit E) - Emission Rates

Emission Rates per Operating Mode

Operating Mode	Units	NO_x	CO	VOC
Normal Load @ 59°F[1]	lb/hr	11.68	11.85	1.36
Low Temp (<0 °F)[1]	lb/hr	12.44	12.62	1.45
Low-Load (<50%)[2]	lb/hr	24.50	149.20	12.80
Startup/ Shutdown[3]	lb/event	4.00	52.00	4.00

1. Based on data from Solar Titan 250 Compressor Set Predicted Emission Performance data sheet and the following concentrations:
15 ppm NOx; 25 ppm CO; 5 ppm VOC
2. For the purpose of calculating potential annual emissions, non-startup/shutdown operation at <50% load is based on emissions data provided by Solar for 40% load.
3. Based on data from Solar PIL170 for SoLoNOx Titan 250 31900D Application Nominal Start-up and Shutdown, Natural Gas Fuel, Production Units with Enhanced Emissions Control.

Potential Annual Emissions Per Turbine

Operating Mode	Operating Time[1]		NO_x	CO	VOC
	Cycles	hr/yr	ton/yr	ton/yr	ton/yr
Normal Load @ 59 °F		8493	49.60	50.32	5.79
Low Temp (<0 °F)[2]		0	0.00	0.00	0.00
Low-Load (<40%)		200	2.45	14.92	1.28
Startup/ Shutdown	200	67	0.40	5.20	0.40
Total		8,760	52.45	70.44	7.47

1. Startup/Shutdown cycles based on 20 minute cycle time. Based on Startup/Shutdown event time of 10 minutes each as listed in Solar PIL 170 (Revision 5, June 13, 2012)
2. Potential emissions assumed no low-temperature operation. Based on 5-year review of temperatures of Ehrenberg, AZ, there were no days less than 0 deg F.

Emission Rates During Normal Operation (g/hp-hr)[1]

Emission Point ID / Model	NO_x	CO	VOC[2]	SO_2[3]	PM_{10} / $PM_{2.5}$	CH_2O
T01 / Solar Titan 250	0.00	0.00	0.00	0.00	*0.00*	*0.000*

1. Based on vendor performance data; values in italics based on AP-42 emission factors.
2. VOC is based on 20 percent of unburned hydrocarbons per Solar Product Information Letter 168.
3. Conservatively based on 20 grains sulfur per 100 standard cubic feet of natural gas for maximum short-term emissions.

North Baja LLC
Ehrenberg Compressor Station - Renewal Application
December 2024
Emissions from Venting - Solar Titan 250 Turbine (Unit E)

Number of Pneumatic Actuators:	10	
Pneumatic Actuator Vent Rate:	3	scf/hr/actuator
Number of Startup/Shutdown Cycles:	200	
Electric Starter Emissions per Startup:	0	scf
Blowdown Emissions per Shutdown:	75,858	scf
Number of Turbines	1	
Number of Dry Seals:	2	
Dry Seal Vent Rate:	0.5	scf/min/seal
Emergency Blowdown Events per Year:	1	per year
Blowdown Emissions - T01:	75,858	scf per event
Blowdown Emissions - Balance of Station:	963,758	scf per event
Blowdown Emissions per Event:	1,039,616	scf per event
Blowdown Emissions per Year:	1,039,616	scf
Annual Operating Hours:	8,760	

Component	Emission Rate								
	Total	CH_4[2]	CO_2[2]	CH_4[3]	CO_2[3]	CH_4	CO_2	CO_2e[4]	VOC[6]
Continuous During Operation	**scf/hr**	**scf/hr**	**scf/hr**	**lb/hr**	**lb/hr**	**ton/yr**	**ton/yr**	**ton/yr**	**ton/yr**
Pneumatic Actuator (Total for number of units)	30.00	28.18	0.16	1.19	0.02	5.22	0.08	130.70	0.09
Dry Seals (Total for number of units)	60.00	56.36	0.31	2.39	0.04	10.45	0.16	261.40	0.18
Intermittent During Startup/Shutdown	**scf/event**	**scf/event**	**scf/event**	**lb/event**	**lb/event**	**ton/yr**	**ton/yr**	**ton/yr**	**ton/yr**
Pneumatic Starter (Total for number of units)[1]	0	0	0	0	0	0	0	0	0.00
Blowdowns (Total for number of units)[1,5]	75,858	71,259	397	3,016	46	302	5	7,545	5.17
Emergency Blowdown	**scf/year**	**scf/year**	**scf/year**			**ton/yr**	**ton/yr**	**ton/yr**	**ton/yr**
Blowdown Emissions	1,039,616	976,581	5,435			20.67	0.12	517	0.35
							Total:	8,454	5.79

1. Emission rates per event instead of per hour
2. CH_4 and CO_2 emission rates based on 93.94 vol% CH_4 and 0.0052 vol% CO_2 in natural gas
3. Conversion based on densities of GHG as provided in 40 CFR 98.233(v)
4. Based on 40 CFR 98 Subpart A Global Warming Potentials
5. Conservative estimate based on 1 blowdown per shutdown. It is not expected that a blowdown will occur after each shutdown.
6. Based on a 0.017 ratio of VOC to methane as calculated from gas composition.

SITEWIDE FUGITIVE EMISSION CALCULATIONS
North Baja LLC
Ehrenberg Compressor Station - Renewal Application
Fugitive Emissions from Leaks - Solar Titan 250 Turbine (Unit E)

Annual Hours of Operation: 8760
Component Count Buffer: 10%
Ideal gas law conversion factor: 379.48 scf/lb-mole
Conversion lb to ton: 2000
Conversion kg to lb: 2.20

Component Type	Number of Components [1]	Fugitive Emission Factor [2, 3]	Emissions								
			Total Hydrocarbons		VOC		HAP [4]		CH4	CO2	CO2e [5]
		(lb/hr/component)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(tpy)	(tpy)	(tpy)
Valves	171	0.0099	1.6965	7.4305	0.0129	0.0565	0.0001	0.0003	6.5710	0.1688	164.4427
Flange	1	0.0009	0.0009	0.0038	0.0000	0.0000	0.0000	0.0000	0.0033	0.0001	0.0833
Connectors	349	0.0004	0.1539	0.6740	0.0012	0.0051	0.0000	0.0000	0.5960	0.0153	14.9163
Open-Ended Lines	29	0.0044	0.1279	0.5601	0.0010	0.0043	0.0000	0.0000	0.4953	0.0127	12.3946
Pressure Relief Valves	14	0.0194	0.2716	1.1896	0.0021	0.0090	0.0000	0.0000	1.0520	0.0270	26.3279
Pump Seals	0	0.0053	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Other	3	0.0194	0.0582	0.2549	0.0004	0.0019	0.0000	0.0000	0.2254	0.0058	5.6417
Low Continuous Bleed Controllers	0	0.0636	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
High Continuous Bleed Controllers	0	1.7077	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Intermittent Bleed Controllers	0	0.6181	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Pneumatic Pumps	0	0.6089	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
				Total:		**0.08**		**0.00**	**8.94**	**0.23**	**223.81**

1 Number of components based on site-specific component count or similar facility with a 10% buffer for a conservative count.

2 Fugitive emission factor from EPA-453/R-95-017, Table 2-4 - November 1995 Guidance - Oil & Gas Production Operations Average Emission Factors' from 'Protocol for Equipment Leak Emission Estimates'.

3 Fugitive emission factor for controllers and pnuematic pumps from 40 CFR 98, Subpart W, Table W-1A

4 Gas composition of C6+ from site specific analysis. HAP composition is based on GRI-GLYCALC factors for Transmission Industry Segment.

5 CO2e is carbon dioxide equivalent, which is the summation of CO2 (GWP = 1) + CH4 (GWP = 25) + N2O (GWP = 298).

GAS ANALYSIS:

Weight%:	
VOC	0.76%
HAP	0.00%
CH4	88.43%
CO2	2.27%
Gas Molecular Weight:	17.37
Gas Specific Gravity:	0.60
Molecular Weight of Air:	28.97
Density of Gas Sample (lb/scf):	4.59

North Baja LLC
Ehrenberg Compressor Station - Renewal Application
December 2024
Fuel Gas Heater (H1)

Heat Input	0.780	MMBtu/hr
Operating Hours	8,760	hr/yr
Natural Gas Heat Content	1,020	Btu/scf
Fuel Consumption	6.70	MMscf/yr
	765	scf/hr

Pollutant	Emission Factor		Emission Rate		Emission Factor Reference
	lb/MMscf	lb/MMBtu	lb/hr	ton/yr	
NO_x	100	0.098	0.08	0.33	AP-42 Table 1.4-1 (7/98)
CO	84	0.082	0.06	0.28	AP-42 Table 1.4-1 (7/98)
CO_2e		117.1	91	400	40 CFR 98 Subpart C
PM 10 Filterable	1.9	0.002	0.00	0.01	AP-42 Table 1.4-2 (7/98)
PM 2.5 Filterable	1.9	0.002	0.00	0.01	AP-42 Table 1.4-2 (7/98)
PM Condensible	5.7	0.006	0.00	0.02	AP-42 Table 1.4-2 (7/98)
PM10 Total	7.6	0.007	0.01	0.03	AP-42 Table 1.4-2 (7/98)
PM2.5 Total	7.6	0.007	0.01	0.03	AP-42 Table 1.4-2 (7/98)
VOC	5.5	0.005	0.00	0.02	AP-42 Table 1.4-2 (7/98)
SO_2 (Maximum Hourly)		0.0571	0.04		20 grains S / 100 scf
SO_2 (Average Annual)		0.000714		0.00	0.25 grains S / 100 scf
Formaldehyde	0.075	0.00007	0.0001	0.000	AP-42 Table 1.4-3 (7/98)
Total HAPs	1.89	0.00185	0.001	0.01	AP-42 Table 1.4-3 & 4 (7/98)

North Baja LLC
Ehrenberg Compressor Station - Renewal Application
December 2024
Pipeline Fluids Tank (A01)

Volume	2,056	gallons
Turnovers	8.40	
Net throughput	15,000	gal/year
Operating Hours	8,760	hr/yr

Pollutant	Losses		Emission Rate		Reference
	Working (lb/year)	Breathing (lb/year)	lb/year	ton/year	
VOC	6.86	7.69	14.55	0.0073	AP-42 5th Edition, Chapter 7.1, June 2020

Notes:
Phoenix, AZ meteorological data (from TANKS database) used in emissions calculations
Vertical tank, unheated and above ground
Double Walled
Tank Diameter 5.8'
Tank Height 10'

TITLE V RENEWAL
NORTH BAJA PIPELINE, LLC
EHRENBERG COMPRESSOR STATION, ARIZONA

Emission Unit No.	**GT-3 (Unit C)**	
Description of Unit	**Solar Taurus 60 Natural Gas-Fired Turbine**	
Manufacturer	Solar	
Date of Construction/Modification	2008	
Stroke Cycle	Turbine	
Type of Burn	Turbine	
Fuel Used	Natural Gas	
Lower Heating Value (HHV)	918	Btu/scf
Higher Heating Value (HHV)	1,020	Btu/scf
Rated Horsepower (hp)	7,700	hp
Heat Rate (Btu/hp-hr)	7,965	Btu/hp-hr
Heat Input (MMBtu/hr)	61.33	MMBtu/hr
Minimum Hourly Fuel Consumption	60,128	scf/hr
Maximum Hourly Fuel Consumption	66,809	scf/hr
Control Device	N/A	
Annual Hours of Operation	8,760	hr/yr
Maximum Annual Fuel Consumption	585.25	MMscf/yr

Emission Factors:

Pollutant	Emission Factor	Emission Factor Units	Emission Factor Source
NO_x	0.106	lb/MMBtu	a
CO	0.12	lb/MMBtu	b
VOC	0.0305	lb/MMBtu	c
PM 10 Filterable	1.90E-03	lb/MMBtu	d
PM 2.5 Filterable	1.90E-03	lb/MMBtu	d
PM Condensible	4.70E-03	lb/MMBtu	d
PM10 Total	6.60E-03	lb/MMBtu	d
PM2.5 Total	6.60E-03	lb/MMBtu	d
SO_2	3.40E-03	lb/MMBtu	d

[a] Based on Condition II.A.3.(a) listed in current Title V Permit (2012).
[b] Based on Condition II.A.4.(a) listed in current Title V Permit (2012).
[c] Based on Borders West Master Workbook.
[d] Based on AP-42 Table 3.1-2a "Emission Factors for Criteria Pollutants and Greenhouse Gases from Stationary Gas Turbines" (4/00).

POTENTIAL EMISSIONS:

Pollutant	Emission Rate lb/hr	Calculation Methodology	Potential Emissions ton/yr [f]
NO_x	7.22	e	31.64
CO	8.18	e	35.82
VOC	2.08	e	9.10
PM 10 Filterable	0.13	e	0.57
PM 2.5 Filterable	0.13	e	0.57
PM Condensible	0.32	e	1.40
PM10 Total	0.45	e	1.97
PM2.5 Total	0.45	e	1.97
SO_2	0.23	e	1.01

[e] Emission Rate (lb/hr) = (Emission Factor, lb/MMBtu) * (Max Fuel Consumption, scf/hr) * (Maximum HHV, Btu/scf) * (MM/1,000,000)
[f] Potential Emissions (ton/yr) = (Emission Rate, lb/hr) * (Annual Operation, hrs/yr) * (1 ton/2000 lb)

HAP Calculated Emissions:

Pollutant	Emission Factor (lb/MMBtu)[g]	Potential Emissions (lb/hr)[h]	Potential Emissions (tons/yr)[i]
HAPs:			
1,1,2,2-Tetrachloroethane	0.00E+00	0.00E+00	0.0000
1,1,2-Trichloroethane	0.00E+00	0.00E+00	0.0000
1,3-Butadiene	4.30E-07	2.93E-05	0.0001
1,3-Dichloropropene	0.00E+00	0.00E+00	0.0000
2,2,4-Trimethylpentane	0.00E+00	0.00E+00	0.0000
2-Methylnaphthalene	0.00E+00	0.00E+00	0.0000
Acenaphthene	0.00E+00	0.00E+00	0.0000
Acenaphthylene	0.00E+00	0.00E+00	0.0000
Acetaldehyde	4.00E-05	2.73E-03	0.0119
Acrolein	6.40E-06	4.36E-04	0.0019
Anthracene	0.00E+00	0.00E+00	0.0000
Benz(a)anthracene	0.00E+00	0.00E+00	0.0000
Benzene	1.20E-05	8.18E-04	0.0036
Benzo(a)pyrene	0.00E+00	0.00E+00	0.0000
Benzo(b)fluoranthene	0.00E+00	0.00E+00	0.0000
Benzo(e)pyrene	0.00E+00	0.00E+00	0.0000
Benzo(g,h,i)perylene	0.00E+00	0.00E+00	0.0000
Benzo(k)fluoranthene	0.00E+00	0.00E+00	0.0000
Biphenyl	0.00E+00	0.00E+00	0.0000
Carbon Tetrachloride	0.00E+00	0.00E+00	0.0000
Chlorobenzene	0.00E+00	0.00E+00	0.0000
Chloroform	0.00E+00	0.00E+00	0.0000
Chrysene	0.00E+00	0.00E+00	0.0000
Ethylbenzene	3.20E-05	2.18E-03	0.0096
Ethylene Dibromide	0.00E+00	0.00E+00	0.0000
Fluoranthene	0.00E+00	0.00E+00	0.0000
Fluorene	0.00E+00	0.00E+00	0.0000
Formaldehyde	7.10E-04	4.84E-02	0.2119
Indeno(1,2,3-c,d)pyrene	0.00E+00	0.00E+00	0.0000
Methanol	0.00E+00	0.00E+00	0.0000
Methylene Chloride	0.00E+00	0.00E+00	0.0000
n-Hexane	0.00E+00	0.00E+00	0.0000
Naphthalene	1.30E-06	8.86E-05	0.0004
PAH	2.20E-06	1.50E-04	0.0007
Perylene	0.00E+00	0.00E+00	0.0000
Phenanthrene	0.00E+00	0.00E+00	0.0000
Phenol	0.00E+00	0.00E+00	0.0000
Propylene Oxide	2.90E-05	1.98E-03	0.0087
Pyrene	0.00E+00	0.00E+00	0.0000
Styrene	0.00E+00	0.00E+00	0.0000
Toluene	1.30E-04	8.86E-03	0.0388
Vinyl Chloride	0.00E+00	0.00E+00	0.0000
Xylene	6.40E-05	4.36E-03	0.0191
Total HAP		**0.07**	**0.31**

[g] AP-42 Table 3.1-3 "Emission Factors for Hazardous Air Pollutants from Natural Gas-Fired Stationary Gas Turbines" (4/00).

[h] Emission Rate (lb/hr) = (Emission Factor, lb/MMBtu) * (Max Fuel Consumption, scf/hr) * (Maximum HHV, Btu/scf) * (MM/1,000,000)

[i] Emission Rate (ton/yr) = (Emission Rate, lb/hr) * (Annual Hours of Operation, hrs/yr) * (1 ton/2000 lb)

TITLE V RENEWAL
NORTH BAJA PIPELINE, LLC
EHRENBERG COMPRESSOR STATION, ARIZONA

Unit ID No.: **GT-3 (Unit C)**
Description of Unit: **Solar Taurus 60 Natural Gas-Fired Turbine**
Annual Fuel [1] 1,500,000.00 MMBtu

Potential Greenhouse Gas (GHG) Emission Calculations[2]

Pollutant	Uncontrolled Emission Factor[2]	Factor Units[2]	Annual Emissions (lb/year)	Emissions (lb/hr)	Emissions (metric TPY)	Emissions (short TPY)	Global Warming Potential (GWP)[2]	CO2e Emissions (lb/hr)	CO2e Emissions (metric TPY)	CO2e Emissions (short TPY)
CO_2	53.06	kg CO_2/MMBtu	1.75E+08	20,030.36	87732.97	96708.93	1	20030.36	87732.97	96708.93
CH_4	0.001	kg CH_4/MMBtu	3.31E+03	0.38	1.65	1.82	25	9.44	41.34	45.57
N_2O	0.0001	kg N_2O/MMBtu	3.31E+02	0.04	0.17	0.18	298	11.25	49.27	54.31
TOTAL GHGs	--	--	--	**20030.77**	**87734.79**	**96710.94**	--	--	--	--
TOTAL GHGs (CO_2e)	--	--	--	--	--		--	**20051.05**	**87823.58**	**96808.81**

[1] Annual fuel based on Condition II.A.2.(b) listed in current Title V Permit (2012).
[2] Based on 40 CFR 98 Subpart C, 98.33(a)(1)(i), Tier 1 Methodology, Equation C-1 and using source specific heat input.

GHG Emissions (lb/hr) = EF_{GHG} (kg/MMBtu) * 2.204623 lb/kg * Source Specific Heat Input (MMbtu/hr)
GHG Emissions (TPY) = GHG Emissions (lb/hr) * Annual Hoperating Hours (hr/yr) * 1 Ton/2000 lb
CO_2e Emissions (TPY) = Σ (GHG Emissions (tpy) * GWP)

Where:

EF_{GHG} = Fuel-specific default CO_2, CH_4, or N_2O emission factors from Table C-1 for CO_2 (Natural gas - Weighted U.S. Average) and Table C-2 for CH_4 and N_2O (Natural Gas) of 40 CFR Part 98, Subpart C (kg/MMBtu)
Heat Input = Btu/hp-hr x Site-rated hp x (1 MMBtu/1,000,000 Btu) = MMBtu/hr
GWP = Global Warming Potentials, 40 CFR 98, Subpart A, Table A-1

TITLE V RENEWAL
NORTH BAJA PIPELINE, LLC
EHRENBERG COMPRESSOR STATION, ARIZONA

Emission Unit No.	**GT-4 (Unit D)**	
Description of Unit	**Solar Taurus 60 Natural Gas-Fired Turbine**	
Manufacturer	Solar	
Date of Construction/Modification	6/4/2008	
Stroke Cycle	Turbine	
Type of Burn	Turbine	
Fuel Used	Natural Gas	
Lower Heating Value (HHV)	918	Btu/scf
Higher Heating Value (HHV)	1,020	Btu/scf
Rated Horsepower (hp)	7,700	hp
Heat Rate (Btu/hp-hr)	7,965	Btu/hp-hr
Heat Input (MMBtu/hr)	61.33	MMBtu/hr
Minimum Hourly Fuel Consumption	60,128	scf/hr
Maximum Hourly Fuel Consumption	66,809	scf/hr
Control Device	N/A	
Annual Hours of Operation	8,760	hr/yr
Maximum Annual Fuel Consumption	585.25	MMscf/yr

Emission Factors:

Pollutant	Emission Factor	Emission Factor Units	Emission Factor Source
NO_x	0.106	lb/MMBtu	a
CO	0.12	lb/MMBtu	b
VOC	0.0305	lb/MMBtu	c
PM 10 Filterable	1.90E-03	lb/MMBtu	d
PM 2.5 Filterable	1.90E-03	lb/MMBtu	d
PM Condensible	4.70E-03	lb/MMBtu	d
PM10 Total	6.60E-03	lb/MMBtu	d
PM2.5 Total	6.60E-03	lb/MMBtu	d
SO_2	3.40E-03	lb/MMBtu	d

[a] Based on Condition II.A.3.(a) listed in current Title V Permit (2012).
[b] Based on Condition II.A.4.(a) listed in current Title V Permit (2012).
[c] Based on Borders West Master Workbook.
[d] Based on AP-42 Table 3.1-2a "Emission Factors for Criteria Pollutants and Greenhouse Gases from Stationary Gas Turbines" (4/00).

POTENTIAL EMISSIONS:

Pollutant	Emission Rate lb/hr	Calculation Methodology	Potential Emissions ton/yr [f]
NO_x	7.22	e	31.64
CO	8.18	e	35.82
VOC	2.08	e	9.10
PM 10 Filterable	0.13	e	0.57
PM 2.5 Filterable	0.13	e	0.57
PM Condensible	0.32	e	1.40
PM10 Total	0.45	e	1.97
PM2.5 Total	0.45	e	1.97
SO_2	0.23	e	1.01

[e] Emission Rate (lb/hr) = (Emission Factor, lb/MMBtu) * (Max Fuel Consumption, scf/hr) * (Maximum HHV, Btu/scf) * (MM/1,000,000)
[f] Potential Emissions (ton/yr) = (Emission Rate, lb/hr) * (Annual Operation, hrs/yr) * (1 ton/2000 lb)

HAP Calculated Emissions:

Pollutant	Emission Factor (lb/MMBtu)[g]	Potential Emissions (lb/hr)[h]	Potential Emissions (tons/yr)[i]
HAPs:			
1,1,2,2-Tetrachloroethane	0.00E+00	0.00E+00	0.0000
1,1,2-Trichloroethane	0.00E+00	0.00E+00	0.0000
1,3-Butadiene	4.30E-07	2.93E-05	0.0001
1,3-Dichloropropene	0.00E+00	0.00E+00	0.0000
2,2,4-Trimethylpentane	0.00E+00	0.00E+00	0.0000
2-Methylnaphthalene	0.00E+00	0.00E+00	0.0000
Acenaphthene	0.00E+00	0.00E+00	0.0000
Acenaphthylene	0.00E+00	0.00E+00	0.0000
Acetaldehyde	4.00E-05	2.73E-03	0.0119
Acrolein	6.40E-06	4.36E-04	0.0019
Anthracene	0.00E+00	0.00E+00	0.0000
Benz(a)anthracene	0.00E+00	0.00E+00	0.0000
Benzene	1.20E-05	8.18E-04	0.0036
Benzo(a)pyrene	0.00E+00	0.00E+00	0.0000
Benzo(b)fluoranthene	0.00E+00	0.00E+00	0.0000
Benzo(e)pyrene	0.00E+00	0.00E+00	0.0000
Benzo(g,h,i)perylene	0.00E+00	0.00E+00	0.0000
Benzo(k)fluoranthene	0.00E+00	0.00E+00	0.0000
Biphenyl	0.00E+00	0.00E+00	0.0000
Carbon Tetrachloride	0.00E+00	0.00E+00	0.0000
Chlorobenzene	0.00E+00	0.00E+00	0.0000
Chloroform	0.00E+00	0.00E+00	0.0000
Chrysene	0.00E+00	0.00E+00	0.0000
Ethylbenzene	3.20E-05	2.18E-03	0.0096
Ethylene Dibromide	0.00E+00	0.00E+00	0.0000
Fluoranthene	0.00E+00	0.00E+00	0.0000
Fluorene	0.00E+00	0.00E+00	0.0000
Formaldehyde	7.10E-04	4.84E-02	0.2119
Indeno(1,2,3-c,d)pyrene	0.00E+00	0.00E+00	0.0000
Methanol	0.00E+00	0.00E+00	0.0000
Methylene Chloride	0.00E+00	0.00E+00	0.0000
n-Hexane	0.00E+00	0.00E+00	0.0000
Naphthalene	1.30E-06	8.86E-05	0.0004
PAH	2.20E-06	1.50E-04	0.0007
Perylene	0.00E+00	0.00E+00	0.0000
Phenanthrene	0.00E+00	0.00E+00	0.0000
Phenol	0.00E+00	0.00E+00	0.0000
Propylene Oxide	2.90E-05	1.98E-03	0.0087
Pyrene	0.00E+00	0.00E+00	0.0000
Styrene	0.00E+00	0.00E+00	0.0000
Toluene	1.30E-04	8.86E-03	0.0388
Vinyl Chloride	0.00E+00	0.00E+00	0.0000
Xylene	6.40E-05	4.36E-03	0.0191
Total HAP		**0.07**	**0.31**

[g] AP-42 Table 3.1-3 "Emission Factors for Hazardous Air Pollutants from Natural Gas-Fired Stationary Gas Turbines" (4/00).

[h] Emission Rate (lb/hr) = (Emission Factor, lb/MMBtu) * (Max Fuel Consumption, scf/hr) * (Maximum HHV, Btu/scf) * (MM/1,000,000)

[i] Emission Rate (ton/yr) = (Emission Rate, lb/hr) * (Annual Hours of Operation, hrs/yr) * (1 ton/2000 lb)

TITLE V RENEWAL
NORTH BAJA PIPELINE, LLC
EHRENBERG COMPRESSOR STATION, ARIZONA

Unit ID No.: **GT-4 (Unit D)**
Description of Unit: **Solar Taurus 60 Natural Gas-Fired Turbine**
Annual Fuel [1] 1,500,000.00 MMBtu

Potential Greenhouse Gas (GHG) Emission Calculations[2]

Pollutant	Uncontrolled Emission Factor[2]	Factor Units[2]	Annual Emissions (lb/year)	Emissions (lb/hr)	Emissions (metric TPY)	Emissions (short TPY)	Global Warming Potential (GWP)[2]	CO2e Emissions (lb/hr)	CO2e Emissions (metric TPY)	CO2e Emissions (short TPY)
CO_2	53.06	kg CO_2/MMBtu	1.75E+08	20030.36	87732.97	96708.93	1	20030.36	87732.97	96708.93
CH_4	0.001	kg CH_4/MMBtu	3.31E+03	0.38	1.65	1.82	25	9.44	41.34	45.57
N_2O	0.0001	kg N_2O/MMBtu	3.31E+02	0.04	0.17	0.18	298	11.25	49.27	54.31
TOTAL GHGs	--	--	--	**20030.77**	**87734.79**	**96710.94**	--	--	--	--
TOTAL GHGs (CO_2e)	--	--	--	--	--		--	**20051.05**	**87823.58**	**96808.81**

[1] Annual fuel based on Condition II.A.2.(b) listed in current Title V Permit (2012).
[2] Based on 40 CFR 98 Subpart C, 98.33(a)(1)(i), Tier 1 Methodology, Equation C-1 and using source specific heat input.

GHG Emissions (lb/hr) = EF_{GHG} (kg/MMBtu) * 2.204623 lb/kg * Source Specific Heat Input (MMbtu/hr)
GHG Emissions (TPY) = GHG Emissions (lb/hr) * Annual Hoperating Hours (hr/yr) * 1 Ton/2000 lb
CO_2e Emissions (TPY) = Σ (GHG Emissions (tpy) * GWP)

Where:

EF_{GHG} = Fuel-specific default CO_2, CH_4, or N_2O emission factors from Table C-1 for CO_2 (Natural gas - Weighted U.S. Average) and Table C-2 for CH_4 and N_2O (Natural Gas) of 40 CFR Part 98, Subpart C (kg/MMBtu)
Heat Input = Btu/hp-hr x Site-rated hp x (1 MMBtu/1,000,000 Btu) = MMBtu/hr
GWP = Global Warming Potentials, 40 CFR 98, Subpart A, Table A-1

North Baja LLC
Ehrenberg Compressor Station - Renewal Application
December 2024
Caterpillar G3516 Emergency Generator (G1)

Horsepower	1,462	hp
Brake Specific Fuel Consumption	7,790	Btu/Bhp-hr (HHV)
	7,082	Btu/Bhp-hr (LHV)
Total Heat Input	11.39	MMBtu/hr
Operating Hours	500	hr/yr
Natural Gas Heat Content	1,020	Btu/scf
Fuel Consumption	5.58	MMscf/yr
	11,166	scf/hr

Pollutant	Emission Factor			Emission Rate		Emission Factor Reference
	g/bhp-hr	ppm @ 15% O2	lb/MMBtu	lb/hr	ton/yr	
NO_x	2.00	160		6.45	1.61	NSPS Subpart JJJJ Limitation
CO	4.00	540		12.89	3.22	NSPS Subpart JJJJ Limitation
CO_2e			117.1	1,334	333	40 CFR 98 Subpart C
PM 10 Filterable			7.71E-05	0.00	0.00	AP-42 Table 3.2-2 (7/00) - 4SLB
PM 2.5 Filterable			7.71E-05	0.00	0.00	AP-42 Table 3.2-2 (7/00) - 4SLB
PM Condensible			9.91E-03	0.11	0.03	AP-42 Table 3.2-2 (7/00) - 4SLB
PM10 Total			0.010	0.11	0.03	AP-42 Table 3.2-2 (7/00) - 4SLB
PM2.5 Total			0.010	0.11	0.03	AP-42 Table 3.2-2 (7/00) - 4SLB
VOC	1.00	86		3.22	0.81	NSPS Subpart JJJJ Limitation
SO_2 (Maximum Hourly)			0.0571	0.65		20 grains S / 100 scf
SO_2 (Average Annual)			0.000714		0.002	0.25 grains S / 100 scf
Formaldehyde[1]	0.19			0.61	0.15	Vendor Data
Total HAPs			0.07317	0.83	0.21	AP-42 Table 3.2-2 (7/00) - 4SLB

1. Emission factors from vendor specification sheet for Caterpiller gas engine 3615 Series.

North Baja LLC
Ehrenberg Compressor Station - Renewal Application
December 2024
Emissions from Venting - Solar Taurus 60 Natural Gas-Fired Turbines (Units C and D)

Number of Pneumatic Actuators:	7	per turbine
Pneumatic Actuator Vent Rate:	3	scf/hr/actuator
Number of Startup/Shutdown Cycles:	200	per turbine per year
Electric Starter Emissions per Startup:	0	scf
Blowdown Emissions per Shutdown:	81,908	scf
Number of Turbines	2	
Number of Dry Seals:	2	per turbine
Dry Seal Vent Rate:	0.5	scf/min/seal
Emergency Blowdown Events per Year:	1	per year
Blowdown Emissions - T01:	81,908	scf per event
Blowdown Emissions - Balance of Station:	957,708	scf per event
Blowdown Emissions per Event:	1,039,616	scf per event
Blowdown Emissions per Year:	1,039,616	scf
Annual Operating Hours:	8,760	

Component	Emission Rate								
	Total	**CH_4[2]**	**CO_2[2]**	**CH_4[3]**	**CO_2[3]**	**CH_4**	**CO_2**	**CO_2e[4]**	**VOC[6]**
Continuous During Operation	**scf/hr**	**scf/hr**	**scf/hr**	**lb/hr**	**lb/hr**	**ton/yr**	**ton/yr**	**ton/yr**	**ton/yr**
Pneumatic Actuator (Total for number of units)	42.00	39.45	0.22	1.67	0.03	7.31	0.11	182.98	0.13
Dry Seals (Total for number of units)	120.00	112.72	0.63	4.77	0.07	20.90	0.32	522.79	0.36
Intermittent During Startup/Shutdown	**scf/event**	**scf/event**	**scf/event**	**lb/event**	**lb/event**	**ton/yr**	**ton/yr**	**ton/yr**	**ton/yr**
Pneumatic Starter (Total for number of units)[1]	0	0	0	0	0	0	0	0	0.00
Blowdowns (Total for number of units)[1,5]	163,816	153,883	856	6,514	99	651	10	16,294	11.16
Emergency Blowdown	**scf/year**	**scf/year**	**scf/year**			**ton/yr**	**ton/yr**	**ton/yr**	**ton/yr**
Blowdown Emissions	1,039,616	976,581	5,435			20.67	0.12	517	0.35
							Total:	17,517	12.00

1. Emission rates per event instead of per hour
2. CH_4 and CO_2 emission rates based on 93.78 vol% CH_4 and 0.0072 vol% CO_2 in natural gas
3. Conversion based on densities of GHG as provided in 40 CFR 98.233(v)
4. Based on 40 CFR 98 Subpart A Global Warming Potentials
5. Conservative estimate based on 1 blowdown per shutdown. It is not expected that a blowdown will occur after each shutdown.
6. Based on a 0.016 ratio of VOC to methane as calculated from gas composition.

North Baja LLC
Ehrenberg Compressor Station - Renewal Application
December 2024
Fugitive Emissions from Leaks - Solar Taurus 60 Natural Gas-Fired Turbines (Units C and D)

Number of Compressors: 1
Annual Operating Hours: 8,760

Component	Average Number of Leaking Components[1]	Emission Factor[2]	Total Emission Rate (1 compressor)								
			Total	CH_4[3]	CO_2[3]	CH_4[4]	CO_2[4]	CH_4	CO_2	CO_2e[5]	VOC[6]
	component leaks / compressor	scf/hr / component	scf/hr	scf/hr	scf/hr	lb/hr	lb/hr	ton/yr	ton/yr	ton/yr	ton/yr
Compressor Service											
Valve	113.00	14.84	1676.92	1575.24	8.77	66.68	1.02	292.05	4.45	7305.70	5.01
Connector	225.00	5.59	1257.75	1181.49	6.58	50.01	0.76	219.05	3.34	5479.53	3.75
Open-Ended Line	1.00	17.27	17.27	16.22	0.09	0.69	0.01	3.01	0.05	75.24	0.05
Pressure Relief Valve	8.00	39.66	317.28	298.04	1.66	12.62	0.19	55.26	0.84	1382.27	0.95
Meter	9.00	19.33	173.97	163.42	0.91	6.92	0.11	30.30	0.46	757.92	0.52
Non-Compressor Service											
Valve	0.60	6.42	3.85	3.62	0.02	0.15	0.00	0.67	0.01	16.78	0.01
Connector	0.82	5.71	4.68	4.40	0.02	0.19	0.00	0.82	0.01	20.40	0.01
Open-Ended Line	0.59	11.27	6.65	6.25	0.03	0.26	0.00	1.16	0.02	28.97	0.02
Pressure Relief Valve	0.12	2.01	0.24	0.23	0.00	0.01	0.000	0.04	0.001	1.05	0.00
Meter	0.01	2.93	0.03	0.03	0.000	0.001	0.0000	0.01	0.0001	0.13	0.00
							Total:	602.35	9.18	15067.99	10.32

1. Estimated component leaks per compressor based on measurements from the vendor.
2. Emission factors from 40 CFR 98 Subpart W Table W-3A.
3. CH_4 and CO_2 emission rates based on 93.94 vol% CH_4 and 0.0052 vol% CO_2 in natural gas
4. Conversion based on densities of GHG as provided in 40 CFR 98.233(v)
5. Based on 40 CFR 98 Subpart A Global Warming Potentials
6. Based on a 0.017 ratio of VOC to methane as calculated from gas composition.

Tanks Standing and Working Losses

AP-42 5th Edition, Chapter 7.1, June 2020

Tank Identification:	**IA - Pipeline Liquids Tank**
Facility:	**Ehernberg Compressor Station**
Location:	**Ehernberg, AZ**
Description:	**Pipeline Liquids Tank**

Conversions:
7.48 gal/ft3
5.614 ft3/bbl

Type of Tank: Vertical Fixed Roof Tank

Tank Dimensions:

Length of Horizontal Tank (Horizontal tanks only)	L		ft	*For tanks with rounded ends, use the overall length*	
Diameter of a vertical cross-section (Horizontal tanks only)	D		ft		
Effective Diameter (Horizontal tanks only)	D_E	0.00	ft	where D_E = Sq Rt (L*D/(pi/4))	Equation 1-14
Shell Height	H_s	10.0	ft		
Diameter (Vertical tanks only)	D	5.8	ft		
Tank Shell Radius	R_s	2.90	ft		
Max. Liquid Height	H_{LX}	10.0	ft		
Min. Liquid Height	H_{LN}	1.0	ft	*If unknown, use 1 for vertical tanks and 0 for horizontal tanks*	
Avg. Liquid Height	H_L	5.5	ft		
Volume	---	2,056	gal	*48.96*	*bbl*
Net Throughput	Q	15,000	gal/year	*357.20*	*bbl/yr*
Turnovers	N	8.4	per year		

$N = \sum H_{QI} / (H_{LX} - H_{LN})$ Equation 1-36

Where: $\sum H_{QI}$ = annual sum of increases in liquid level, ft/yr

If ΣH_{QI} is unknown, it can be estimated from pump utilization records. Over the course of a year, the sum of increases in liquid level, ΣHQI, and the sum of decreases in liquid level, ΣH_{QD}, will be approximately the same. Alternatively, ΣH_{QI} may be approximated as follows:

$\sum H_{QI} = (5.614Q) / ((pi/4)D^2)$ = 75.90 ft/yr Equation 1-37

For Horizontal Tanks, use D_E in place of D in Equation 1-37

Tank Insulation:		Uninsulated			
Is tank heated?		No			
Do Not Input Tank Liquid Temperature Below for Unheated Tank			°F	°R	°C
Heated - Avg Liquid Bulk Temperature	T_B			459.67	-17.78

Paint Characteristics:

Shell Color:	Aluminum	α_S = tank shell surface solar absorptance, dimensionless	
Shell Shade:	Mill finish, unpainted	0.1	*Table 7.1-6 Lookup*
Shell Condition:	New		
Roof Color:	Aluminum	α_R = tank roof surface solar absorptance, dimensionless	
Roof Shade:	Mill finish, unpainted	α_R = 0.1	*Table 7.1-6 Lookup*
Roof Condition:	New		

α = average tank surface solar absorptance, dimensionless
α = 0.1 *average of α_S and α_R*

If specific information is not available, a white shell and roof, with the paint in good condition, can be assumed to represent the most common or typical tank surface in use. If the tank roof and shell are painted a different color, α is determined from $\alpha = (\alpha_R + \alpha_S) / 2$; where α_R is the tank roof paint solar absorptance and α_S is the tank shell paint solar absorptance.

If aluminum is the base metal, rather than aluminum-colored paint, select "Mill finish, unpainted" as the Paint Shade.

Tanks Standing and Working Losses

AP-42 5th Edition, Chapter 7.1, June 2020

Tank Identification:	**IA - Pipeline Liquids Tank**
Facility:	**Ehernberg Compressor Station**
Location:	**Ehernberg, AZ**
Description:	**Pipeline Liquids Tank**

Conversions:
7.48 gal/ft3
5.614 ft3/bbl

Roof Characteristics:

Vertical Tanks Only:

Type of Roof: Dome

For Flat Roof:

Roof Outage (H_{RO}) = ft — For Flat Roof, $H_{RO} = 0$

For Cone Roof:

Tank Cone Roof Slope (S_R): 0.11 ft/ft — *If unknown, a standard value of 0.0625 is used.*

Tank Roof Height (H_R): 0.32 ft — where $H_R = S_R R_S$ — Equation 1-18

Cone Roof Outage (H_{RO}) = 0.106 ft — where $H_{RO} = (1/3)\ H_R$ — Equation 1-17

For Dome Roof:

Tank Dome Roof Radius (R_R): 5.8 ft — Equation 1-20 Note

*The value of the tank dome roof radius usually ranges from 0.8D - 1.2D, where D = 2*tank shell radius. If tank dome roof radius is unknown, the tank diameter is used in its place.*

Dome Tank Roof Height (H_R) = 0.78 ft — where $H_R = R_R - (R_R^2 - R_S^2)^{0.5}$ — Equation 1-20

Dome Roof Outage (H_{RO}) = 0.40 ft — where $H_{RO} = H_R[1/2 + 1/6(H_R/R_S)^2]$ — Equation 1-19

Horizontal Tanks Only:

Effective Height (H_E) = 0.00 ft — where $H_E = D*(pi/4)$ — Equation 1-15

Vapor Space Outage (H_{VO}) = 4.90 ft — where $H_{VO} = H_S - H_L + H_{RO}$ (vertical) or $H_{VO} = H_E/2$ (horizontal) — Equation 1-16

Meterorological Data:

Nearest City with Data: Dodge City, KS

Parameter	Symbol	Unit	Annual Average	Conversion to Rankine (°R)	
Daily Total Insolation Factor	I	Btu/ft^2-day	1512	NA	*Table 7.1-7 Lookup*
Daily Max Ambient Temp	T_{AX}	°F	67.6	527.3	*Table 7.1-7 Lookup*
Daily Min Ambient Temp	T_{AN}	°F	43	502.7	*Table 7.1-7 Lookup*
Daily Average Ambient Temp	T_{AA}	°F	55.3	515.0	Equation 1-30 where $T_{AA} = (T_{AX}+T_{AN})/2$
Average Atmospheric Pressure of Location	P_A	psia	13.39	NA	*Table 7.1-7 Lookup*

			UNINSULATED			
Parameter	Daily Ambient Temperature Range (°R)	Liquid Bulk Temperature (°R)	Daily Vapor Temperature Range (°R)	Daily Average Liquid Surface Temperature (°R)	Daily Maximum Liquid Surface Temperature (°R)	Daily Minimum Liquid Surface Temperature (°R)
Symbol	ΔT_A	T_B	ΔT_V	T_{LA}	T_{LX}	T_{LN}
Equation	$\Delta T_A = T_{AX} - T_{AN}$	$T_B = T_{AA} + 0.003*\alpha_s*I$	$\Delta TV = 0.7*\Delta TA + 0.02*\alpha*I$	$TLA = 0.4*TAA + 0.6*TB + 0.005*\alpha*I$	$TLX = TLA + 0.25*\Delta TV$	$TLN = TLA - 0.25*\Delta TV$
Reference	Equation 1-11	Equation 1-31	Equation 1-7	Equation 1-28	Figure 7.1-17	Figure 7.1-17
Value	24.6	515.4	20.2	516.0	521.1	510.9
Conversion to Farenheit (°F)	24.6	55.8	20.2	56.3	61.4	51.2
Conversion to Farenheit (°C)		13.2		13.5	16.3	10.7

Material Data:

Type: Other — *If type is "Other" - manually enter chemical name and parameters below:*

Mixture/Component: Benzene

Other Chemical Name: Pipeline Liquids — **Provide data**

Tanks Standing and Working Losses

AP-42 5th Edition, Chapter 7.1, June 2020

Tank Identification:	**IA - Pipeline Liquids Tank**
Facility:	**Ehernberg Compressor Station**
Location:	**Ehernberg, AZ**
Description:	**Pipeline Liquids Tank**

Conversions:
7.48 gal/ft3
5.614 ft3/bbl

Ethylbenzene
Heptane (n)
Toluene
Xylene (m) {1,3-dimethyl benzene}
Nonane (n)

How Many Chemicals in Mixture? 6

Name	CAS Registry No.	Vapor Molecular Weight (M_v)	Other M_v
Mixture	NA	Enter Other Molecular Weight	90.1

Table 7.1-2 (Petroleum) and 7.1-3 (Organic) Lookup; manual entry for "Other"

	Vapor Pressure Equation Constants		
	A	B	C
Name	(Dimensionless)	(°C)	(°C)
Benzene	6.906	1211	220.79
Ethylbenzene	6.95	1419.3	212.61
Heptane (n)	6.903	1268.6	216.95
Toluene	7.017	1377.6	222.64
Xylene (m) {1,3-dimethyl benzene}	7.009	1462.3	215.11
Nonane (n)	6.7	1492.9	217.26

Table 7.1-2 (Petroleum) and 7.1-3 (Organic) Lookup; manual entry for "Other"

Tanks Standing and Working Losses

AP-42 5th Edition, Chapter 7.1, June 2020

Tank Identification:	**IA - Pipeline Liquids Tank**
Facility:	**Ehernberg Compressor Station**
Location:	**Ehernberg, AZ**
Description:	**Pipeline Liquids Tank**

Conversions:
7.48 gal/ft3
5.614 ft3/bbl

Determination of Site-Specific Vapor Pressure:

Parameter	Symbol	Equation	Value (psia)	Conversion to psia	
Vapor Pressure at Avg. Liquid Surface Temperature	P_{VA}	PVA = 10^[A - (B/(TLA + C))]	0.236	0.236	Equation 1-26 (organic) or Equation 1-25 (petroleum)
Vapor Pressure at Max. Liquid Surface Temperature	P_{VX}	PVX = 10^[A - (B/(TLX + C))]	0.274	0.274	Equation 1-26 (organic) or Equation 1-25 (petroleum)
Vapor Pressure at Min. Liquid Surface Temperature	P_{VN}	PVN = 10^[A - (B/(TLN + C))]	0.202	0.202	Equation 1-26 (organic) or Equation 1-25 (petroleum)
Pressure of Vapor Space at Normal Operating Conditions	P_I	Actual Guage Pressure	0.000		Equation 1-41 Notes

Determination of Site-Specific Daily Vapor Pressure Range:

Parameter	Symbol	Equation	Value	
Daily Vapor Pressure Range (psia)	ΔP_V	$\Delta P_V = P_{VX} - P_{VN}$	0.072	Equation 1-9

Breather Vent Settings:

Parameter	Symbol	Unit	Value	
Breather Vent Pressure Setting	P_{BP}	psig	0.03	
Breather Vent Vacuum Setting	P_{BV}	psig	-0.03	
Breather Vent Pressure Setting	$\Delta P_B = P_{BP} - P_{BV}$	psig	0.06	Equation 1-10

If specific information on the breather vent pressure setting and vacuum setting is not available, assume 0.03 psig for P_{BP} and -0.03 psig for P_{BV} as typical values. If the fixed roof tank is of bolted or riveted construction in which the roof or shell plates are not vapor tight, assume $\Delta P_B = 0$, even if a breather vent is used.

Parameter	Symbol	Unit	Equation	Value	
Average Vapor Temperature	T_v	°R	TV = 0.7*TAA + 0.3*TB + 0.009*α*I	516.5	Equation 1-33 (uninsulated), Equation 1-34 (partially insultated), or $T_V=T_B$ (fully insulated)

Vapor Space Expansion Factor:

Is true vapor pressure less than 0.1 psia? NO

Are the breather vent settings NOT higher than the typical range of ±0.03 psig? YES

Equation to use: EQUATION 1-5

Parameter	Symbol	Equation	Value	
Vapor Space Expansion Factor (dimensionless)	K_E	$K_E = 0.0018*\Delta T_V$	0.036	Equation 1-12
Vapor Space Expansion Factor (dimensionless)	K_E	$K_E = (\Delta T_V/T_{LA}) + (\Delta P_V - \Delta P_B)/(P_A-P_{VA})$	0.040	Equation 1-5
Vapor Space Expansion Factor used	K_E	KE = (ΔTV/TLA) + (ΔPV - ΔPB)/(PA-PVA)	0.040	Equation 1-5

Note: If K_E is less than zero, standing storage losses will not occur.

Is $K_E < 0$? NO

Tanks Standing and Working Losses

AP-42 5th Edition, Chapter 7.1, June 2020

Tank Identification:	**IA - Pipeline Liquids Tank**
Facility:	**Ehernberg Compressor Station**
Location:	**Ehernberg, AZ**
Description:	**Pipeline Liquids Tank**

Conversions:
7.48 gal/ft3
5.614 ft3/bbl

Emissions

$L_T = L_S + L_W$ Equation 1-1

where:

L_T = total losses, lb/yr

L_S = standing storage losses, lb/yr, see Equation 1-2

L_W = working losses, lb/hr, see Equation 1-35

Standing Storage Losses (lb/yr)	Working Losses (lb/yr)	Total Losses (lb/yr)	Total Losses (tpy)
6.86	**7.69**	**14.55**	**0.0073**

Standing Storage Losses:

Standing storage loss, L_S, refers to the loss of stock vapors as a result of tank vapor space breathing.

$L_S = 365 * V_V * W_V * K_E * K_S$ Equation 1-2

Parameter	Tank Vapor Space Volume	Stock Vapor Density	Vapor Space Expansion Factor	Vented Vapor Saturation Factor	Standing Storage Loss
Symbol	V_V	W_V	K_E	K_S	L_S
Unit	ft^3	lb/ft^3	dimensionless	dimensionless	lb/yr
Equation	VV = (π/4)*(D2)*HVO	$W_V = (M_V * P_{VA}) / (R * T_V)$	KE = (ΔTV/TLA) + (ΔPV - ΔPB)/(PA-PVA)	$K_S = 1 / (1 + 0.053 * P_{VA} * H_{VO})$	$L_S = 365 * V_V * W_V * K_E * K_S$
Reference	Equation 1-3	Equation 1-22	Equation 1-5	Equation 1-21	Equation 1-2
Value	129.40	0.004	0.040	0.942	6.855
Notes		R = the ideal gas constant, 10.731 psia ft3/lb-mole °R	If K_E < zero, standing storage losses will not occur.	0.053 = constant (psi-ft)$^{-1}$	365 = 365 days/yr

Working Loss:

Working loss, L_W, refers to the loss of stock vapors as a result of tank filling or emptying operations.

$L_W = V_Q * K_N * K_P * W_v * K_B$ Equation 1-35

Parameter	Net Working Loss Throughput	Working Loss Turnover (Saturation) Factor	Working Loss Product Factor	Vent Setting Correction Factor	Working Loss
Symbol	V_Q	K_N	K_P	K_B	L_W
Unit	ft3/yr	dimensionless	dimensionless	dimensionless	lb/yr
Equation	VQ = (∑HQI) (pi/4)D2	KN = 1 when N<36	KP=0.75 for petroleum	Equation 1-35 Notes	$L_W = V_Q * K_N * K_P * W_v * K_B$
Reference	Equation 1-38	Equation 1-35 Notes	Equation 1-35 Notes	Equation 1-35 Notes	Equation 1-35
Value	2005	1.00	1.00	1	7.692

APPENDIX C

Permit Strikeout

CLASS I AIR QUALITY PERMIT

PERMIT 79880

PERMITTEE:	**North Baja Pipeline, LLC**
FACILITY:	**Ehrenberg Compressor Station**
PLACE ID:	**15267**
DATE ISSUED:	**June 30, 2020**
EXPIRY DATE:	**June 29, 2025**

SUMMARY

This Class I air quality permit is issued to North Baja Pipeline LLC (NBP), the Permittee, for the continued operation of the Ehrenberg Compressor Station. The facility is located at Ehrenberg, La Paz County, Arizona. This permit supersedes the previous Class II Permit No. 65988.

The Ehrenberg Compressor Station transports natural gas along the pipeline by receiving low-pressure inlet natural gas and compressing the stream to increase the pressure and maintain the downstream flow. The Ehrenberg Compressor Station has the ability to operate 7 days per week, 24 hours per day. The primary equipment consists of 3 gas-fired, centrifugal turbines. Two existing turbines are rated at 7,700 hp and one new is rated at 29,626 hp. The facility also has a 1,085 hp standby generator driven by a natural gas-fired reciprocating internal combustion engine and one fuel gas heater rated at 0.88 MMBtu/hr.

The facility has the potential to emit (PTE), without the controls or operating limitations specified in this permit, criteria pollutant emissions in excess of major source thresholds. Therefore, a Class I permit is required under Arizona Administrative Code (A.A.C.) R18-2-302.B.1.a.

This permit is issued in accordance with Arizona Revised Statutes (ARS) 49-426. It contains requirements from Title 18, Chapter 2 of the A.A.C. and Title 40 of the Code of Federal Regulations. All definitions, terms, and Conditions used in this permit conform to those in the Arizona Administrative Code R18-2-101 et. seq. (A.A.C.) and Title 40 of the Code of Federal Regulations (CFR), except as otherwise defined in this permit.

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Table of Contents

ATTACHMENT "A": GENERAL PROVISIONS

I. PERMIT EXPIRATION AND RENEWAL

A. This permit is valid for a period of five (5) years from the date of issuance.
[ARS § 49-426.F, A.A.C. R18-2-306.A.1]

B. The Permittee shall submit an application for renewal of this permit at least six (6) months, but not more than eighteen (18) months, prior to the date of permit expiration.
[A.A.C. R18-2-304.D.2]

II. COMPLIANCE WITH PERMIT CONDITIONS

A. The Permittee shall comply with all Conditions of this permit including all applicable requirements of the Arizona Revised Statutes (A.R.S.) Title 49, Chapter 3, and the air quality rules under Title 18, Chapter 2 of the Arizona Administrative Code. Any permit noncompliance is grounds for enforcement action; for permit termination, revocation and reissuance, revision; or for denial of a permit renewal application. In addition, noncompliance with any federally enforceable requirement constitutes a violation of the Clean Air Act.
[A.A.C. R18-2-306.A.8.a]

B. It shall not be a defense for a Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the Conditions of this permit.
[A.A.C. R18-2-306.A.8.b]

III. PERMIT REVISION, REOPENING, REVOCATION AND REISSUANCE, OR TERMINATION FOR CAUSE

A. The permit may be revised, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a permit revision, revocation and reissuance, termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit Condition.
[A.A.C. R18-2-306.A.8.c]

B. The permit shall be reopened and revised under any of the following circumstances:

1. Additional applicable requirements under the Clean Air Act become applicable to the Class I source. Such a reopening shall only occur if there are three or more years remaining in the permit term. The reopening shall be completed no later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of it terms and Conditions has been extended pursuant to A.A.C. R18-2-322.B. Any permit revision required pursuant to this subparagraph shall comply with the provisions in A.A.C. R18-2-322 for permit renewal and shall reset the five-year permit term;
[A.A.C. R18-2-321.A.1.a]

2. Additional requirements, including excess emissions requirements, become applicable to an affected source under the acid rain program. Upon approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into the Class I permit;

[A.A.C. R18-2-321.A.1.b]

3. The Director or the Administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or Conditions of the permit; and

[A.A.C. R18-2-321.A.1.c]

4. The Director or the Administrator determines that the permit needs to be revised or revoked to assure compliance with the applicable requirements.

[A.A.C. R18-2-321.A.1.d]

C. Proceedings to reopen and issue a permit, including appeal of any final action relating to a permit reopening, shall follow the same procedures as apply to initial permit issuance and shall, except for reopenings under Condition III.B.1 above, affect only those parts of the permit for which cause to reopen exists. Such reopening shall be made as expeditiously as practicable. Permit reopenings for reasons other than those stated in Condition III.B.1 above shall not result in a resetting of the five-year permit term.

[A.A.C. R18-2-321.A.2]

IV. POSTING OF PERMIT

A. The Permittee shall post this permit or a certificate of permit issuance at the facility in such a manner as to be clearly visible and accessible. All equipment covered by this permit shall be clearly marked with one of the following:

[A.A.C. R18-2-315.A]

1. Current permit number; or

2. Serial number or other equipment identification number (equipment ID number) that is also listed in the permit to identify that piece of equipment.

B. A copy of the complete permit shall be kept on site.

[A.A.C. R18-2-315.B]

V. FEE PAYMENT

The Permittee shall pay fees to the Director pursuant to ARS § 49-426(E) and A.A.C. R18-2-326.

[A.A.C. R18-2-306.A.9 and -326]

VI. ANNUAL EMISSION INVENTORY QUESTIONNAIRE

A. The Permittee shall complete and submit to the Director an annual emissions inventory questionnaire. The questionnaire is due by March 31st or ninety (90) days after the Director makes the inventory form available each year, whichever occurs later, and shall include emission information for the previous calendar year.

[A.A.C. R18-2-327.A]

B. The questionnaire shall be on a form provided by the Director and shall include the information required by A.A.C. R18-2-327.B.

[A.A.C. R18-2-327.B]

VII. COMPLIANCE CERTIFICATION

A. The Permittee shall submit a compliance certification to the Director semiannually, which describes the compliance status of the source with respect to each permit Condition. The first certification shall be submitted no later than May 15th, and shall report the compliance status of the source during the period between October 1st of the previous year and March 31st of the current year. The second certification shall be submitted no later than November 15th, and shall report the compliance status of the source during the period between April 1st and September 30th of the current year.

[A.A.C. R18-2-309.2.a]

B. The compliance certifications shall include the following:

1. Identification of each term or Condition of the permit that is the basis of the certification;

[A.A.C. R18-2-309.2.c.i]

2. Identification of the methods or other means used by the Permittee for determining the compliance status with each term and Condition during the certification period,

[A.A.C. R18-2-309.2c.ii]

3. Status of compliance with the terms and Conditions of the permit for the period covered by the certification, including whether compliance during the period was continuous or intermittent. The certifications shall identify each deviation (including any deviations reported pursuant to Condition XI.B of this Attachment) during the period covered by the certification and take it into account for consideration in the compliance certification;

[A.A.C. R18-2-309.2.c.iii]

4. For emission units subject to 40 CFR Part 64, the certification shall also identify as possible exceptions to compliance any period during which compliance is required and in which an excursion or exceedance defined under 40 CFR Part 64 occurred;

[A.A.C. R18-2-309.2.c.iii]

5. Other facts the Director may require to determine the compliance status of the source.

[A.A.C. R18-2-309.2.c.iv]

C. A copy of all compliance certifications shall also be submitted to the EPA Administrator.

[A.A.C. R18-2-309.2.d]

D. If any outstanding compliance schedule exists, a progress report shall be submitted with the semi-annual compliance certifications required in Condition VII.A above. The progress reports shall contain the information required by A.A.C R18-2-309.5.d.

[A.A.C. R18-2-309.5.d]

VIII. CERTIFICATION OF TRUTH, ACCURACY AND COMPLETENESS

Any document required to be submitted by this permit, including reports, shall contain a certification by a responsible official of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

[A.A.C. R18-2-309.3]

IX. INSPECTION AND ENTRY

Upon presentation of proper credentials, the Permittee shall allow the Director or the authorized representative of the Director to:

A. Enter upon the Permittee's premises where a source is located, emissions-related activity is conducted, or where records are required to be kept under the Conditions of the permit;

[A.A.C. R18-2-309.4.a]

B. Have access to and copy, at reasonable times, any records that are required to be kept under the Conditions of the permit;

[A.A.C. R18-2-309.4.b]

C. Inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit;

[A.A.C. R18-2-309.4.c]

D. Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with the permit or other applicable requirements; and

[A.A.C. R18-2-309.4.d]

E. Record any inspection by use of written, electronic, magnetic and photographic media.

[A.A.C. R18-2-309.4.e]

X. ACCIDENTAL RELEASE PROGRAM

If this source becomes subject to the provisions of 40 CFR Part 68, then the Permittee shall comply with these provisions according to the time line specified in 40 CFR Part 68.

[40 CFR Part 68]

XI. EXCESS EMISSIONS, PERMIT DEVIATIONS, AND EMERGENCY REPORTING

A. Excess Emissions Reporting

[A.A.C. R18-2-310.01.A, B, and C]

1. Excess emissions shall be reported as follows:

   a. The Permittee shall report to the Director any emissions in excess of the limits established by this permit. Such report shall be in two parts as specified below:

(1) Notification by telephone or facsimile within 24 hours of the time when the Permittee first learned of the occurrence of excess emissions including all available information from Condition XI.A.1.b below.

(2) Detailed written notification by submission of an excess emissions report within 72 hours of the notification pursuant to Condition XI.A.1.a(1) above.

[A.A.C. R18-2-310.01.A]

b. The report shall contain the following information:

(1) Identity of each stack or other emission point where the excess emissions occurred;

[A.A.C. R18-2-310.01.B.1]

(2) Magnitude of the excess emissions expressed in the units of the applicable emission limitation and the operating data and calculations used in determining the magnitude of the excess emissions;

[A.A.C. R18-2-310.01.B.2]

(3) Time and duration, or expected duration, of the excess emissions;

[A.A.C. R18-2-310.01.B.3]

(4) Identity of the equipment from which the excess emissions emanated;

[A.A.C. R18-2-310.01.B.4]

(5) Nature and cause of such emissions;

[A.A.C. R18-2-310.01.B.5]

(6) If the excess emissions were the result of a malfunction, steps taken to remedy the malfunction and the steps taken or planned to prevent the recurrence of such malfunctions;

[A.A.C. R18-2-310.01.B.6]

(7) Steps that were or are being taken to limit the excess emissions; and

[A.A.C. R18-2-310.01.B.7]

(8) If the excess emissions resulted from startup or malfunction, the report shall contain a list of the steps taken to comply with any permit procedures governing source operation during periods of startup or malfunction.

[A.A.C. R18-2-310.01.B.8]

2. In the case of continuous or recurring excess emissions, the notification requirements shall be satisfied if the source provides the required notification after excess emissions are first detected and includes in such notification an estimate of the time the excess emissions will continue. Excess emissions occurring after the

estimated time period, or changes in the nature of the emissions as originally reported, shall require additional notification pursuant to Condition XI.A.1 above.
[A.A.C. R18-2-310.01.C]

B. Permit Deviations Reporting

The Permittee shall promptly report deviations from permit requirements, including those attributable to upset Conditions as defined in the permit, the probable cause of such deviations, and any corrective actions or preventive measures taken. Where the applicable requirement contains a definition of prompt or otherwise specifies a timeframe for reporting deviations, that definition or timeframe shall govern. Where the applicable requirement does not address the timeframe for reporting deviations, the Permittee shall submit reports of deviations according to the following schedule:

1. Notice that complies with Condition XI.A.1 above is prompt for deviations that constitute excess emissions;
[A.A.C. R18-2-306.A.5.b.i]

2. Except as provided in Conditions XI.B.1 above, prompt notification of all other types of deviations shall be every 6-months, concurrent with the semi-annual compliance certifications required in Section VII, and can be submitted via the "Annual/Semiannual Deviation Monitoring Report" form available on the Arizona Department of Environmental Quality Website.
[A.A.C. R18-2-306.A.5.b.ii]

C. Emergency Provision

1. An "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, that require immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.
[A.A.C. R18-2-306.E.1]

2. An emergency constitutes an affirmative defense to an action brought for noncompliance with technology-based emission limitations if Condition XI.C.3 below is met.
[A.A.C. R18-2-306.E.2]

3. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:
[A.A.C. R18-2-306.E.3]

   a. An emergency occurred and that the Permittee can identify the cause(s) of the emergency;
   [A.A.C. R18-2-306.E.3.a]

b. The permitted facility was being properly operated at the time of the emergency;

[A.A.C. R18-2-306.E.3.b]

c. During the period of the emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements in the permit; and

[A.A.C. R18-2-306.E.3.c]

d. The Permittee submitted notice of the emergency to the Director by certified mail, facsimile, or hand delivery within two working days of the time when emission limitations were exceeded due to the emergency. This notice shall contain a description of the emergency, any steps taken to mitigate emissions, and corrective action taken.

[A.A.C. R18-2-306.E.3.d]

4. In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.

[A.A.C. R18-2-306.E.4]

5. This provision is in addition to any emergency or upset provision contained in any applicable requirement.

[A.A.C. R18-2-306.E.5]

D. Compliance Schedule

For any excess emission or permit deviation that cannot be corrected within 72 hours, the Permittee is required to submit a compliance schedule to the Director within 21 days of such occurrence. The compliance schedule shall include a schedule of remedial measures, including an enforceable sequence of actions with milestones, leading to compliance with the permit terms or Conditions that have been violated.

[ARS § 49-426.I.3]

E. Affirmative Defenses for Excess Emissions Due to Malfunctions, Startup, and Shutdown

1. Applicability

A.A.C. R18-2-310 establishes affirmative defenses for certain emissions in excess of an emission standard or limitation and applies to all emission standards or limitations except for standards or limitations:

a. Promulgated pursuant to Sections 111 or 112 of the Act;

[A.A.C. R18-2-310.A.1]

b. Promulgated pursuant to Titles IV or VI of the Clean Air Act;

[A.A.C. R18-2-310.A.2]

c. Contained in any Prevention of Significant Deterioration (PSD) or New Source Review (NSR) permit issued by the U.S. EPA;

[A.A.C. R18-2-310.A.3]

d. Contained in A.A.C. R18-2-715.F; or

[A.A.C. R18-2-310.A.4]

e. Included in a permit to meet the requirements of A.A.C. R18-2-406.A.5.

[A.A.C. R18-2-310.A.5]

2. Affirmative Defense for Malfunctions

Emissions in excess of an applicable emission limitation due to malfunction shall constitute a violation. When emissions in excess of an applicable emission limitation are due to a malfunction, the Permittee has an affirmative defense to a civil or administrative enforcement proceeding based on that violation, other than a judicial action seeking injunctive relief, if the Permittee has complied with the reporting requirements of A.A.C. R18-2-310.01 and has demonstrated all of the following:

[A.A.C. R18-2-310.B]

a. The excess emissions resulted from a sudden and unavoidable breakdown of process equipment or air pollution control equipment beyond the reasonable control of the Permittee;

[A.A.C. R18-2-310.B.1]

b. The air pollution control equipment, process equipment, or processes were at all times maintained and operated in a manner consistent with good practice for minimizing emissions;

[A.A.C. R18-2-310.B.2]

c. If repairs were required, the repairs were made in an expeditious fashion when the applicable emission limitations were being exceeded. Off-shift labor and overtime were utilized where practicable to ensure that the repairs were made as expeditiously as possible. If off-shift labor and overtime were not utilized, the Permittee satisfactorily demonstrated that the measures were impracticable;

[A.A.C. R18-2-310.B.3]

d. The amount and duration of the excess emissions (including any bypass operation) were minimized to the maximum extent practicable during periods of such emissions;

[A.A.C. R18-2-310.B.4]

e. All reasonable steps were taken to minimize the impact of the excess emissions on ambient air quality;

[A.A.C. R18-2-310.B.5]

f. The excess emissions were not part of a recurring pattern indicative of inadequate design, operation, or maintenance;

[A.A.C. R18-2-310.B.6]

g. During the period of excess emissions there were no exceedances of the relevant ambient air quality standards established in Title 18, Chapter 2,

Article 2 of the Arizona Administrative Code that could be attributed to the emitting source;

[A.A.C. R18-2-310.B.7]

h. The excess emissions did not stem from any activity or event that could have been foreseen and avoided, or planned, and could not have been avoided by better operations and maintenance practices;

[A.A.C. R18-2-310.B.8]

i. All emissions monitoring systems were kept in operation if at all practicable; and

[A.A.C. R18-2-310.B.9]

j. The Permittee's actions in response to the excess emissions were documented by contemporaneous records.

[A.A.C. R18-2-310.B.10]

3. Affirmative Defense for Startup and Shutdown

a. Except as provided in Condition XI.E.3.b below, and unless otherwise provided for in the applicable requirement, emissions in excess of an applicable emission limitation due to startup and shutdown shall constitute a violation. When emissions in excess of an applicable emission limitation are due to startup and shutdown, the Permittee has an affirmative defense to a civil or administrative enforcement proceeding based on that violation, other than a judicial action seeking injunctive relief, if the Permittee has complied with the reporting requirements of A.A.C. R18-2-310.01 and has demonstrated all of the following:

[A.A.C. R18-2-310.C.1]

(1) The excess emissions could not have been prevented through careful and prudent planning and design;

[A.A.C. R18-2-310.C.1.a]

(2) If the excess emissions were the result of a bypass of control equipment, the bypass was unavoidable to prevent loss of life, personal injury, or severe damage to air pollution control equipment, production equipment, or other property;

[A.A.C. R18-2-310.C.1.b]

(3) The air pollution control equipment, process equipment, or processes were at all times maintained and operated in a manner consistent with good practice for minimizing emissions;

[A.A.C. R18-2-310.C.1.c]

(4) The amount and duration of the excess emissions (including any bypass operation) were minimized to the maximum extent practicable during periods of such emissions;

[A.A.C. R18-2-310.C.1.d]

(5) All reasonable steps were taken to minimize the impact of the excess emissions on ambient air quality;

[A.A.C. R18-2-310.C.1.e]

(6) During the period of excess emissions there were no exceedances of the relevant ambient air quality standards established in Title 18, Chapter 2, Article 2 of the Arizona Administrative Code that could be attributed to the emitting source;

[A.A.C. R18-2-310.C.1.f]

(7) All emissions monitoring systems were kept in operation if at all practicable; and

[A.A.C. R18-2-310.C.1.g]

(8) Contemporaneous records documented the Permittee's actions in response to the excess emissions.

[A.A.C. R18-2-310.C.1.h]

b. If excess emissions occur due to a malfunction during routine startup and shutdown, then those instances shall be treated as other malfunctions subject to Condition XI.E.2 above.

[A.A.C. R18-2-310.C.2]

4. Affirmative Defense for Malfunctions during Scheduled Maintenance

If excess emissions occur due to a malfunction during scheduled maintenance, then those instances will be treated as other malfunctions subject to Condition XI.E.2 above.

[A.A.C. R18-2-310.D]

5. Demonstration of Reasonable and Practicable Measures

For an affirmative defense under Condition XI.E.2 or XI.E.3, the Permittee shall demonstrate, through submission of the data and information required by this Condition XI.E and Condition XI.A.1 above, that all reasonable and practicable measures within the Permittee's control were implemented to prevent the occurrence of the excess emissions.

[A.A.C. R18-2-310.E]

XII. RECORDKEEPING REQUIREMENTS

A. The Permittee shall keep records of all required monitoring information including, but not limited to, the following:

[A.A.C. R18-2-306.A.4.a]

1. The date, place as defined in the permit, and time of sampling or measurements;

[A.A.C. R18-2-306.A.4.a.i]

2. The date(s) any analyses were performed;

[A.A.C. R18-2-306.A.4.a.ii]

3. The name of the company or entity that performed the analyses;

[A.A.C. R18-2-306.A.4.a.iii]

4. A description of the analytical techniques or methods used;
[A.A.C. R18-2-306.A.4.a.iv]

5. The results of analyses; and
[A.A.C. R18-2-306.A.4.a.v]

6. The operating Conditions as existing at the time of sampling or measurement.
[A.A.C. R18-2-306.A.4.a.vi]

B. The Permittee shall retain records of all required monitoring data and support information for a period of at least five (5) years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings or other data recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.
[A.A.C. R18-2-306.A.4.b]

XIII. REPORTING REQUIREMENTS

The Permittee shall submit the following reports:

A. Compliance certifications in accordance with Section VII above.
[A.A.C. R18-2-306.A.5.a]

B. Excess emission; permit deviation, and emergency reports in accordance with Section XI above.
[A.A.C. R18-2-306.A.5.b]

C. Other reports required by any Condition of Attachment "B".

XIV. DUTY TO PROVIDE INFORMATION

A. The Permittee shall furnish to the Director, within a reasonable time, any information that the Director may request in writing to determine whether cause exists for revising, revoking and reissuing, or terminating the permit, or to determine compliance with the permit. Upon request, the Permittee shall also furnish to the Director copies of records required to be kept by the permit. For information claimed to be confidential, the Permittee shall furnish an additional copy of such records directly to the Administrator along with a claim of confidentiality.
[A.A.C. R18-2-304.G and -306.A.8.e]

B. If the Permittee has failed to submit any relevant facts or has submitted incorrect information in the permit application, the Permittee shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrected information.
[A.A.C. R18-2-304.H]

XV. PERMIT AMENDMENT OR REVISION

The Permittee shall apply for a permit amendment or revision for changes to the facility which do not qualify for a facility change without revision under Section XVI below, as follows:

A. Administrative Permit Amendment;

[A.A.C. R18-2-318]

B. Minor Permit Revision; and

[A.A.C. R18-2-319]

C. Significant Permit Revision

[A.A.C. R18-2-320]

D. The applicability and requirements for such action are defined in the above referenced regulations.

XVI. FACILITY CHANGE WITHOUT A PERMIT REVISION

A. The Permittee may make changes that contravene an express permit term without a permit revision if all of the following apply:

1. The changes are not modifications under any provision of Title I of the Act or under ARS § 49-401.01(24);

[A.A.C. R18-2-317.A.1]

2. The changes do not exceed the emissions allowable under the permit whether expressed therein as a rate of emissions or in terms of total emissions;

[A.A.C. R18-2-317.A.2]

3. The changes do not violate any applicable requirements or trigger any additional applicable requirements;

[A.A.C. R18-2-317.A.3]

4. The changes satisfy all requirements for a minor permit revision under A.A.C. R18-2-319.A;

[A.A.C. R18-2-317.A.4]

5. The changes do not contravene federally enforceable permit terms and Conditions that are monitoring (including test methods), record keeping, reporting, or compliance certification requirements; and

[A.A.C. R18-2-317.A.5]

6. The changes do not constitute a minor NSR modification.

[A.A.C. R18-2-317.A.6]

B. The substitution of an item of process or pollution control equipment for an identical or substantially similar item of process or pollution control equipment shall qualify as a change that does not require a permit revision, if it meets all of the requirements of Conditions XVI.A, C, and D of this Attachment.

[A.A.C. R18-2-317.B]

C. For each change under Conditions XVI.A and XVI.B above, a written notice by certified mail or hand delivery shall be received by the Director and the Administrator a minimum of 7 working days in advance of the change. Notifications of changes associated with emergency Conditions, such as malfunctions necessitating the replacement of equipment, may be provided less than 7 working days in advance of the change, but must be provided as far in advance of the change as possible or, if advance notification is not practicable, as soon after the change as possible.

[A.A.C. R18-2-317.D]

D. Each notification shall include:

1. When the proposed change will occur;

[A.A.C. R18-2-317.E.1]

2. A description of the change;

[A.A.C. R18-2-317.E.2]

3. Any change in emissions of regulated air pollutants; and

[A.A.C. R18-2-317.E.3]

4. Any permit term or Condition that is no longer applicable as a result of the change.

[A.A.C. R18-2-317.E.7]

E. The permit shield described in A.A.C. R18-2-325 shall not apply to any change made under this Section XVI.

[A.A.C. R18-2-317.F]

F. Except as otherwise provided for in the permit, making a change from one alternative operating scenario to another as provided under A.A.C. R18-2-306.A.11 shall not require any prior notice under this Section XVI.

[A.A.C. R18-2-317.G]

G. Notwithstanding any other part of Section XVI, the Director may require a permit to be revised for any change that, when considered together with any other changes submitted by the same source under Section XVI over the term of the permit, do not satisfy Condition XVI.A above.

[A.A.C. R18-2-317.H]

XVII. TESTING REQUIREMENTS

A. Except as provided in Condition XVII.F below, the Permittee shall conduct performance tests as specified in the permit and at such other times as may be required by the Director.

[A.A.C. R18-2-312.A]

B. Operational Conditions during Performance Testing

Performance tests shall be conducted under such Conditions as the Director shall specify to the plant operator based on representative performance of the source. The Permittee shall make available to the Director such records as may be necessary to determine the Conditions of the performance tests. Operations during periods of start-up, shutdown, and

malfunction (as defined in A.A.C. R18-2-101) shall not constitute representative Conditions of performance tests unless otherwise specified in the applicable standard.

[A.A.C. R18-2-312.C]

C. Performance Tests shall be conducted and data reduced in accordance with the test methods and procedures contained in the Arizona Testing Manual unless modified by the Director pursuant to A.A.C. R18-2-312.B.

[A.A.C. R18-2-312.B]

D. Test Plan

At least 14 working days prior to performing a test, the Permittee shall submit a test plan to the Director, which must include the following, in addition to all other applicable requirements, as identified in the Arizona Testing Manual:

[A.A.C. R18-2-312.B]

1. Test duration;

2. Test location(s);

3. Test method(s); and

4. Source operation and other parameters that may affect test results.

E. Stack Sampling Facilities

The Permittee shall provide, or cause to be provided, performance testing facilities as follows:

[A.A.C. R18-2-312.E]

1. Sampling ports adequate for test methods applicable to the facility;

2. Safe sampling platform(s);

3. Safe access to sampling platform(s); and

4. Utilities for sampling and testing equipment.

F. Interpretation of Final Results

Each performance test shall consist of three separate runs using the applicable test method. Each run shall be conducted for the time and under the Conditions specified in the applicable standard. For the purpose of determining compliance with an applicable standard, the arithmetic mean of the results of the three runs shall apply. In the event that a sample is accidentally lost or Conditions occur in which one of the three runs is required to be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological Conditions, or other circumstances beyond the Permittee's control, compliance may, upon the Director's approval, be determined using the arithmetic mean of the results of the other two runs. If the Director or the Director's designee is present, tests may only be stopped with the Director's or such designee's

approval. If the Director or the Director's designee is not present, tests may only be stopped for good cause. Good cause includes: forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological Conditions, or other circumstances beyond the Permittee's control. Termination of any test without good cause after the first run is commenced shall constitute a failure of the test. Supporting documentation, which demonstrates good cause, must be submitted.

[A.A.C. R18-2-306.A.3.c and A.A.C. R18-2-312.F]

G. Report of Final Test Results

A written report of the results of performance tests conducted pursuant to 40 CFR 63, shall be submitted to the Director within 60 days after the test is performed. A written report of the results of all other performance tests shall be submitted within 4 weeks after the completion of the testing as specified in the Arizona Testing Manual. All performance testing reports shall be submitted in accordance with the Arizona Testing Manual and A.A.C. R18-2-312.A.

[A.A.C. R18-2-312.A and B]

H. Extension of Performance Test Deadline

For performance testing required under Condition XVII.A above, the Permittee may request an extension to a performance test deadline due to a force majeure event as follows:

[A.A.C. R18-2-312.J]

1. If a force majeure event is about to occur, occurs, or has occurred for which the Permittee intends to assert a claim of force majeure, the Permittee shall notify the Director in writing as soon as practicable following the date the Permittee first knew, or through due diligence should have known that the event may cause or caused a delay in testing beyond the regulatory deadline. The notification must occur before the performance test deadline unless the initial force majeure or a subsequent force majeure event delays the notice, and in such cases, the notification shall be given as soon as practicable.

   [A.A.C. R18-2-312.J.1]

2. The Permittee shall provide to the Director a written description of the force majeure event and a rationale for attributing the delay in testing beyond the regulatory deadline to the force majeure; describe the measures taken or to be taken to minimize the delay; and identify a date by which the Permittee proposes to conduct the performance test. The performance test shall be conducted as soon as practicable after the force majeure event occurs.

   [A.A.C. R18-2-312.J.2]

3. The decision as to whether or not to grant an extension to the performance test deadline is solely within the discretion of the Director. The Director shall notify the Permittee in writing of approval or disapproval of the request for an extension as soon as practicable.

   [A.A.C. R18-2-312.J.3]

4. Until an extension of the performance test deadline has been approved by the Director under Conditions XVII.H.1, 2, and 3 above, the Permittee remains subject to the requirements of Section XVII.

[A.A.C. R18-2-312.J.4]

5. For purposes of this Section XVII, a "force majeure event" means an event that will be or has been caused by circumstances beyond the control of the Permittee, its contractors, or any entity controlled by the Permittee that prevents it from complying with the regulatory requirement to conduct performance tests within the specified timeframe despite the Permittee's best efforts to fulfill the obligation. Examples of such events are acts of nature, acts of war or terrorism, or equipment failure or safety hazard beyond the control of the Permittee.

[A.A.C. R18-2-312.J.5]

XVIII. PROPERTY RIGHTS

This permit does not convey any property rights of any sort, or any exclusive privilege.

[A.A.C. R18-2-306.A.8.d]

XIX. SEVERABILITY CLAUSE

The provisions of this permit are severable. In the event of a challenge to any portion of this permit, or if any portion of this permit is held invalid, the remaining permit Conditions remain valid and in force.

[A.A.C. R18-2-306.A.7]

XX. PERMIT SHIELD

Compliance with the Conditions of this permit shall be deemed compliance with all applicable requirements identified in the portions of this permit subtitled "Permit Shield". The permit shield shall not apply to minor revisions pursuant to Condition XV.B of this Attachment and any facility changes without a permit revision pursuant to Condition XVI of this Attachment.

[A.A.C. R18-2-317.F, - 320, and -325]

XXI. PROTECTION OF STRATOSPHERIC OZONE

If this source becomes subject to the provisions of 40 CFR Part 82, then the Permittee shall comply with these provisions accordingly.

[40 CFR Part 82]

XXII. APPLICABILITY OF NSPS/NESHAP GENERAL PROVISIONS

For all equipment subject to a New Source Performance Standard or a National Emission Standard for Hazardous Air Pollutants, the Permittee shall comply with all applicable requirements contained in Subpart A of Title 40, Chapter 60 and Chapter 63 of the Code of Federal Regulations.

[40 CFR Part 60 Subpart A and Part 63 Subpart A]

ATTACHMENT "B": SPECIFIC CONDITIONS

I. FACILITY-WIDE REQUIREMENTS

A. Opacity

1. Instantaneous Surveys and Six-Minute Observations

a. Instantaneous Surveys

Any instantaneous survey required by this permit shall be determined by either option listed in Conditions I.A.1.a(1) and (2):

[A.A.C. R18-2-311.b]

(1) Alternative Method ALT-082 (Digital Camera Operating Technique)

(a) The Permittee, or Permittee representative, shall be certified in the use of Alternative Method ALT-082.

(b) The results of all instantaneous surveys and six-minute observations shall be obtained within 30 minutes.

(2) EPA Reference Method 9 ~~Certified Observer.~~

[A.A.C. R18-2-306.A.3.c]

b. Six-Minute Observations

Any six-minute observation required by this permit shall be determined by either option listed in Conditions I.A.1.b(1) and (2):

[A.A.C. R18-2-311.b]

(1) Alternative Method ALT-082 (Digital Camera Operating Technique)

(a) The Permittee, or Permittee representative, shall be certified in the use of Alternative Method ALT-082.

(b) The results of all instantaneous surveys and six-minute observations shall be obtained within 30 minutes.

(2) EPA Reference Method 9.

~~c. The Permittee shall have on site or on call a person certified in EPA Reference Method 9 unless all 6-minute Method 9 observations required by this permit are conducted as a 6-minute Alternative Method-082 (Digital Camera Operating Technique) and all instantaneous visual surveys required by this permit are conducted as an instantaneous Alt-082 camera survey. Any 6-minute Method 9 observation required by this permit can be conducted as a 6-minute Alternative Method-082 and any~~

~~instantaneous visual survey required by this permit can be conducted as an instantaneous Alt-082 camera survey.~~

~~[A.A.C. R18-2-306.A.3.c]~~

2. Monitoring, Recordkeeping, and Reporting Requirements

[A.A.C. R18-2-306.A.3.c]

a. At the frequency specified in the following sections of this permit, the Permittee shall conduct an instantaneous survey of visible emissions from both process stack sources, when in operation, ~~and fugitive dust sources~~.

b. If the visible emissions on an instantaneous basis appears less than or equal to the applicable opacity standard, then the Permittee shall keep a record of the name of the observer, the date on which the instantaneous survey was made, and the results of the instantaneous survey.

c. If the visible emissions on an instantaneous basis appears greater than the applicable opacity standard, then the Permittee shall immediately conduct a six-minute observation of the visible emissions.

(1) If the six-minute observation of the visible emissions is less than or equal to the applicable opacity standard, then the Permittee shall record the name of the observer, the date on which the six-minute observation was made, and the results of the six-minute observation.

(2) If the six-minute observation of the visible emissions is greater than the applicable opacity standard, then the Permittee shall do the following:

(a) Adjust or repair the controls or equipment to reduce opacity to less than or equal to the opacity standard;

(b) Record the name of the observer, the date on which the six-minute observation was made, the results of the six-minute observation, and all corrective action taken; and

(c) Report the event as an excess emission for opacity in accordance with Condition XI.A of Attachment “A”.

(d) Conduct another six-minute observation to document the effectiveness of the adjustments or repairs completed.

II. COMBUSTION TURBINES REQUIREMENTS

A. Applicability

The requirements under this section are applicable to gas turbines GT-3, GT-4 and GT-5. This section includes NSPS Subpart KKKK requirements for gas turbines with a heat input at peak load equal to or greater than 10 MMBtu/h and that are constructed after February 18, 2005.

[40 CFR 60.4300 & 60.4305(a)]

B. General Provisions

The following requirements apply to the operation, maintenance, and testing of combustion turbines and associated air pollution control and monitoring systems in accordance with 40 CFR Part 60, Subpart A– General Provisions.

1. The Permittee shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.

[40 CFR 60.7(b)]

2. The Permittee shall submit excess emissions and monitoring systems performance reports and/or summary report forms on a semi-annual basis as required by 40 CFR 60.7(c) and (d).

[40 CFR 60.7(c), (d), & (e)]

3. At all times, including periods of startup, blowdown, shutdown, and malfunction, the Permittee shall, to the extent practicable, maintain and operate the gas turbines including associated air pollution control equipment, and monitoring equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Director which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

[40 CFR 60.11(d) & 60.4333(a)]

4. For the purpose of submitting compliance certifications or establishing whether or not a person has violated or is in violation of any standard in 40 CFR Part 60, nothing shall preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test or procedure had been performed.

[40 CFR 60.11(g)]

5. The Permittee shall not build, erect, install, or use any article, machine, equipment or process, the use of which conceals an emission, which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with opacity

standard or with a standard, which is based on the concentration of a pollutant in the gases discharged to the atmosphere.

[40 CFR 60.12]

6. The Permittee shall comply with the "General notification and reporting requirements" listed in 40 CFR 60.19.

[40 CFR 60.19]

C. Fuel Limitation

1. The Permittee shall not cause, allow or permit the firing of any fuel other than pipeline quality natural gas in the operation of the gas-fired in the combustion gas turbines.

[A.A.C. R18-2-306.A.2]

2. Monitoring and Recordkeeping Requirements

The Permittee shall record the monthly consumption of natural gas, in MMBtu, fired in all the compressor gas turbines.

[A.A.C. R18-2-306.A.3.c]

D. Carbon Monoxide

1. Emission Limitations and Standards

a. Standards for Solar Taurus 60 Compressors (GT-3 and GT-4)

The Permittee shall not emit more than 0.12 pounds of carbon monoxide (CO) per MMBtu of fuel combusted from the gas turbine engines.

[A.A.C. R18-2-306.01 and -331.A.3.a]
[Material Permit Conditions are identified by italics and underlines]

b. Standards for Solar Titan 250 Compressor (GT-5)

The Permittee shall not emit more than 0.061 pounds of carbon monoxide (CO) per MMBtu of fuel combusted from the gas turbine engines.

[A.A.C. R18-2-306.01 and -331.A.3.a]
[Material Permit Conditions are identified by italics and underlines]

2. Performance Testing Requirements

During every permit term the Permittee shall conduct a performance test on the stacks of the gas turbines to determine compliance with CO emission rate in Condition II.D.1. Performance testing will be conducted and data reduced in accordance with EPA Reference Method 10, 40 CFR 60, Appendix A.

[A.A.C.R18-2-306.A.3.c and -312]

E. Nitrogen Oxides (NOx)

1. Emission Limitations and Standards

a. Emission Limitation Standard for combustion turbine firing natural gas rated >50 MMBtu/h and ≤ 850 MMBtu/h:

The Permittee shall not cause the natural gas turbine to discharge into the atmosphere any gas which contains NOx in excess of 25 ppm at 15% O2 or 150 ng/J of useful output (1.2 lb/MWh).

[40 CFR 60.4320(a), Table 1 to 40 CFR 60 Subpart KKKK Row 3]

b. Standards for Solar Taurus 60 Compressors (GT-3 and GT-4)

The Permittee shall not emit more than 0.106 pounds of nitrogen oxides (NOx) per MMBtu of fuel combusted in the gas turbine engines.

[A.A.C. R18-2-306.01 and -331.A.3.a]
[Material Permit Conditions are identified by italics and underlines]

c. Standards for Solar Titan 250 Compressor (GT-5)

The Permittee shall not emit more than 0.060 pounds of nitrogen oxides (NOx) per MMBtu of fuel combusted in the gas turbine engines.

[A.A.C. R18-2-306.01 and -331.A.3.a]
[Material Permit condition indicated by underline and italics]

2. Performance Testing Requirements

The Permittee must perform annual performance tests in accordance with 40 CFR 60.4400 to demonstrate continuous compliance. If the NOx emission results from the performance test is less than or equal to 75 percent of the NOx emission limit for the turbine as stated in Condition II.E.1, the Permittee may reduce the frequency of subsequent performance tests to once every 2 years (no more than 26 calendar months following the previous performance test). If the results of any subsequent performance test exceed 75 percent of the NOx emission limit for the turbine, the Permittee must resume annual performance tests. Performance testing will be conducted and data reduced in accordance with EPA Reference Method 20, 40 CFR 60, Appendix A.

[40 CFR 60.4340(a)] [A.A.C.R18-2-306.A.3.c and -312]

3. Permit Shield

Compliance with the Conditions of this Part shall be deemed compliance with 40 CFR 60.4320(a) and 40 CFR 60.4340(a).

[A.A.C. R18-2-325]

F. Sulfur Dioxide (SO_2)

1. Emission Limitations/Standards

The Permittee shall not burn in the gas turbines GT-3, GT-4 and GT-5 any fuel which contains total sulfur potential emissions in excess of 26 ng SO_2/J (0.060 lb SO_2/MMBtu) heat input.

[40 CFR 60.4330(a)(2)]

2. The Permittee shall demonstrate compliance with Condition II.F.1 above by maintaining a copy of a current, valid purchase contract, tariff sheet or transportation contract for the fuel, specifying the maximum sulfur in the natural gas is 20 grains of sulfur or less per 100 standard cubic feet.

[40 CFR 60.4365(a)]

3. Permit Shield

Compliance with the Conditions of this Part shall be deemed compliance with 40 CFR 60.4330(a)(2) and 40 CFR 60.4365(a).

[A.A.C. R18-2-325]

III. EMERGENCY GENERATOR

A. Applicability

The requirements of A.A.C. R18-2-719, Standards of Performance for Existing Stationary Rotating Machinery and NESHAP 40 CFR 63 Subpart ZZZZ are applicable to the Aux. Generator G-1 emergency generator identified in Attachment "C".

[A.A.C. R18-2-719.A][40 CFR 63.6585]

B. Existing Source Requirements

1. Fuel Limitation

The Permittee shall burn only natural gas in the emergency generator.

[A.A.C. R18-2-306.A.2]

2. Particulate Matter and Opacity

a. Emissions Limitations and Standards

(1) The Permittee shall not cause, allow or permit the emission of particulate matter, caused by combustion of fuel, from the generator into the atmosphere in excess of the amounts calculated by the following equation:

[A.A.C. R18-2-719.C.1]

$$E = 1.02\ Q^{0.769}$$

Where

E = the maximum allowable particulate emission rate in pounds-mass per hour

Q = the heat input in million Btu per hour

(2) The Permittee shall not cause, allow or permit to be emitted into the atmosphere from the engine smoke for any period greater than 10 consecutive seconds which exceeds 40% opacity. Visible

emissions when starting cold equipment shall be exempt from this requirement for the first 10 minutes.

[A.A.C. R18-2-719.E]

b. Monitoring and Recordkeeping Requirements

The Permittee shall keep records of fuel supplier certifications documenting the lower heating value of the fuel. These records shall be made available to ADEQ upon request.

[A.A.C. R18-2-306.A.3.c, A.A.C. R18-2-719.I]

c. Permit Shield

Compliance with this Part shall be deemed compliance with A.A.C. R18-2-719.B, A.A.C. R18-2-719.C.1, A.A.C. R18-2-719.I and A.A.C. R18-2-719.E.

[A.A.C. R18-2-325]

C. National Emission Standards for Hazardous Air Pollutants (NESHAP) Requirements

1. General Operating Limitations/Requirements

a. The Permittee shall operate and maintain at all times the generator, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the Permittee to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator and the Director which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

[40 CFR 63.6605(b)]

b. The Permittee shall operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop a maintenance plan which shall provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.

[40 CFR 63.6625(e)]

c. The Permittee shall perform the following on the engine:

[40 CFR 63.6603(a), Item 5 of Table 2d of Subpart ZZZZ]

(1) The Permittee shall change the oil and filter every 500 hours of operation or annually, whichever comes first.

(2) The Permittee shall inspect the spark plugs every 1,000 hours of operation or annually, whichever comes first.

(3) The Permittee shall inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

d. Option of Utilizing Oil Analysis Program

[40 CFR §63.6625(j)]

The Permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Condition III.C.1.c(1) above. The oil analysis shall be performed at the same frequency specified for changing the oil. The analysis program must at a minimum analyze the following three parameters:

(1) Total Acid Number;

(2) Viscosity; and

(3) Percent water content.

The condemning limits for these parameters are as follows:

(1) Total Acid Number increases by more than 3.0 milligram of potassium hydroxide (KOH) per gram from the Total Acid Number of the oil when new;

(2) Viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or

(3) Percent water content (by volume) is greater than 0.5.

If all of these condemning limits are not exceeded, the Permittee is not required to change the oil. If any of the limits are exceeded, the Permittee must change the oil within 2 days of receiving the result of the analysis, or before commencing next operation, whichever is later. The Permittee shall keep records of the parameters that are analyzed as part of the program, the results of the analysis, the oil changes for the engine, and replacement of hoses and belts. The analysis program shall be part of the maintenance plan for the engine.

e. The Permittee shall operate the engine according to the following requirements.

[40 CFR 63.6640(f)]

(1) The Permittee may operate the emergency RICE for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State, or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of the engine is limited to no more than 100 hours per year. The Permittee may petition the Administrator and the Director for

approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the Permittee maintains records indicating that the Federal, State, or local standards require maintenance and testing beyond 100 hours per year. Copies of records shall be made available to ADEQ upon request.

(2) The Permittee may operate the emergency RICE up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing. The engine may not be operated for more than 30 minutes prior to the time when the emergency Condition is expected to occur, and the engine operation must be terminated immediately after the facility is notified that the emergency Condition is no longer imminent.

f. If the emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the management practice requirements required in Condition III.C.1.c, or if performing the management practice on the required schedule would otherwise pose an unacceptable risk under federal, state, or local law, the management practice can be delayed until the emergency is over or the unacceptable risk under federal, state, or local law has abated. The management practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under federal, state, or local law has abated. The Permittee must report any failure to perform the management practice on the schedule required and the federal, state or local law under which the risk was deemed unacceptable.

[40 CFR 63.6603(a), Table 2d, Item 5, Footnote 2]

g. *The Permittee shall install a non-resettable hour meter on the emergency engine if one is not already installed.*

[40 CFR 63.6625(f), A.A.C. R-18-2-331.A.3.c]
[Material Permit Condition identified by underline and italics]

h. The Permittee shall minimize the engine's time at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes.

[40 CFR 63.6625(h)]

2. Compliance Demonstration

The Permittee shall demonstrate continuous compliance by operating and maintaining the engine according to the manufacturer's emission-related operation and maintenance instructions; or by developing and following its own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.

[40 CFR 63.6640(a), 40 CFR 63 Subpart ZZZZ-Table 6, Item 9]

3. Recordkeeping Requirements

a. Records required in Condition III.C.2 to show continuous compliance with each operating limitation.

[40 CFR 63.6655(d)]

b. Records of the maintenance conducted on the engine in order to demonstrate that the facility operated and maintained the engine and after-treatment control device (if any) according to the Permittee's own maintenance plan.

[40 CFR 63.6655(e)]

c. Records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The Permittee shall document how many hours are spent for emergency operation; including what classified the operation as emergency and how many hours are spent for non-emergency operation.

[40 CFR 63.6655(f)]

d. The Permittee shall keep records of the parameters that are analyzed and the results of the oil analysis, if any, and the oil changes for the engine.

[40 CFR 63.6625(i)]

4. Permit Shield

Compliance with the Conditions of this Part shall be deemed compliance with 40 CFR Part 63.6603(a); 6605(b); 63.6625(e), 63.6625(f); 63.6625(h); 63.6625(j); 63.6640(a), 63.6640(f), 63.6655(d), 63.6655(e); 63.6655(f) and Tables 2d and 6 of 40 CFR subpart ZZZZ.

[A.A.C. R18-2-325]

IV. FUEL GAS HEATER

A. Applicability

This Section applies to the fuel gas heater in the Equipment List, Attachment 'C".

B. Fuel Limitations

The Permittee shall only fire natural gas fuel in the fuel gas heater.

[A.A.C. R18-2-306.A.2 and -331.A.3.a]
[Material permit Conditions are indicated by underline and italics]

C. Particulate Matter and Opacity

1. Emissions Limitations and Standards

a. The Permittee shall not cause, allow or permit the emission of particulate matter, caused by combustion of fuel, from any water heater or boiler into the atmosphere in excess of the amounts calculated by the following equation:

$E = 1.02 Q^{0.769}$

Where

E = the maximum allowable particulate emission rate in pounds-mass per hour.

Q = the heat input in million Btu per hour.

[A.A.C. R18-2-724.C.1]

b. For purposes of this Section, the heat input shall be the aggregate heat content of all fuels whose products of combustion pass through a stack or other outlet. The total heat input of all water heaters and boiler on the plant or premises shall be used for determining the maximum allowable amount of particulate matter which may be emitted.

[A.A.C. R18-2-724.B]

c. The Permittee shall not cause, allow or permit the opacity of any plume or effluent from any water heater or boiler to exceed 15 percent.

[A.A.C. R18-2-724.J]

2. Monitoring, Recordkeeping, and Reporting

The Permittee shall keep records of fuel supplier certifications. The certification shall contain information regarding the name of fuel supplier and lower heating value of the fuel. These records shall be made available to ADEQ upon request.

[A.A.C. R18-2-306.A.3.c]

3. Permit Shield

Compliance with the Conditions of this Section shall be deemed compliance with A.A.C R18-2-724.C.1, and A.A.C R18-2-724.J.

[A.A.C. R18-2-325]

V. GHG AND VOC FUGITIVE EMISSIONS REQUIREMENTS

A. Applicability

The requirements of NSPS Subpart OOOOa, under this Section, are applicable to the Ehrenberg Compressor Station upon installation of the new Solar/Titan 250 compressor and shall become effective upon startup.

[40 CFR 60.5365a(j)] [40 CFR 60.5370a(a)]

B. General

At all times, including periods of startup, shutdown, and malfunction, the Permittee shall maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Director which may include, but is not limited to, monitoring results, opacity observations, review of operating and

maintenance procedures, and inspection of the source. The provisions for exemption from compliance during periods of startup, shutdown and malfunctions provided for in 40 CFR 60.8(c) do not apply to this Section.

[40 CFR 60.5370a(b)]

C. Definitions

1. Fugitive emissions component means any component that has the potential to emit fugitive emissions of methane or VOC at a compressor station, including but not limited to valves, connectors, pressure relief devices, open-ended lines, flanges, covers and closed vent systems, compressors, instruments, and meters. Devices that vent as part of normal operations, such as natural gas-driven pneumatic controllers or natural gas-driven pumps, are not fugitive emissions components, insofar as the natural gas discharged from the device's vent is not considered a fugitive emission. Emissions originating from other than the vent, such as the thief hatch on a controlled storage vessel, would be considered fugitive emissions.

[40 CFR 60.5430a]

2. For purposes of this Section V, fugitive emissions are defined as: Any visible emission from a fugitive emissions component observed using optical gas imaging or an instrument reading of 500 ppm or greater using Method 21.

[40 CFR 60.5397a(a)]

D. Monitoring Requirements

1. The Permittee shall develop an emissions monitoring plan that covers the collection of fugitive emissions components at compressor stations within each company-defined area in accordance with Conditions V.D.2 and 3.

[40 CFR 60.5397a(b)]

2. The fugitive emissions monitoring plans shall include, at a minimum, the following elements:

[40 CFR 60.5397a(c)]

a. The frequency for conducting surveys. Surveys shall be conducted at least as frequently as required by Conditions V.D.5 and 6.

b. The technique for determining fugitive emissions (i.e., Method 21 at 40 CFR part 60, appendix A-7, or optical gas imaging).

c. The manufacturer and model number of fugitive emissions detection equipment to be used.

d. The procedures and timeframes for identifying and repairing fugitive emissions components from which fugitive emissions are detected, including timeframes for fugitive emission components that are unsafe to repair. The Permittee's repair schedule shall meet the requirements of Condition V.D.7 at a minimum.

e. The procedures and timeframes for verifying fugitive emission component repairs.

f. Records that will be kept and the length of time records will be kept.

g. If the Permittee is using optical gas imaging, the plan shall also include the elements specified below:

(1) Verification that the optical gas imaging equipment meets the specifications of Conditions V.D.2.g(1)(a) and (b) below. This verification is an initial verification and may either be performed by the facility, by the manufacturer, or by a third party. For the purposes of complying with the fugitives emissions monitoring program with optical gas imaging, a fugitive emission is defined as any visible emissions observed using optical gas imaging.

(a) The optical gas imaging equipment shall be capable of imaging gases in the spectral range for the compound of highest concentration in the potential fugitive emissions.

(b) The optical gas imaging equipment shall be capable of imaging a gas that is half methane, half propane at a concentration of 10,000 ppm at a flow rate of ≤60g/hr from a quarter inch diameter orifice.

(2) Procedure for a daily verification check.

(3) Procedure for determining the operator's maximum viewing distance from the equipment and how the operator will ensure that this distance is maintained.

(4) Procedure for determining maximum wind speed during which monitoring can be performed and how the operator will ensure monitoring occurs only at wind speeds below this threshold.

(5) Procedures for conducting surveys, including the items specified below:

(a) How the operator will ensure an adequate thermal background is present in order to view potential fugitive emissions.

(b) How the operator will deal with adverse monitoring conditions, such as wind.

(c) How the operator will deal with interferences (e.g., steam).

(6) Training and experience needed prior to performing surveys.

(7) Procedures for calibration and maintenance. At a minimum, procedures shall comply with those recommended by the manufacturer.

h. If the Permittee is using Method 21 of appendix A-7 of 40 CFR 60, the plan shall also include the following elements. For the purposes of complying with the fugitive emissions monitoring program using Method 21, a fugitive emission is defined as an instrument reading of 500 ppm or greater.

(1) Verification that the monitoring equipment meets the requirements specified in Section 6.0 of Method 21 at 40 CFR part 60, appendix A-7. For purposes of instrument capability, the fugitive emissions definition shall be 500 ppm or greater methane using a FID-based instrument. If the Permittee wishes to use an analyzer other than a FID-based instrument, the Permittee shall develop a site-specific fugitive emission definition that would be equivalent to 500 ppm methane using a FID-based instrument (e.g., 10.6 eV PID with a specified isobutylene concentration as the fugitive emission definition would provide equivalent response to the Permittee's compound of interest).

(2) Procedures for conducting surveys. At a minimum, the procedures shall ensure that the surveys comply with the relevant sections of Method 21 at 40 CFR part 60, appendix A-7, including Section 8.3.1.

3. Each fugitive emissions monitoring plan shall include the elements specified in Condition V.D.3.a through d below, at a minimum, as applicable.

[40 CFR 60.5397a(d)]

a. A Sitemap.

b. A defined observation path that ensures that all fugitive emissions components are within sight of the path. The observation path shall account for interferences.

c. If the Permittee is using Method 21, the plan shall also include a list of fugitive emissions components to be monitored and method for determining location of fugitive emissions components to be monitored in the field (e.g. tagging, identification on a process and instrumentation diagram, etc.).

d. The plan shall also include the written plan developed for all of the fugitive emission components designated as difficult-to-monitor in accordance with Condition V.D.6.b, and the written plan for fugitive emission components designated as unsafe-to-monitor in accordance with Condition V.D.6.c.

4. Each monitoring survey shall observe each fugitive emissions component, as defined in Condition V.C.1 for fugitive emissions.

[40 CFR 60.5397a(e)]

5. The Permittee shall conduct an initial monitoring survey of the compressor station within 60 days of the modification.

[40 CFR 60.5397a(f)(2)]

6. A monitoring survey of each collection of fugitive emissions components at the compressor station shall be performed at the frequencies specified in Condition V.D.6.a, with the exceptions noted in Conditions V.D.6.b and c.

[40 CFR 60.5397a(g)]

a. A monitoring survey of the collection of fugitive emissions components at a compressor station within a company-defined area shall be conducted at least quarterly after the initial survey. Consecutive quarterly monitoring surveys shall be conducted at least 60 days apart.

b. Fugitive emissions components that cannot be monitored without elevating the monitoring personnel more than 2 meters above the surface may be designated as difficult-to-monitor. Fugitive emissions components that are designated difficult-to-monitor shall meet the following specification:

(1) A written plan shall be developed for all of the fugitive emissions components designated difficult-to-monitor. This written plan shall be incorporated into the fugitive emissions monitoring plan.

(2) The plan shall include the identification and location of each fugitive emissions component designated as difficult-to-monitor.

(3) The plan shall include an explanation of why each fugitive emissions component designated as difficult-to-monitor is difficult-to-monitor.

(4) The plan shall include a schedule for monitoring the difficult-to-monitor fugitive emissions components at least once per calendar year.

c. Fugitive emissions components that cannot be monitored because monitoring personnel would be exposed to immediate danger while conducting a monitoring survey may be designated as unsafe-to-monitor. Fugitive emissions components that are designated unsafe-to-monitor shall meet the following specifications:

(1) A written plan shall be developed for all of the fugitive emissions components designated unsafe-to-monitor. This written plan shall be incorporated into the fugitive emissions monitoring plan.

(2) The plan shall include the identification and location of each fugitive emissions component designated as unsafe-to-monitor.

(3) The plan shall include an explanation of why each fugitive emissions component designated as unsafe-to-monitor is unsafe-to-monitor.

(4) The plan shall include a schedule for monitoring the fugitive emissions components designated as unsafe-to-monitor.

7. Each identified source of fugitive emissions shall be repaired or replaced in accordance with Conditions V.D.7.a and b.

[60.5397a(a) and (h)]

a. Each identified source of fugitive emissions shall be repaired or replaced as soon as practicable, but no later than 30 calendar days after detection of the fugitive emissions.

b. If the repair or replacement is technically infeasible, would require a vent blowdown, a compressor station shutdown, or would be unsafe to repair during operation of the unit, the repair or replacement shall be completed during the next scheduled compressor station shutdown, or within 2 years, whichever is earlier.

c. Each repaired or replaced fugitive emissions component shall be resurveyed as soon as practicable, but no later than 30 days after being repaired, to ensure that there are no fugitive emissions.

(1) For repairs that cannot be made during the monitoring survey when the fugitive emissions are initially found, the Permittee may resurvey the repaired fugitive emissions components using either Method 21 or optical gas imaging within 30 days of finding such fugitive emissions.

(2) For each repair that cannot be made during the monitoring survey when the fugitive emissions are initially found, a digital photograph shall be taken of that component or the component shall be tagged for identification purposes. The digital photograph shall include the date that the photograph was taken, shall clearly identify the component by location within the site (e.g., the latitude and longitude of the component or by other descriptive landmarks visible in the picture).

(3) The Permittee that uses Method 21 to resurvey the repaired fugitive emissions components, is subject to the following resurvey provisions:

(a) A fugitive emissions component is repaired when the Method 21 instrument indicates a concentration of less than 500 ppm above background or when no soap bubbles are observed when the alternative screening procedures specified in section 8.3.3 of Method 21 are used.

(b) The Permittee shall use the Method 21 monitoring requirements specified in Condition V.D.2.h(2), or the alternative screening procedures specified in section 8.3.3 of Method 21.

(4) The Permittee that uses optical gas imaging to resurvey the repaired fugitive emissions components, is subject to the following resurvey provisions:

(a) A fugitive emissions component is repaired when the optical gas imaging instrument shows no indication of visible emissions.

(b) The Permittee shall use the optical gas imaging monitoring requirements specified in Condition V.D.2.g.

E. Recordkeeping Requirements

For each collection of fugitive emissions components at a compressor station, the Permittee shall maintain records identified in Conditions V.E.1 and 2 below:
[60.5397a(i), 60.5420a(c)(15)]

1. The fugitive emissions monitoring plan as required in Conditions V.D.1 through 3.

2. The records of each monitoring survey as specified below:

a. Date of the survey.

b. Beginning and end time of the survey.

c. Name of operator(s) performing survey. The Permittee shall note the training and experience of the operator.

d. Monitoring instrument used.

e. When optical gas imaging is used to perform the survey, one or more digital photographs or videos, captured from the optical gas imaging instrument used for conduct of monitoring, of each required monitoring survey being performed. The digital photograph shall include the date the photograph was taken and the latitude and longitude of the collection of fugitive emissions components at a compressor station imbedded within or stored with the digital file. As an alternative to imbedded latitude and longitude within the digital file, the digital photograph or video may consist of an image of the monitoring survey being performed with a separately operating GPS device within the same digital picture or video, provided the latitude and longitude output of the GPS unit can be clearly read in the digital image.

f. Fugitive emissions component identification when Method 21 is used to perform the monitoring survey.

g. Ambient temperature, sky conditions, and maximum wind speed at the time of the survey.

h. Any deviations from the monitoring plan or a statement that there were no deviations from the monitoring plan.

i. Documentation of each fugitive emission, including the information specified below:

(1) Location.

(2) Any deviations from the monitoring plan or a statement that there were no deviations from the monitoring plan.

(3) Number and type of components for which fugitive emissions were detected.

(4) Number and type of difficult-to-monitor and unsafe-to-monitor fugitive emission components monitored.

(5) Instrument reading of each fugitive emissions component that requires repair when Method 21 is used for monitoring.

(6) Number and type of fugitive emissions components that were not repaired as required in Condition V.D.7.

(7) Number and type of components that were tagged as a result of not being repaired during the monitoring survey when the fugitive emissions were initially found as required in Condition V.D.7.c(2).

(8) If a fugitive emissions component is not tagged, a digital photograph or video of each fugitive emissions component that could not be repaired during the monitoring survey when the fugitive emissions were initially found as required in Condition V.D.7.c(2). The digital photograph or video shall clearly identify the location of the component that must be repaired. Any digital photograph or video required under this paragraph can also be used to meet the requirements under Condition V.E.2.e, as long as the photograph or video is taken with the optical gas imaging instrument, includes the date and the latitude and longitude are either imbedded or visible in the picture.

(9) Repair methods applied in each attempt to repair the fugitive emissions components.

(10) Number and type of fugitive emission components placed on delay of repair and explanation for each delay of repair.

(11) The date of successful repair of the fugitive emissions component.

(12) Instrumentation used to resurvey a repaired fugitive emissions component that could not be repaired during the initial fugitive emissions finding.

F. Compliance Requirements

1. Initial Compliance Requirements

The Permittee shall determine initial compliance with the fugitive emission standards for each collection of fugitive emissions components at the compressor station in accordance with the requirements in Conditions V.F.1.a through e. The initial compliance period shall begin upon initial startup, and ends no later than 1 year after the initial startup date.

[40 CFR 60.5410a(j)]

a. The Permittee shall develop a fugitive emissions monitoring plan as required in Conditions V.D.1 through 3.

b. The Permittee shall conduct an initial monitoring survey as required in Condition V.D.5.

c. The Permittee shall maintain the records specified in Condition V.E.

d. The Permittee shall repair each identified source of fugitive emissions for each affected facility as required in Condition V.D.7.

e. The Permittee shall submit the initial annual report for each collection of fugitive emissions components at the station compressor station as required in Conditions V.G.3 and 4.

2. Continuous Compliance Requirements

To demonstrate continuous compliance, the Permittee shall comply with the requirements in Conditions V.F.2.a through d:

[40 CFR 60.5415a(h)]

a. The Permittee shall conduct periodic monitoring surveys as required in Condition V.D.6.

b. The Permittee shall repair or replace each identified source of fugitive emissions as required in Condition V.D.7.

c. The Permittee shall maintain records as specified in Condition V.E.

d. The Permittee shall submit the annual report for each collection of fugitive emissions components at the station compressor station as required in Conditions V.G.3 and 4.

G. Reporting Requirements

1. Annual reports shall be submitted for each collection of fugitive emissions components at the compressor station. Multiple collection of fugitive emissions components at the compressor station may be included in a single annual report.
[40 CFR 60.5397a(j)]

2. The initial annual report is due no later than 90 days after the end of the initial compliance period. The initial compliance period shall begin upon the initial startup of the new compressor station, and shall end no later than 1 year after the initial startup date. Subsequent annual reports are due no later than same date each year as the initial annual report.
[40 CFR 60.5410a and 60.5420a(b)]

3. The report shall include the following general information:
[40 CFR 60.5420a(b)(1)]

   a. The company name, facility site name associated with the affected facility, and address of the affected facility. If an address is not available for the site, include a description of the site location and provide the latitude and longitude coordinates of the site in decimal degrees to an accuracy and precision of five (5) decimals of a degree using the North American Datum of 1983.

   b. An identification of each affected facility being included in the annual report.

   c. Beginning and ending dates of the reporting period.

   d. A certification by a certifying official of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

4. For the collection of fugitive emissions components at each compressor station within the company-defined area, the report shall include the records of each monitoring survey including the information specified in Conditions V.G.4.a through l below.
[40 CFR 60.5420a(b)(7)]

   a. Date of the survey.

   b. Beginning and end time of the survey.

c. Name of operator(s) performing survey. If the survey is performed by optical gas imaging, The Permittee shall note the training and experience of the operator.

d. Ambient temperature, sky conditions, and maximum wind speed at the time of the survey.

e. Monitoring instrument used.

f. Any deviations from the monitoring plan or a statement that there were no deviations from the monitoring plan.

g. Number and type of components for which fugitive emissions were detected.

h. Number and type of fugitive emissions components that were not repaired as required in §60.5397a(h).

i. Number and type of difficult-to-monitor and unsafe-to-monitor fugitive emission components monitored.

j. The date of successful repair of the fugitive emissions component.

k. Number and type of fugitive emission components placed on delay of repair and explanation for each delay of repair.

l. Type of instrument used to resurvey a repaired fugitive emissions component that could not be repaired during the initial fugitive emissions finding.

5. The Permittee shall submit reports to the EPA via the CEDRI. (CEDRI can be accessed through the EPA's CDX (https://cdx.epa.gov/).) The Permittee shall use the appropriate electronic report in CEDRI for this subpart or an alternate electronic file format consistent with the extensible markup language (XML) schema listed on the CEDRI Web site (https://www3.epa.gov/ttn/chief/cedri/). If the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, The Permittee shall submit the report to the Administrator at the appropriate address listed in 40 CFR 60.4. Once the form has been available in CEDRI for at least 90 calendar days, The Permittee shall begin submitting all subsequent reports via CEDRI. The reports shall be submitted by the deadlines specified in this subpart, regardless of the method in which the reports are submitted.

[40 CFR 60.5420a(b)(11)]

H. Permit Shield

Compliance with Section V of Attachment "B" shall be deemed compliance with 40 CFR 60.5365a(j), 60.5370a(a) and (b), 60.5397a(a) through (j), 60.5410a(j), 60.5415a(h), 60.5420a(b), 60.5420a(b)(1), 60.5420a(b)(7), 60.5420a(c)(15), and 60.5430a.

[A.A.C. R18-2-325]

VI. FUGITIVE DUST REQUIREMENTS

A. Applicability

Section VI applies to any non-point source of fugitive dust in the facility.

B. Particulate Matter and Opacity

Open Areas, Roadways & Streets, Storage Piles, and Material Handling

1. Emission Limitations and Standards

a. Opacity of emissions from any fugitive dust non-point source shall not be greater than 40%.

[A.A.C. R18-2-614]

b. The Permittee shall employ the following reasonable precautions to prevent excessive amounts of particulate matter from becoming airborne:

(1) For a building or its appurtenances, or a building or subdivision site, or a driveway, or a parking area, or a vacant lot or sales lot, or an urban or suburban open area to be constructed, used, altered, repaired, demolished, cleared, or leveled, or the earth to be moved or excavated, keep dust and other types of air contaminants to a minimum by good modern practices such as using an approved dust suppressant or adhesive soil stabilizer, paving, covering, landscaping, continuous wetting, detouring, barring access, or other acceptable means;

[A.A.C. R18-2-604.A]

(2) Keep dust to a minimum from vacant lots or an urban or suburban open area where motor vehicular activity occurs by using an approved dust suppressant, or adhesive soil stabilizer, or by paving, or by barring access to the property, or by other acceptable means;

[A.A.C. R18-2-604.B]

(3) Keep dust and other particulates to a minimum by employing dust suppressants, temporary paving, detouring, wetting down or by other reasonable means when a roadway or alley is used, repaired, constructed, or reconstructed;

[A.A.C. R18-2-605.A]

(4) Take reasonable precautions, such as the use of spray bars, wetting agents, dust suppressants, covering the load, and hoods to prevent excessive amounts of particulate matter from becoming airborne when crushing, screening, handling, transporting or conveying of materials or other operations likely to result in significant amounts of airborne dust.

[A.A.C. R18-2-605.B]

(5) Take reasonable precautions, such as wetting, applying dust suppressants, or covering the load when transporting material likely to give rise to airborne dust. Earth or other material that is deposited by trucking or earth moving equipment shall be removed from paved streets by the person responsible for such deposits.

[A.A.C. R18-2-606]

(6) Take reasonable precautions such as chemical stabilization, wetting, or covering when organic or inorganic dust producing material is being stacked, piled, or otherwise stored to prevent excessive amounts of particulate matter from becoming airborne;

[A.A.C. R18-2-607.A]

(7) Operate stacking and reclaiming machinery utilized at storage piles at all times with a minimum fall of material, or with the use of spray bars and wetting agents to prevent excessive amounts of particulate matter from becoming airborne;

[A.A.C. R18-2-607.B]
[A.A.C R18-2-608]

(8) Any other method as proposed by the Permittee and approved by the Director.

[A.A.C. R18-2-306.A.3.c]

2. Air Pollution Control Requirements

Unpaved Roads

Water, or an equivalent control, shall be used to control visible emissions from unpaved roads.

[A.A.C. R18-2-306.A.2 and -331.A.3.d]
[Material Permit Condition is indicated by underline and italics]

3. Monitoring and Recordkeeping Requirements

The Permittee shall maintain records of the dates on which any of the activities listed in Condition VI.B.1.b above were performed and the control measures that were adopted.

[A.A.C. R18-2-306.A.3.c]

C. Permit Shield

Compliance with Section VI shall be deemed compliance with A.A.C. R18-2-604. -605, -606, 607, -608, -614, and -804.B.

[A.A.C. R18-2-325]

VII. OTHER PERIODIC ACTIVITIES

A. Abrasive Blasting

1. Particulate Matter and Opacity

a. Emission Limitations/Standards

The Permittee shall not cause or allow sandblasting or other abrasive blasting without minimizing dust emissions to the atmosphere through the use of good modern practices. Good modern practices include:

[A.A.C. R18-2-726]

(1) Wet blasting;

(2) Effective enclosures with necessary dust collecting equipment; or

(3) Any other method approved by the Director.

b. Opacity

The Permittee shall not cause, allow or permit visible emissions from sandblasting or other abrasive blasting operations in excess of 20% opacity.

[A.A.C. R18-2-702.B.3]

2. Monitoring and Recordkeeping Requirement

Each time an abrasive blasting project is conducted, the Permittee shall make a record of the following:

[A.A.C. R18-2-306.A.3.c]

a. The date the project was conducted;

b. The duration of the project; and

c. Type of control measures employed.

3. Permit Shield

Compliance with Condition VII.A.1.a shall be deemed compliance with A.A.C. R18-2-702.B.3 and -726.

[A.A.C.R18-2-325]

B. Use of Paints

1. Volatile Organic Compounds

a. Emission Limitations/Standards

While performing spray painting operations, the Permittee shall comply with the following requirements:

(1) The Permittee shall not conduct or cause to be conducted any spray painting operation without minimizing organic solvent

emissions. Such operations, other than architectural coating and spot painting, shall be conducted in an enclosed area equipped with controls containing no less than 96 percent of the overspray.
[A.A.C.R18-2-727.A]

(2) The Permittee or their designated contractor shall not either:
[A.A.C.R18-2-727.B]

(a) Employ, apply, evaporate, or dry any architectural coating containing photochemically reactive solvents for industrial or commercial purposes; or

(b) Thin or dilute any architectural coating with a photochemically reactive solvent.

(3) For the purposes of Condition VII.B.1.a(1), a photochemically reactive solvent shall be any solvent with an aggregate of more than 20 percent of its total volume composed of the chemical compounds classified in Condition VII.B.1.a(2), or which exceeds any of the following percentage composition limitations, referred to the total volume of solvent:
[A.A.C.R18-2-727.C]

(a) A combination of the following types of compounds having an olefinic or cyclo-olefinic type of unsaturation-hydrocarbons, alcohols, aldehydes, esters, ethers, or ketones: 5 percent.

(b) A combination of aromatic compounds with eight or more carbon atoms to the molecule except ethylbenzene: 8 percent.

(c) A combination of ethylbenzene, ketones having branched hydrocarbon structures, trichloroethylene or toluene: 20 percent.

(4) Whenever any organic solvent or any constituent of an organic solvent may be classified from its chemical structure into more than one of the groups of organic compounds described in Condition VII.B.1.a(2), it shall be considered to be a member of the group having the least allowable percent of the total volume of solvents.
[A.A.C.R18-2-727.D]

b. Monitoring and Recordkeeping Requirements
[A.A.C. R18-2-306.A.3.c]

(1) Each time a spray painting project is conducted, the Permittee shall make a record of the following:

(a) The date the project was conducted;

(b) The duration of the project;

(c) Type of control measures employed;

(d) Safety Data Sheets (SDS) for all paints and solvents used in the project; and

(e) The amount of paint consumed during the project.

(2) Architectural coating and spot painting projects shall be exempt from the recordkeeping requirements of Condition VII.B.1.b(1).

c. Permit Shield

Compliance with Condition VII.B.1.a shall be deemed compliance with A.A.C.R18-2-727.

[A.A.C.R18-2-325]

2. Opacity

a. Emission Limitation/Standard

The Permittee shall not cause, allow or permit visible emissions from painting operations in excess of 20% opacity.

[A.A.C. R18-2-702.B.3]

b. Permit Shield

Compliance with Condition VII.B.2.a shall be deemed compliance with A.A.C.R18-2-702.B.3.

[A.A.C. R18-2-325]

C. Demolition/Renovation - Hazardous Air Pollutants

1. Emission Limitation/Standard

The Permittee shall comply with all of the requirements of 40 CFR 61 Subpart M (National Emissions Standards for Hazardous Air Pollutants - Asbestos).

[A.A.C. R18-2-1101.A.12]

2. Monitoring and Recordkeeping Requirement

The Permittee shall keep all required records in a file. The required records shall include the "NESHAP Notification for Renovation and Demolition Activities" form and all supporting documents.

[A.A.C. R18-2-306.A.3.c]

3. Permit Shield

Compliance with Condition VII.C.1 shall be deemed compliance with A.A.C. R18-2-1101.A.12.

[A.A.C. R18-2-325]

ATTACHMENT "C": EQUIPMENT LIST

EQUIPMENT TYPE	MAX. CAPACITY	MAKE	MODEL	SERIAL NUMBER	INSTALLATION/ MFG. DATE	EQUIPMENT ID NUMBER	A.A.C. / NSPS / NESHAP
Compressor	29,626 hp	Solar	Titan 250	TBD	2020	GT-5	NSPS Subpart KKKK and OOOOa
Compressor	7,700 hp	Solar	Taurus 60	NA	2008	GT-3	NSPS Subpart KKKK and OOOOa
Compressor	7,700 hp	Solar	Taurus 60	NA	2008	GT-4	NSPS Subpart KKKK and OOOOa
Aux. Generator	1462 hp ~~1,085~~ hp	Caterpillar	G3516-130LE	NA	2001	G-1	A.A.C. R18-2-719 and NESHAP Subpart ZZZZ
Fuel Gas Heater	0.88 MMBtu/hr	TBD	TBD	TBD	TBD	TBD	A.A.C. R18-2-724