

PIMA COUNTY DEPARTMENT OF ENVIRONMENTAL QUALITY

33 N. Stone Avenue, Suite 700 • Tucson, Arizona 85701 • Phone: (520) 724-7400

**PREVENTION OF
SIGNIFICANT DETERIORATION
AIR QUALITY PERMIT**

(As required by Title 17.12, Article II, Pima County Code)

ISSUED TO

**EL PASO NATURAL GAS COMPANY, L.L.C.
(EPNG) - VAIL COMPRESSOR STATION
10200 SOUTH RITA ROAD
TUCSON, ARIZONA 85747**

This air quality permit does not relieve applicant of responsibility for meeting all air pollution regulations

This air quality permit does not relieve El Paso Natural Gas from the responsibility to comply with any other applicable provisions of the Clean Air Act or other federal, state, and local requirements.

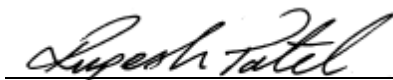
This PSD permit for the EPNG Vail Compressor Station shall become effective 30 days after service of this notice of the final permit decision, unless a petition for review is properly and timely filed with the EAB per 40 CFR 124.19 or 40 CFR 49.159(d). In the event that a petition for review is filed with the EAB, construction of the facility is not authorized under this permit until resolution of the EAB petition(s). See 40 CFR 124.16.

PDEQ PERMIT NUMBER 425

PERMIT CLASS I

ISSUED: May 4, 2021

EXPIRES: May 3, 2026



SIGNATURE

Rupesh Patel, Air Program Manager, PDEQ

TITLE

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SUMMARY

This Title V, Class I, Major Source air quality permit is issued to El Paso Natural Gas Company, L.L.C. (EPNG), the Permittee, for operation of their Vail Compressor Station. A renewal of the Title V, Class I Permit No. 425 was recently issued on July 27, 2020, which expires on July 26, 2025 for continued operation of the Vail Compressor Station. EPNG submitted an application for a Significant Permit Revision for the Vail Compressor Station on February 7, 2020. This modification is issued to EPNG to install additional gas cooling facilities and gas recycling and an emergency generator to allow for operational flexibility. The revision is subject to the Prevention of Significant Deterioration (PSD) permitting pursuant to title 40 of the Code of Federal Regulations, section 52.21.

EPNG provides natural gas transportation services for natural gas suppliers and end users throughout the southwestern United States, and owns and operates a large natural gas pipeline network. The Vail compressor station is one of several such stations that provide natural gas compression to the pipeline network. Compression is needed to maintain enough pressure in the pipeline to keep the natural gas flowing, and is accomplished by three natural gas-fired General Electric M3002-RA turbines each driving a compressor unit. Primary electric power at the Vail station is purchased power i.e. EPNG Vail compression station does not have auxiliary engines for power generation.

There is no air pollution control equipment installed on any of the gas turbines at the Vail compressor station. The three turbines were installed in 1953 and are not subject to New Source Performance Standards. The facility is permitted to operate 24 hours a day and 365 days a year.

This facility has been automated and hence is an unattended station. All records relating to this permit will be kept at 5151 E. Broadway, Suite 1680, Tucson, AZ 85711.

The current total potential emissions emitted from this facility (excluding insignificant activities) are as follows. These figures are for reference purposes only, and are not enforceable by direct measurement unless otherwise noted in Part B of this permit. The source is a major source for Nitrogen Oxide (NO_x) and Carbon Monoxide (CO) and minor for all other regulated pollutants.

Pollutant		Emissions ¹ (lbs Per Hour Per Turbine)	Total Emissions (Tons Per Year)
Nitrogen Oxides	NO _x	41.0	539
Carbon Monoxide	CO	13.1	173
Green House Gas	CO _{2e}	6,079	18,369
Particulate Matter	PM ₁₀	0.34	4.51
Volatile Organic Compounds	VOC	0.11	2.70
Sulfur Oxides	SO _x	0.18	2.32
Single Hazardous Air Pollutants	HAP	0.162	0.49
Total Hazardous Air Pollutants	HAPs	0.05	0.80
Formaldehyde	CH ₂ O	0.04	0.49

¹ NO_x was based on the highest fuel rate for units similar to the EPNG Vail Compressor Station identified within the EPNG COMET database. CO based on source test data dated December 6, 2007 and February 2, 2011. VOC, SO₂, HAPs, PM and CO_{2e} are based on EPA AP-42 Emission factors. NO_x and CO emissions include a modest +10% Safety Factor to represent maximum operating conditions.

EPNG is accepting an operational restriction which will only allow operation of two turbine units simultaneously at any time except during periods of switching and routine maintenance. EPNG also proposes to add a natural gas-fired emergency generator to provide power to the gas cooling fans in an emergency when purchased power is interrupted. Based on this operating limitation, the potential emissions from the Vail Compressor Station are provided below.

Pollutant	Estimated Potential Emissions (tpy)			
	Turbine A-1, A-2, or A-3	Emergency Generator	Fugitives	Total
NO _x	180.68	1.11	-	362
CO	57.59	2.22	-	117
VOC	0.48	0.55	1.27	2.78
SO ₂	0.77	0.001	-	1.55
PM/PM ₁₀ /PM _{2.5}	1.50	0.09	-	3.10
Max HAP	0.16	0.07	0.10	0.16
Total HAPs	0.23	0.11	0.10	0.67
CO _{2e}	26,649	230	771	54,299

All terms and conditions of this permit are enforceable by the Administrator of the United States Environmental Protection Agency (U.S.EPA) except as otherwise noted.

PART A

GENERAL CONDITIONS

(References to A.R.S. are references to the Arizona Revised Statutes, references to A.A.C. are references to the Arizona Administrative Code, and references to PCC are references to Title 17 of the Pima County Code)

1. Permit Expiration and Renewal

[PCC 17.11.090.A & PCC 17.12.010.D.1]

- A. This permit is valid for a period of five years from the date of issuance.
- B. The Permittee shall submit an application for renewal of this permit at least 6 months, but not more than 18 months prior to the date of permit expiration.

2. Compliance with Permit Conditions

[PCC 17.12.040.A.8.a & b]

- A. The Permittee shall comply with all conditions of this permit including all applicable requirements of the Arizona air quality statutes and Pima County air quality rules. Any permit noncompliance constitutes a violation of the Arizona Revised Statutes and is grounds for enforcement action; for permit termination, revocation and reissuance, or 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.
- 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.

3. Permit Revision, Reopening, Revocation and Reissuance, or Termination for Cause

[PCC 17.12.040.A.8.c & PCC 17.12.130]

- 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.
- 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 a 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 an application for renewal has been submitted pursuant to PCC 17.12.140.B. Any permit revision required pursuant to this subparagraph shall comply with the provisions in PCC 17.12.140 for permit renewal and shall reset the five-year permit term.
 - 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.
 - 3. The Control Officer 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.
 - 4. The Control Officer or the Administrator determines that the permit needs to be revised or revoked to assure compliance with the applicable requirements.

- C. Proceedings to reopen and reissue 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 affect only those parts of the permit for which cause to reopen exists. Such reopenings shall, except for reopenings under condition 3.B.1 above, affect only those parts of the permit for which cause to reopen exist. Such reopenings shall be made as expeditiously as practicable. Permit reopenings for reasons other than those stated in condition 3.B.1 above shall not result in a resetting of the five-year permit term.

4. Posting of Permit

[PCC 17.11.060, SIP Rule 222 & ARS 49-485]

The Permittee, who has been granted an individual permit by PDEQ or a general permit and authorization to operate (ATO), shall maintain a complete copy of the permits and ATO's onsite. If it is not feasible to maintain a copy of the permit and ATO onsite, the Permittee may request, in writing, to maintain a copy of the permit at an alternate location. Upon written approval by the Control Officer, the Permittee must maintain a complete copy of the permit at the approved alternative location. In addition, the machine(s), equipment, device(s), or other article(s) for which the permit or ATO has been issued shall be affixed with a unique and clearly visible and accessible identification (ID).

5. Fee Payment

[PCC 17.12.040.A.9 & PCC 17.12.220, SIP Rule 214]

The Permittee shall pay fees to the Control Officer pursuant to PCC 17.12.220.

6. Annual Emissions Inventory Questionnaire

[PCC 17.12.160]

- A. When requested by the Control Officer, the Permittee shall complete and submit to the Control Officer an annual emissions inventory questionnaire. The questionnaire is due by March 31 or ninety days after the Control Officer makes the request and inventory form available, whichever occurs later, and shall include emission information for the previous calendar year. These requirements apply whether or not a permit has been issued and whether or not a permit application has been filed.
- B. The questionnaire shall be on a form provided by or approved by the Control Officer and shall include the information required by PCC 17.12.160.

7. Compliance Certification

[PCC 17.12.040.A.5 & PCC 17.12.080.A.2]

The Permittee shall submit a compliance certification to the Control Officer that describes the compliance status of the source with respect to each permit condition. Certifications shall be submitted on the dates and frequency specified in Part B of this permit.

- A. The compliance certification shall include the following:
 - 1. Identification of each term or condition contained in the permit including emission limitations, standards, or work practices that are the basis of the certification;
 - 2. Identification of the method(s) or other means used by the Permittee for determining the compliance status with each term and condition during the certification period. Such methods and other means shall include, at a minimum, the methods and means required under PCC 17.12.040(A)(3), (monitoring including the related recordkeeping and reporting sections of this permit. If necessary, the Permittee also shall identify any other material information that must be included in the certification to comply with Section 113(c)(2) of the Clean Air Act, which prohibits knowingly making a false certification or omitting material information;

3. The 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 certification shall be based on the methods or means designated in condition 7.A.2 above. The certification shall identify each deviation and take it into account for consideration in the compliance certification;
 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;
 5. All instances of deviations from permit requirements reported pursuant to condition 11.B of Part A as well as progress reports on all outstanding compliance schedules submitted pursuant to PCC 17.12.080; and
 6. Other facts the Control Officer may require to determine the compliance status of the facility.
- B. A copy of all compliance certifications for Class I permits shall also be submitted to the EPA Administrator. The compliance certifications may be submitted electronically using the subpart specific reporting form in the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (www.epa.gov/cdx). However, if the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, the written report must be submitted to the Administrator at the appropriate address listed in §60.4. The address for the EPA Administrator is:

EPA Region 9, Air Section (ENF-2-1), Enforcement and Compliance Assurance Division, 75 Hawthorne St, San Francisco, CA 94105

8. Certification of Truth, Accuracy and Completeness

[PCC 17.12.080.A.3]

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 and any other certification required by this permit shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

9. Inspection and Entry

[PCC 17.12.080.A.4]

The Permittee shall allow the Control Officer or the authorized representative of the Control Officer upon presentation of proper credentials 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;
- B. Have access to and copy, at reasonable times, any records that are required to be kept under the conditions of the permit;
- C. Inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit;
- D. Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with the permit or other applicable requirements; and
- E. Record any inspection by use of written, electronic, magnetic and photographic media.

10. Permit Revision Pursuant to Federal Hazardous Air Pollutant Standard

[PCC 17.12.010.D.3]

If this source becomes subject to a standard promulgated by the Administrator pursuant to Section 112(d) of the Clean Air Act (National Emission Standards for Hazardous Air Pollutants - NESHAP), then the Permittee shall, within twelve months of the date on which the standard is promulgated, submit an application for a permit revision demonstrating how the source will comply with the standard.

11. Excess Emissions, Permit Deviations, and Emergency Reporting

A. Excess Emissions Reporting

[PCC 17.13.170]]

1. Excess emissions shall be reported as follows:

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

- i. Notification by telephone, facsimile or e-mail within 24 hours of the time when the Permittee first learned of the occurrence of excess emissions including all available information in condition 11.A.1.b. below. The number to call to report excess emissions is **520-724-7400**. The facsimile number to report excess emissions is **520-838-7432**. The e-mail to report excess emissions is air.notices@pima.gov
- ii. Detailed written notification by submission of an excess emissions report within 72 hours of the notification in 11.A.1.a.i above. Notifications should be mailed or e-mailed to:

PDEQ Air Program 33 N. Stone Avenue, Suite 700, Tucson, Arizona 85701.
air.notices@pima.gov

b. The report shall contain the following information:

- i. Identity of each stack or other emission point where the excess emission occurred;
- ii. 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;
- iii. Date, time, and duration or expected duration of the excess emissions;
- iv. Identity of the equipment from which the excess emissions emanated;
- v. Nature and cause of the emissions;
- vi. 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; and
- vii. The steps that were or are being taken to limit the excess emissions; If the excess emissions resulted from start-up or malfunction, the report shall contain a list of the steps taken to comply with permit procedures.

2. In the case of continuous or recurring excess emissions, the notification requirements of this section 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 11.A.1 above.

B. Permit Deviations Reporting

[PCC 17.12.040.A.5.b]

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. Prompt reporting shall mean that the report was submitted to the Control Officer by certified mail, facsimile, e-mail (air.notices@pima.gov) or hand delivery within two working days of the time when emission limitations were exceeded due to an emergency or within two working days of the time when the Permittee first learned of the occurrence of a deviation from a permit requirement.

C. Emergency Provision

[PCC 17.12.040.E]

1. An "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, that requires 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 emission attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventive maintenance, careless or improper operation, or operator error.
2. An emergency constitutes an affirmative defense to an action brought for noncompliance with the technology-based emission limitations if condition 11.C.3 below is met.
3. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:
 - a. An emergency occurred and that the Permittee can identify the cause or causes of the emergency;
 - b. The permitted facility was being properly operated at the time of the emergency;
 - 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
 - d. The Permittee submitted notice of the emergency to the Control Officer by certified mail, facsimile, e-mail (air.notices@pima.gov) 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.
4. In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
5. This provision is in addition to any emergency or upset provision contained in any applicable requirement.

D. Compliance Schedule

[ARS § 49-480.F.3 & 5]

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 Control Officer 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.

E. Affirmative Defenses for Excess Emissions Due to Malfunctions, Startup, and Shutdown. [PCC 17.12.180]

1. Applicability

This rule 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 Clean Air Act;
- b. Promulgated pursuant to Titles IV or VI of the Clean Air Act;
- c. Contained in any Prevention of Significant Deterioration (PSD) or New Source Review (NSR) permit issued by the U.S. EPA; or
- d. Included in a permit to meet the requirements of PCC 17.16.590.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 condition 11.A above and has demonstrated all of the following:

- 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;
- 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;
- 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;
- 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;
- e. All reasonable steps were taken to minimize the impact of the excess emissions on ambient air quality;
- f. The excess emissions were not part of a recurring pattern indicative of inadequate design, operation, or maintenance;
- g. During the period of excess emissions there were no exceedances of the relevant ambient air quality standards established in PCC Chapter 17.08 that could be attributed to the emitting source;

- 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;
- i. All emissions monitoring systems were kept in operation if at all practicable; and
- j. The Permittee's actions in response to the excess emissions were documented by contemporaneous records.

3. Affirmative Defense for Startup and Shutdown

a. Except as provided in condition 11.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 11.A above and has demonstrated all of the following:

- i. The excess emissions could not have been prevented through careful and prudent planning and design;
- ii. 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;
- iii. The source's 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;
- iv. The amount and duration of the excess emissions (including any bypass operation) were minimized to the maximum extent practicable during periods of such emissions;
- v. All reasonable steps were taken to minimize the impact of the excess emissions on ambient air quality;
- vi. During the period of excess emissions there were no exceedances of the relevant ambient air quality standards established in PCC Chapter 17.08 that could be attributed to the emitting source;
- vii. All emissions monitoring systems were kept in operation if at all practicable; and
- viii. Contemporaneous records documented the Permittee's actions in response to the excess emissions.

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 above.

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 11.E.2 above.

5. Demonstration of Reasonable and Practicable Measures

For an affirmative defense under conditions 11.E.2 or 3 above, the Permittee shall demonstrate, through submission of the data and information required by conditions 11.E.1 through 5 and 11.A of Part A, that all reasonable and practicable measures within the Permittee's control were implemented to prevent the occurrence of the excess emissions.

12. Recordkeeping Requirements

[PCC 17.12.040.A.4]

- A. The Permittee shall keep records of all required monitoring information including but not limited to the following:
 - 1. The date, place as defined in the permit, and time of sampling or measurements;
 - 2. The date(s) analyses were performed;
 - 3. The name of the company or entity that performed the analyses;
 - 4. A description of the analytical techniques or methods used;
 - 5. The results of such analyses; and
 - 6. The operating conditions as existing at the time of sampling or measurement.
- B. The Permittee shall retain records of all required monitoring data and support information for a period of at least 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.
- C. All required records shall be maintained either in an unchangeable electronic format or in a handwritten logbook utilizing indelible ink.

13. Reporting Requirements

[PCC 17.12.040.A.5]

The Permittee shall submit the following reports:

- A. Compliance Certification pursuant to section 7 above.
- B. Excess emission; permit deviation, and emergency reports in accordance with section 11 above.
- C. Performance test results in accordance with section 17.F. below.
- D. Other reports required by any condition in Part B of this permit.

14. Duty to Provide Information

[PCC 17.12.040.A.8.e, PCC 17.12.010.G, & PCC 17.12.010.H, SIP Rule 621]

- A. The Permittee shall furnish to the Control Officer, within a reasonable time, any information that the Control Officer 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 Control Officer 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.

- 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. In addition, an applicant shall provide additional information as necessary to address any requirements that become applicable to the source after the date it filed a complete application but prior to release of a proposed permit.

15. Permit Amendment or Revision

[PCC 17.12.100, PCC 17.12.110 & PCC 17.12.120]

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 16 below as follows:

- A. Administrative Permit Amendment (PCC 17.12.100);
- B. Minor Permit Revision (PCC 17.12.110);
- C. Significant Permit Revision (PCC 17.12.120).

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

16. Facility Changes Allowed without Permit Revisions

[PCC 17.12.090]

- A. The Permittee may make changes at the permitted source without a permit revision if all of the following apply:
 - 1. The changes are not modifications under any provision of Title I of the Clean Air Act (Air Pollution Prevention and Control) or under modifications as defined in A.R.S. 49-401.01;
 - 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;
 - 3. The changes do not violate any applicable requirements or trigger any additional applicable requirements;
 - 4. The changes satisfy all requirements for a minor permit revision under PCC 17.12.110; and
 - 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.
- 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 16.A, D and E below.
- C. Except for sources with authority to operate under general permits, permitted sources may trade increases and decreases in emissions within the permitted facility, as established in the permit under PCC 17.12.040.A.12 if an applicable implementation plan provides for the emissions trades, without applying for a permit revision and based on the seven working days' notice prescribed in section 16.D below. This provision is available if the permit does not provide for the emissions trading as a minor permit revision.

- D. For each change under conditions 16.A through C above, a written notice, by certified mail or hand delivery, shall be received by the Control Officer and the Administrator a minimum of seven (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, or if advance notification is not practicable as soon after the change as possible.
- E. Each notification shall include:
 - 1. When the proposed change will occur;
 - 2. A description of the change;
 - 3. Any change in emissions of regulated air pollutants;
 - 4. The pollutants emitted subject to the emissions trade, if any;
 - 5. The provisions in the implementation plan that provide for the emissions trade with which the source will comply and any other information as may be required by the provisions in the implementation plan authorizing the trade;
 - 6. If the emissions trading provisions of the implementation plan are invoked, then the permit requirements with which the source will comply; and
 - 7. Any permit term or condition that is no longer applicable as a result of the change.
- F. The permit shield described in Condition 20 shall not apply to any change made under this section. Compliance with the permit requirements that the source will meet using the emissions trade shall be determined according to requirements of the implementation plan authorizing the emissions trade.
- G. Except as otherwise provided for in the permit, making a change from one alternative operating scenario to another as provided under PCC 17.12.040.A.11 shall not require any prior notice under this section.
- H. Notwithstanding any other part of this section, the Control Officer may require a permit to be revised for any change that when considered together with any other changes submitted by the same source under the provisions of this condition over the term of the permit, do not satisfy the conditions in 16.A above.

17. Testing Requirements

[PCC 17.11.210]

- A. New sources required to conduct performance testing shall do so within 60 days after the source has achieved the capability to operate at its maximum production rate on a sustained basis but no later than 180 days after initial startup of such sources. The Permittee shall conduct performance testing as specified in Part B of the permit and at such other times as may be required by the Control Officer. The Permittee shall furnish the control officer a written report or the results of the tests.

B. Operational Conditions During Testing

Performance tests shall be conducted while the unit is operating at full load under representative operational conditions unless other conditions are required by the applicable test method or in this permit. With prior written approval from the Control Officer, testing may be performed at a lower rate. Operations during start-up, shutdown, and malfunction (as defined in PCC 17.04.340.A) shall not constitute representative operational conditions unless otherwise specified in the applicable requirement.

C. Tests shall be conducted and data reduced in accordance with the test methods and procedures contained in the Arizona Testing Manual, 40 CFR 52; Appendices D and E, 40 CFR 60; Appendices A through F; and 40 CFR 61, Appendices B and C unless modified by the Control Officer pursuant to PCC 17.11.210.B or by the Director pursuant to A.A.C. R18-2-312.B.

D. Test Plan

At least 14 calendar days prior to performing a test, the Permittee shall submit a test plan to the Control Officer, in accordance with PCC 17.11.210.D and the Arizona Testing Manual. This test plan must include the test duration, test location(s), test methods, and source operation and other parameters that may affect the test results.

E. Stack Sampling Facilities

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

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 Control Officer's approval, be determined using the arithmetic mean of the results of the other two runs. If the Control Officer or the Control Officer's designee is present, tests may only be stopped with the Control Officer's or such designee's approval. If the Control Officer or the Control Officer'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.

G. Report of Final Test Results

A written report of the results of all performance tests shall be submitted to the Control Officer within 30 days after the test is performed. The report shall be submitted in accordance with the Arizona Testing Manual and PCC 17.11.210.A.

18. Property Rights

[PCC 17.12.040.A.8.d]

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

19. Severability Clause

[PCC 17.12.040.A.7]

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.

20. Permit Shield

[PCC 17.11.080]

Compliance with the conditions of this permit shall be deemed compliance with any applicable requirement identified in the permit as of the date of permit issuance, provided that such applicable requirements are included and expressly identified in the permit. The permit shield shall not apply to any change made pursuant to conditions 15.B and 16 above.

21. Accident Prevention Requirements Under the Clean Air Act (CAA Section 112(r))

Should this stationary source, as defined in 40 CFR Part 68.3, become subject to the accidental release prevention regulations in Part 68, then the Permittee shall submit a risk management plan (RMP) by the date specified in Section 68.10 and shall certify compliance with the requirements of Part 68 as part of the annual compliance certification as required by 40 CFR Part 70 and Part B of this permit.

22. Asbestos Requirements (Demolition/ Renovation)

[40 CFR 61, Subpart M]

Should this stationary source, pursuant to 40 CFR 61, Subpart M become subject to the National Emission Standards for Hazardous Air Pollutants - Asbestos regulations when conducting any renovation or demolition at this premises, then the Permittee shall submit proper notification as described in 40 CFR Subpart M and shall comply with all other applicable requirements of subpart M. The Permittee shall keep a record of all relevant paperwork on file.

23. Stratospheric Ozone Depleting Substances

[40 CFR 82 & PCC 17.16.710]

The Permittee shall not use, sell, or offer for sale any fluid as a substitute material for use in any motor vehicle, residential, commercial, or industrial air conditioning system, refrigerator or freezer unit, or other cooling or heating device designed to use a chlorofluorocarbon (CFC) or hydrochlorofluorocarbon (HCFC) compound as a working fluid, unless such fluid has been approved for sale and such use by the Administrator. The Permittee shall keep a record of all paperwork relevant to the applicable requirements of 40 CFR 82, Subpart F onsite.

24 [Reserved]**25 [Reserved]**

PART B**SPECIFIC CONDITIONS for TURBINES**

(All references are to Title 17 of the Pima County Code unless otherwise noted)

26. Applicability

[PCC 17.11.090]

The source covered by this permit constitutes a major source of NO_x & CO and a true minor source of all other criteria pollutants and HAPs based on 8760 hours per year of operation and considering emissions from other emission units of the same SIC Code at this facility. Equipment specifically addressed by the permit is listed in Attachment 2, "Equipment List" and is for the operation of natural gas-fired turbines for pipeline compression.

Affected Emission Source Classification: **Class I; Major Stationary Source for NO_x and CO; True minor for all other pollutants.**

27. Emission Limits/Standards

[PCC 17.12.040.A.2]

A. Particulate Matter Standard

The Permittee shall not cause, allow or permit the emission of particulate matter, caused by combustion of fuel, from any stationary gas turbine having a heat input rate of 4200 million Btu per hour or less in excess of the amounts calculated by the following equation:

[SIP Rule 332 & PCC 17.16.340.C.1]

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

where:

- E = the maximum allowable particulate emissions rate in pounds-mass per hour.
Q = the heat input in million Btu per hour.

B. Visibility Limiting Standards

1. The Permittee shall not cause, allow or permit to be emitted into the atmosphere from any stationary gas turbine, smoke for any period of time greater than ten consecutive seconds which exceeds 40 percent opacity. Visible emissions when starting cold equipment shall be exempt from this requirement for the first ten minutes. [SIP Rule 321 & PCC 17.16.340.E]
2. The Permittee shall not cause or permit the airborne diffusion of visible emissions beyond the property boundary line without appropriately controlling the emissions at the point of discharge. [SIP Rule 343 & PCC 17.16.050.D]

C. Fuel Limitation

The Permittee shall combust only pipeline quality natural gas in the turbines with a sulfur content <0.80 % by weight). [PCC 17.12.040.A.2]

[Material Permit Condition]**D. Odor Limiting Standard**

1. The Permittee shall not emit gaseous or odorous materials from equipment, operations, or premises under his control in such quantities or concentrations as to cause air pollution.

[SIP Rule 344 & PCC 17.16.030]

2. Where a stack, vent or other outlet is at such a level that fumes, gas, mist, odor, smoke, vapor or any combination thereof constituting air pollution are discharged to adjoining property, the control officer may require the installation of abatement equipment or the alteration of such stack, vent or other outlet by the owner or operator thereof to a degree that will adequately dilute, reduce or eliminate the discharge of air pollution to adjoining property. [PCC 17.16.430.G]

E. Turbine Emission and Operational Limitations

1. The Permittee shall operate no more than two (2) turbines simultaneously at any time except during periods of switching and routine maintenance. Switching occurs when a third unit is placed in operation to replace an operating unit. The operating unit will cease operation when the third unit reaches operational conditions.
2. The periods of switching and routine maintenance when more than two (2) turbines are operating shall be limited to no more than 50 hours per year.
3. The rolling 12-month total NOx emissions from operation of all turbines shall not exceed 362 tons per rolling 12-month period. [40 CFR 52.21]

28. Monitoring and Recordkeeping Requirements

[PCC 17.12.040.A.3 & 4]

A. Particulate Matter Standard

A demonstration to show compliance with the emission limitation for particulate matter in condition 27.A shall not be required unless the Control Officer has reason to believe that conditions may exist which have the potential to cause a violation of the applicable requirement. The Permittee shall operate and maintain the turbines at all times - including periods of startup, shutdown, and malfunction - in a manner consistent with good air pollution control practices and established EPNG maintenance practices for minimizing emissions.

B. Visibility Limiting Standards

1. The Permittee shall conduct a visible emissions check on the exhaust stack of each turbine at least quarterly. For the purposes of this permit, a visible emissions check is verification that abnormal emissions are not present at the turbine(s) stack(s). If the turbine is not in operation at the time of the emissions check, the Permittee does not have to set the turbine in operation to conduct the visible emissions check; instead, the Permittee shall document that the turbine was not in operation. The Permittee shall also operate and maintain the turbines at all times – including periods of startup, shutdown and malfunction – in a manner consistent with good air pollution control practices and established EPNG maintenance practices. The Permittee shall record the date and time of the check, the name of the person conducting the check, the results of the check, and the type of corrective action taken (if required). All records shall be maintained for five years.
2. If the observer sees visible emissions from the turbine that, on an instantaneous basis, appears to exceed 40% or; a visible emissions plume crossing property boundaries that is greater than or equal to 20 % opacity, then the Permittee shall, if practicable, take a six-minute observation of the plume by EPA Reference Method 9 or Method ALT-082 (Digital Camera Opacity Technique). If the Permittee elects to use ALT-082 to conduct all visible emissions checks and six-minute observations of the plume, the Permittee shall be certified in the use of ALT-082. If the emissions are more than the referenced limitation and standard in condition 27.B.1 and 27.B.2 respectively, then this occurrence shall be recorded and reported as an excess emission and a permit deviation.
3. When required, the Permittee shall perform visible emissions observations in accordance with ALT-082 or EPA Method 9, Appendix A in 40 CFR 60, to demonstrate compliance with the visibility limiting standards. [PCC 17.16.040]

C. Fuel Limitation

The Permittee shall record daily the sulfur content and lower heating value of the fuel being fired in the turbines. [PCC 17.16.340.I]

[The Permittee shall be considered in compliance with the fuel limitation conditions in 27.C and 28.C of Part B by demonstrating that only pipeline quality natural gas was fired in each turbine listed. Such a demonstration may be made by making available to the Control Officer for his inspection, documentation, such as invoices or statements from the fuel supplier, showing that only pipeline quality natural gas was purchased for use in the equipment or a copy of the Federal Energy Regulatory Commission (FERC) approved Tariff agreement that limits transmission to pipeline quality natural gas of sulfur content less than 0.8 percent by weight. All records shall be maintained for five years.]

D. Odor Limiting Standard

Monitoring for odors at the facility to determine compliance with the standard in condition 27.D.1 of Part B, is not normally necessary as the use of good modern practices prevents the emission of odors beyond the property boundary. The Control Officer may ask the Permittee to test for odor emissions if the Control Officer has reasonable cause to believe a violation of a standard has been committed. [PCC 17.12.010]

E. Turbine Emission and Operational Limitations

1. The Permittee shall record the hours of operation of each turbine using the programmable logic controller.
2. Records shall be kept of the hours of switching events per 12 months consecutive. Any portion of an hour in which the third turbine is in operation shall be considered an hour of switching operation, regardless of whether the turbine is in startup, shutdown, or normal operation.
3. The rolling 12-month total NOx emissions from operation of all turbines shall be calculated monthly by the 15th day of the month. Emissions shall be calculated based on the formula below:

12 Month Rolling Total NOx Emissions

$$= \text{Annual Operating Hours} \times \text{Emission Factor} \left(\frac{\text{lb}}{\text{hr}} \right) \times \frac{1 \text{ ton}}{2000 \text{ lbs}}$$

Where:

- The emission factor used in the calculation shall be either 41.25 lb NOx/hr (from the Class I Significant Permit Revision Application dated December 2020) or the emission factor from the most recent performance test results for the specific turbine, if the performance testing has been completed for the turbine.
- Operation of a turbine in any portion of an hour is considered to be a full hour of operation for emission calculation purposes.

F. Posting of Permit & Records

The Permittee may retain all records relating to this permit, and a copy of the permit at 5151 E Broadway, Suite 1680, Tucson, AZ 85711. The Permittee shall comply with the permit posting requirements of general condition 4. of Part A. All records shall be maintained in accordance with the requirements of condition 12. of Part A.

29. Reporting Requirements

[PCC 17.12.040.A.5 & PCC 17.11.180]
[Locally Enforceable Conditions]

A. Special Reporting for the Affected Source or Process [PCC 17.12.040.A.5.b]

The Permittee shall submit notification with the timeframes required to the Control Officer of any instances of deviation from permit requirements. (Refer to condition 13 of Part A).

B. Semiannual Reports of Required Monitoring [PCC 17.12.040.A.5.a]

The Permittee shall submit a semiannual report of all required monitoring activities required by condition 28 of Part B (including all permit deviations and exceedances that have occurred during the reporting period). Semiannual reports shall be due on January 31st and July 31st of each year and shall cover the period July 1st through December 31st and January 1st through June 30th, respectively. The first semiannual report may not cover a six-month period. If there are no deviations, excursions or exceedances in a reporting period, the Permittee shall report this status.

C. Compliance Certification Reporting [PCC 17.12.040.A.5]

The Permittee shall submit an annual compliance certification to the Control Officer and the EPA Administrator pursuant to condition 7 of Part A. The compliance certification report shall be due January 31st of each year and shall cover the periods January 1st to December 31st. The first report after permit issuance may not cover a full 12-month period. All required reports shall be certified by a responsible official consistent with PCC 17.12.010(H) and PCC 17.12.080(A)(5).

D. The Permittee shall notify the Control Officer in writing within 30 days of any changes to the FERC-approved Tariff agreement relating to the fuel sulfur content and lower heating value limits that occur during the term of this permit.

E. At the time the compliance certifications pursuant to condition 7 of Part A are submitted, the Permittee shall submit the following information pertaining to each one of the natural gas fired General Electric gas turbines:

1. The hours of operation and the switching hours during the annual compliance term;
2. Until all of the performance tests pursuant to condition 30.A of this Part have been completed, the Permittee shall report the status of the testing requirement.

F. The Permittee shall report to the Control Officer any daily period during which the sulfur content of the fuel being fired in the turbine exceeds 0.8 percent. [PCC 17.16.340.J]

G. Emissions Inventory Reporting [PCC 17.12.160]

Every source subject to a permit requirement shall complete and submit to the Control Officer, when requested, an annual emissions inventory questionnaire pursuant to PCC 17.12.320 of the Pima County Code. (See condition 6 of Part A).

30. Testing Requirements

For purposes of demonstrating compliance, these test methods shall be used, provided that for the purpose of establishing whether or not the facility has violated or is in violation of any provision of this permit, nothing in this permit 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 federal requirements if the appropriate performance or compliance procedures or methods had been performed.

A. The Permittee shall conduct performance tests on each turbine. Each turbine shall be tested within 180 days after the turbine has reached the ability to operate at full load under representative operational conditions following the implementation of the proposed facility changes. All three turbine performance tests shall be completed no later than six months prior to permit expiration. Each set of performance tests required by this provision shall include all of the pollutants listed in condition 30.B of Part B. If the performance test results exceed 41.25 lb/hr NO_x or 13.15 lb/hr CO, the Permittee shall revisit the air quality impact analysis in the permit modification application submitted in February 2020 and updated in December 2020.

B. The Permittee shall use the following EPA approved reference test methods to conduct performance tests for the specified pollutants:

1. Nitrogen Oxides. EPA Reference Method 20 or Method 7E.
2. Carbon Monoxide. EPA Reference Method 10.

The Permittee may submit in a test plan an alternate and equivalent test method(s) that is listed in 40 CFR Part 60, Appendix A, to the Control Officer, for approval by the Control Officer.

C. Upon completion of each performance test, the Permittee shall submit a copy of the test report to the Control Officer, EPA Region 9 (via email to: R9airpermits@epa.gov) and to the federal land managers (via email to Debra_Miller@nps.gov and John_Notar@nps.gov).

D. Testing for odors at the facility to determine compliance with condition 27.D of Part B, is not normally necessary because the use of good modern practices prevents the emission of odors beyond the property boundary. The Control Officer may require the Permittee to test for odor emissions if the Control Officer has reasonable cause to believe a violation of a standard has been committed.

[PCC 17.20.010]

E. When required, the percentage of sulfur in fuel shall be determined by ASTM Method D-1072-90 (Test Method for Total Sulfur in Fuel Gases.)

[PCC 17.16.340.K.1.c]

31. Facility Changes

Should the Permittee desire to change the facility or operations in any way (including, but not limited to, addition of new equipment, modification of current equipment or usage of fuels not specified within this permit), the Permittee shall first submit the proper notifications and follow the required permit revision procedure pursuant to PCC 17.12.230, PCC 17.12.255, or PCC 17.12.260.

PART C

SPECIFIC CONDITIONS

for

NEW SOURCE PERFORMANCE STANDARDS (NSPS) FOR STATIONARY SPARK IGNITION

INTERNAL COMBUSTION ENGINES (SI ICE)

The following provisions apply to spark ignition (SI) emergency generators subject to NSPS, Subpart JJJJ listed in the Table in Attachment 2. The General Provisions of 40 CFR Part 60, Subpart A apply to applicable SI ICE as indicated in Table 3 of 40 CFR Part 60, Subpart JJJJ. All provisions in this Part C are federally enforceable unless otherwise noted.

Applicability

32. 40 CFR 60, Subpart JJJJ – Standards of Performance for Stationary Spark Ignition ‘SI’ Internal Combustion Engines ‘ICE’ [PCC 17.16.490.A.84]
[Federally Enforceable Conditions]

The provisions of this Part C are applicable to manufacturers, owners, and operators of stationary SI ICE as specified in 40 CFR 60.4231, 60.4233, and as shown below. For the purposes of this paragraph, the date that construction commences is the date the engine is ordered by the owner or operator.

- a. Manufacturers of stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) that are not gasoline fueled and are not rich burn engines fueled by LPG, where the manufacturer participates in the voluntary manufacturer certification program described in 40 CFR Part 60, Subpart JJJJ and where the date of manufacture is on or after January 1, 2009, for emergency engines.
- b. Owners and operators of stationary SI ICE that commence construction after June 12, 2006, where the stationary SI ICE are manufactured on or after January 1, 2009, for emergency engines with a maximum engine power greater than 19 KW (25 HP).
- c. Owners and operators of stationary SI ICE that are modified or reconstructed after June 12, 2006, and any person that modifies or reconstructs any stationary SI ICE after June 12, 2006.
- d. The installation restrictions in condition 35 are applicable to all owners and operators of stationary CI ICE that commence construction after June 12, 2006. [40 CFR 52.21]

Emission Limitations and Standards [PCC 17.12.185.A.2]

33. Operating Limitations

- a. The Permittee of an emergency stationary SI ICE combustion engine that does not meet the standards applicable to non-emergency engines must install a non-resettable hour meter on each applicable stationary SI ICE prior to startup of each engine. [40 CFR 60.4237]
- b. The Permittee shall not operate emergency stationary SI ICE subject to this Section more than 100 hours in any 12-consecutive month period for the purpose of maintenance and readiness testing, and non-emergency use as provided in condition 36. There is no time limit on the use of emergency engines in emergency situations. [PCC 17.12.350.A.3.a]

[Material Permit Condition]

- c. The Permittee shall burn only the fuel(s) specified in Attachment 2. [PCC 17.12.190 & PCC 17.12.350.a]

[Material Permit Condition]

- d. The Permittee must comply with the emission limitations in NSPS Subpart JJJJ, §§ 60.4231 and 60.4233 (as applicable) and as shown in the tables below for SI ICE emergency engines that commenced construction after June 12, 2006 (date engine was ordered), or were modified or reconstructed, with the following dates of manufacture and for the applicable engine class and maximum engine power.

[40 CFR 60.4231, 60.4233 & Table 1 to NSPS Subpart JJJJ]

Applicability for Natural Gas Emergency Engines Manufactured after 1/1/2009

MFG Date	Max. Power	Engine Class	Applicable Regulations (Emissions Req.)
On or after 1/1/2009	HP >25 HP	SI ICE (not G or RB-LPG)	40 CFR 60.4231(d),(e); 60.4233(d),(e) (Parts 90, 1048, 1054, Table 1 to Subpart JJJJ)

Emission Standards for Emergency SI ICE (Reference – Table 1 to 40 CFR, Part 60, Subpart JJJJ)

Engine Type	Maximum Engine Power	Emission Standards ^a		
		g/HP-hr or [ppmvd at 15% O ₂]		
		NO _x	CO	VOC ^b
Emergency (New)	HP ≥ 130	2.0 [160]	4.0 [540]	1.0 [86]
Emergency (Modified or Reconstructed)	HP ≥ 130	3.0 [250]	4.0 [540]	1.0 [86]

^a Owners and operators of stationary non-certified SI engines may choose to comply with the emission standards in units of either g/HP-hr or ppmvd at 15 percent O₂.

^b For purposes of 40 CFR 60, Subpart JJJJ, when calculating emissions of volatile organic compounds, emissions of formaldehyde should not be included.

^c ~~The emission standards applicable to emergency engines between 25 HP and 130 HP are in terms of NO_x+HC.~~

- e. The Permittee must operate and maintain stationary SI ICE that achieve the emission standards as required in condition 33.d over the entire life of the engine. [40 CFR 60.4234]

34. Opacity [Locally Enforceable Conditions]

- a. The Permittee shall not cause, allow, or permit the effluent from any stationary SI ICE to have an average optical density (opacity) equal to or greater than 40 percent. [PCC 17.16.040.A]

[This condition is Federally Enforceable when opacity is above 40%]

- b. The Permittee shall not cause, allow, or permit to be emitted into the atmosphere from any stationary rotating machinery, smoke for any period greater than ten consecutive seconds that exceeds 40 percent opacity. Visible emissions when starting cold equipment shall be exempt from this requirement for the first ten minutes. [PCC 17.16.340.E]

35. Installation Restrictions [40 CFR 60.4236]

- a. The Permittee may not install stationary SI ICE that do not meet the applicable requirements in 40 CFR §60.4233 after the specified dates as follows: [40 CFR 4236(a)-(c)]

- i. For stationary SI ICE with a maximum engine power < 500 HP, after July 1, 2010.
- ii. For stationary SI ICE with a maximum engine power ≥ 500HP, after July 1, 2009.
- iii. For lean burn stationary SI ICE with a maximum engine power 500 ≤ HP ≤ 1350, after January 1, 2010.

- iv. For emergency stationary SI ICE with a maximum engine power > 19 KW (25 HP), after January 1, 2011.
- b. In addition to the requirements specified in 40 CFR §60.4231 and §60.4233, it is prohibited to import stationary SI ICE less than or equal to 19 KW (25 HP), stationary rich burn LPG SI ICE, and stationary gasoline SI ICE that do not meet the applicable requirements specified in condition 35.a, after the dates specified in condition 35.a. [40 CFR 60.4236(d)]
- c. The requirements of condition 35 do not apply to stationary SI ICE that have been modified or reconstructed, and they do not apply to engines that were removed from one existing location and reinstalled at a new location. [40 CFR 60.4236(e)]

36. Emergency Designation

The Permittee must operate the emergency ICE according to the requirements in conditions 36.a through c. In order for the engine to be considered an emergency stationary ICE, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in conditions 36.a through c is prohibited. If the Permittee does not operate the engine according to the requirements in conditions 36.a through c, the engine will not be considered an emergency engine and will need to meet all requirements for non-emergency engines. [40 CFR 60.4243(d)]

- a. There is no time limit on the use of emergency ICE in emergency situations. [40 CFR 60.4243(d)(1)]
- b. The Permittee may operate the subject emergency ICE as specified in condition 36.b.i for a maximum of 100 hours per calendar year. Any operation for non-emergency situations, as allowed in condition 36.c, counts as part of the 100 hours per calendar year allowed by this paragraph. [40 CFR 60.4243(d)(2)]
 - i. The subject emergency ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The Permittee may petition the Control Officer 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 Federal, State, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year. [40 CFR 60.4243(d)(2)(i)]
 - ~~ii. Emergency ICE may be operated for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies (incorporated by reference, see §63.14), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3. [40 CFR 63. 60.4243(d)(2)(ii)]~~
[Vacated by U.S. Court of Appeals for the District of Columbia in Delaware vs EPA, May 4, 2016]
 - ~~iii. Emergency ICE may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency. [40 CFR 60.4243(d)(2)(iii)]~~
[Vacated by U.S. Court of Appeals for the District of Columbia in Delaware vs EPA, May 4, 2016]
- c. The Permittee may operate the subject emergency ICE up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted towards the 100 hours per calendar year provided for maintenance and testing and emergency demand response provided in condition 36.b. Except as provided in condition 36.c.i, the 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity. [40 CFR 60.4243(d)(3)]

- i. The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met: [40 CFR 60.4243(d)(3)]
- (a) The engine is dispatched by the local balancing authority or local transmission and distribution system operator.
 - (b) The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region.
 - (c) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines.
 - (d) The power is provided only to the facility itself or to support the local transmission and distribution system.
 - (e) The Permittee identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the Permittee.

Compliance Determination

[PCC 17.12.185.A.3, 4 & 5]

37. The Permittee must demonstrate compliance with the emission standards specified in condition 33.d according to the following: [40 CFR 60.4243(b)]
- a. Purchasing an engine certified according to procedures specified in 40 CFR Part 60, Subpart JJJJ, for the same model year and demonstrating compliance according to condition 37.a.i or 37.a.ii as follows: [40 CFR 60.4243(b)(1)]
 - i. For certified stationary SI ICE and control devices that are operated and maintained according to the manufacturer's emission-related written instructions;

The Permittee must keep records of conducted maintenance to demonstrate compliance, but no performance testing is required. The Permittee must meet the requirements as specified in 40 CFR 1068, subparts A through D, as they apply. If engine settings are adjusted according to and consistent with the manufacturer's instructions, the stationary SI ICE will not be considered out of compliance. [40 CFR 60.4243(a)(1)]
 - ii. For certified stationary SI ICE and control devices that are not operated and maintained according to the manufacturer's emission-related written instructions;

The engine is considered a non-certified engine, and the Permittee must demonstrate compliance according to condition 37.a.ii.(a) through (b), as appropriate. [40 CFR 60.4243(a)(2)]

 - (a) For stationary SI ICE, $100 \leq \text{HP} \leq 500$;

The Permittee must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, the Permittee must conduct an initial performance test within 1 year of engine startup to demonstrate compliance. [40 CFR 60.4243(a)(2)(ii)]

(b) For stationary SI ICE > 500 HP;

The Permittee must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, the Permittee must conduct an initial performance test within 1 year of engine startup and conduct subsequent performance testing every 8,760 hours or 3 years, whichever comes first, thereafter to demonstrate compliance. [40 CFR 60.4243(a)(2)(iii)]

b. For stationary SI ICE \leq 500 HP;

If the Permittee purchases a non-certified engine, or the Permittee does not operate and maintain a certified stationary SI ICE and control device according to the manufacturer's written emission-related instructions, the Permittee is required to perform initial performance testing as indicated in condition 37.a.ii, but the Permittee is not required to conduct subsequent performance testing unless the stationary engine is rebuilt or undergoes major repair or maintenance. A rebuilt stationary SI ICE means an engine that has been rebuilt as that term is defined in 40 CFR 94.11(a). [40 CFR 60.4243(f)]

- c. The Permittee may operate their stationary SI natural gas fired engines using propane for a maximum of 100 hours per year as an alternative fuel solely during emergency operations, but must keep records of such use. If propane is used for more than 100 hours per year in an engine that is not certified to the emission standards when using propane, the Permittee is required to conduct a performance test to demonstrate compliance with the emission standards in condition 33.b. [40 CFR 60.4243(e) & 40 CFR 60.4233]
- d. It is expected that air-to-fuel ratio (AFR) controllers will be used with the operation of three-way catalysts/non-selective catalytic reduction. The AFR controller must be maintained and operated appropriately in order to ensure proper operation of the engine and control device to minimize emissions at all times. [40 CFR 60.4243(g)]

38. Opacity

A demonstration to show compliance with the emission limitation for opacity in condition 34 shall not be required since the percent of opacity of visible emissions from the stationary SI ICE while combusting natural gas fuel is inherently low. The Permittee shall operate and maintain the stationary SI ICE at all times - including periods of startup, shutdown, and malfunction - in a manner consistent with good air pollution control practices and consistent with manufacturer's guidelines. [PCC 17.12.185.A.3]

39. Fuel Limitation

The Permittee shall be considered in compliance with the fuel limitation in condition 33.c by demonstrating that only commercially available pipeline quality natural gas was fired in the stationary SI ICE listed. Such a demonstration may be made by making available to the Control Officer for his inspection, documentation, such as invoices or statements from the fuel supplier, showing that only commercial natural gas was purchased for use in the equipment or a copy of the Federal Energy Regulatory Commission (FERC) approved Tariff agreement that limits transmission to pipeline quality natural gas of sulfur content less than 0.8 percent by weight. [PCC 17.12.185.A.3]

40. Notifications, Reports and Records

- a. The Permittee must keep records of the information in paragraphs i through iv. [40 CFR 60.4245(a)]
- i. All notifications submitted to comply with this Part C and all documentation supporting any notification.
- ii. Records of conducted operation and maintenance to demonstrate compliance.

- iii. If the stationary SI internal combustion engine is a certified engine, documentation from the manufacturer that the engine is certified to meet the emission standards and information as required in 40 CFR Parts 90 and 1048, 1054, and 1060, as applicable.
 - iv. If the stationary SI internal combustion engine is not a certified engine or is a certified engine operating in a non-certified manner and subject to condition 37.a.ii, documentation that the engine meets the emission standards. [40 CFR 60.4245(a)(4) & 40 CFR 60.4243(a)(2)]
- b. The Permittee must keep the following run hour records:
- i. For each subject SI ICE identified as having an operational limitation in the permit equipment list, the Permittee shall record the monthly operating hours and recalculate a rolling twelve (12) month total within 10 calendar days of the end of the month. The rolling 12 month total shall be submitted with the compliance certifications pursuant to condition 7 of Part A. [PCC 17.12.185.A.3 & 4]
[Locally Enforceable Condition]
 - ii. The Permittee must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The Permittee must 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 60.4245(b)]

41. SI ICE Performance Testing

If required to conduct performance testing, the Permittee must follow the procedures in paragraphs (a) through (f) of 40 CFR 60.4244. [40 CFR 60.4244(a)]

42. Reporting for Performance Testing

For all SI ICE that are subject to performance testing, the Permittee must submit a copy of each performance test as conducted in 40 CFR §60.4244 within 60 days after the test has been completed. Performance test reports using EPA Method 18, EPA Method 320, or ASTM D6348-03 (incorporated by reference - see 40 CFR 60.17) to measure VOC require reporting of all QA/QC data. For Method 18, report results from sections 8.4 and 11.1.1.4; for Method 320, report results from sections 8.6.2, 9.0, and 13.0; and for ASTM D6348-03 report results of all QA/QC procedures in Annexes 1-7. [40 CFR 60.4245(d)]

43. Annual Report to EPA

If you own or operate an emergency stationary SI ICE with a maximum engine power more than 100 HP that operates or is contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in condition 36.c, you must submit an annual report according to the requirements in paragraphs (a) through (c) of this condition. [40 CFR 4245(e)]

- a. The report must contain the following information:
- i. Company name and address where the engine is located.
 - ii. Date of the report and beginning and ending dates of the reporting period.
 - iii. Engine site rating and model year.
 - iv. Latitude and longitude of the engine in decimal degrees reported to the fifth decimal place.
 - v. ~~Hours operated for the purposes specified in §60.4243(d)(2)(ii) and (iii), including the date, start time, and end time for engine operation for the purposes specified in §60.4243(d)(2)(ii) and (iii).~~

[Vacated by U.S. Court of Appeals for the District of Columbia in Delaware vs EPA, May 4, 2016]

~~vi. Number of hours the engine is contractually obligated to be available for the purposes specified in §60.4243(d)(2)(ii) and (iii).~~

[Vacated by U.S. Court of Appeals for the District of Columbia in Delaware vs EPA, May 4, 2016]

- vii. Hours spent for operation for the purposes specified in condition 36.c.i, including the date, start time, and end time for engine operation for the purposes specified in condition 36.c.i. The report must also identify the entity that dispatched the engine and the situation that necessitated the dispatch of the engine.
- b. The annual report must be submitted no later than March 31 of the following calendar year.
- c. The annual report must be submitted electronically using the subpart specific reporting form in the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (www.epa.gov/cdx). However, if the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, the written report must be submitted to the Administrator at the appropriate address listed in §60.4.

43-45. [Reserved]

ATTACHMENT 1: APPLICABLE REGULATIONS

Requirements Specifically Identified as Applicable

Compliance with the terms contained in this permit shall be deemed compliance with the following *federally applicable requirements* in effect on the date of permit issuance:

Pima County SIP:

Rule 321	Emissions-Discharge Opacity Limiting Standards Standards and Applicability (Includes NESHAPS)
Rule 332	Compilation of Mass Rates and Concentrations (Includes NESHAPS)
Rule 343	Visibility Limiting Standard
Rule 344	Odor Limiting Standards

Compliance with the terms contained in this permit shall be deemed compliance with the following *non-federally applicable requirements* in effect on the date of permit issuance:

Pima County Code (PCC) Title 17, Chapter 17.16.:

17.16.010	Local Rules and Standards – Applicability of More Than One Standard
17.16.020	Noncompliance with Applicable Standards
17.16.030	Odor Limiting Standards
17.16.040	Standards and applicability (includes NESHAP)
17.16.050	Visibility Limiting Standard
17.16.060	Fugitive Dust Producing Activities
17.16.080	Vacant Lots and Open Spaces
17.16.090	Roads and Streets
17.16.100	Particulate Materials
17.16.110	Storage Piles
17.16.130	Applicability
17.16.340	Standards of Performance for Stationary Rotating Machinery
17.16.400	Organic Solvents and Other Organic Materials
17.16.450	Off-Road Machinery
17.16.470	Roadway and Site Cleaning Machinery

Pima County Code (PCC) Title 17, Chapter 17.20:

17.20.010	Source Sampling, Monitoring and Testing
17.20.040	Concealment of Emissions

Pima County Code (PCC) Title 17, Chapter 17.24:

17.24.020	Recordkeeping for Compliance Determination
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40 CFR, Part 60 Standards of Performance for New Stationary Sources

Subpart A	General Provisions
Subpart JJJJ	NSPS for Stationary Spark Ignition Internal Combustion Engines
Appendix A	Test Methods

Requirements Specifically Identified As Not Applicable

As requested by the Permittee, specific non-applicable requirements have been identified as follows. A permit shield is granted from these requirements.

40 CFR 60, Subpart GG - New Source Performance Standards - Stationary Gas Turbines
PCC 17.16.490 - New Source Performance Standards - Stationary Gas Turbines

The permit shield becomes void if the emission unit is modified (as defined in 40 CFR 60.14) or reconstructed (as defined in 40 CFR 60.15) since the effective date of the above New Source Performance Standard.

ATTACHMENT 2

EQUIPMENT LIST

Unit ID	Type Of Equipment	Make	Model	Serial Number	Maximum Rated Capacity Hp ¹ (Fuel rate) ²	Fuel Type	Date of Installation
A-1	Turbine	General Electric	GE M3002-RA	95062	4976 Hp (58.19 MM Btu/hr)	Natural Gas	September 1953
A-2	Turbine	General Electric	GE M3002-RA	95065	4976 Hp (58.19 MM Btu/hr)	Natural Gas	October 1953
A-3	Turbine	General Electric	GE M3002-RA	95067	4976 Hp (58.19 MM Btu/hr)	Natural Gas	November 1953
Aux-1	Emergency Generator	TBD	TBD	TBD	750 KW	Natural Gas	TBD

¹ Indicates nominal site horsepower at 80 F