

**PIMA COUNTY DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR PROGRAM**

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

AIR QUALITY PERMIT

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

ISSUED TO

**UNIVERSITY OF ARIZONA
(MAIN CAMPUS)
TUCSON, ARIZONA**

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

THIS PERMIT ISSUED SUBJECT TO THE SPECIFIC CONDITIONS IDENTIFIED IN THIS PERMIT.

PERMIT NUMBER 2371

PERMIT CLASS I

ISSUED: February 10, 2016

EXPIRES: February 9, 2021

Revised: June 14, 2017



SIGNATURE

Rupesh Patel, Air Permit Manager, PDEQ

TITLE

SUMMARY

This air quality permit is issued to the University of Arizona (Main Campus) (herein known as the facility) for the operation of various pollutant-emitting equipment (emissions sources). The emission sources at the facility include:

- natural gas-fired boilers;
- diesel-fired emergency generators;
- natural gas-fired emergency generators;
- diesel-fired non-emergency generators;
- natural gas-fired turbines;
- a single pathological waste incinerator;
- A single confined paint spray booth, and,

The facility has voluntary operating limitations for specific emergency generators. These limitations are identified in the permit. A summary of the facility's annual potential to emit (PTE) emissions of regulated pollutants are presented in the table below.

These figures are for informational purposes only and are used to establish the "baseline" emissions for the source. They are not intended for direct enforcement unless specified in the conditions of this permit as an enforceable emissions limitation by rule or as a voluntary accepted condition(s) by the Permittee. The figures were a result of information contained in the renewal application submitted August 2014.

Emission Source	Regulated Pollutant							
	PM	PM ₁₀	PM _{2.5}	NO _x	SO ₂	CO	VOC	HAPs (Total)
Facility Wide Actual Emissions	17.94	17.94	17.94	116.91	5.38	75.51	11.97	4.03

Note: Particulate matter emissions are assumed to be predominately of PM_{2.5} size fraction.

Detailed emission calculations are provided in the renewal application dated August 2014. The actual emissions include emissions changes due to the upgrade of the combustion turbine. Based on these estimates, the facility is a Class I, Major Source for NO_x and a true minor for all other pollutants.

All terms and conditions of this permit are Federally Enforceable by the Administrator of the United States Environmental Protection Agency (U.S.EPA) under the Clean Air Act, except as otherwise noted.

TABLE OF CONTENTS

Summary..... 2

Part A: General Provisions..... 6

 I. Permit Expiration and Renewal..... 6

 II. Compliance with Permit Conditions..... 6

 III. Permit Revision, Reopening, Revocation and Reissuance, or Termination for Cause..... 6

 IV. Posting of Permit..... 7

 V. Fee Payment..... 7

 VI. Annual Emissions Inventory Questionnaire..... 7

 VII. Compliance Certification..... 7

 VIII. Certification of Truth, Accuracy and Completeness..... 8

 IX. Inspection and Entry..... 8

 X. Permit Revision Pursuant to Federal Hazardous Air Pollutant Standard..... 8

 XI. Excess Emissions, Permit Deviations, And Emergency Reporting..... 10

 XII. Record Keeping Requirements..... 13

 XIII. Reporting Requirements..... 13

 XIV. Duty to Provide Information..... 13

 XV. Permit Amendment or Revision..... 14

 XVI. Facility Changes Allowed Without Permit Revisions..... 14

 XVII. Testing Requirements..... 15

 XVIII. Property Rights..... 16

 XIX. Severability Clause..... 16

 XX. Accident Prevention Requirements Under the Clean Air Act (CAA Section 112(r))..... 16

 XXI. Asbestos Requirements (Demolition / Renovation)..... 17

 XXII. Stratospheric Ozone Depleting Substances..... 17

Part B: Specific Conditions

 Applicability..... 18

Category A: New Source Performance Standards (NSPS) for Small Industrial - Commercial - Institutional Steam Generating Units (40 CFR Part 60, Subpart Dc)

 I. Emission Limitations and Standards..... 19

 II. Monitoring Requirements..... 19

 III. Recordkeeping Requirements..... 19

 IV. Reporting Requirements..... 20

 V. Testing Requirements..... 20

Category B: New Source Performance Standards (NSPS) for Stationary Gas Turbines (40 CFR Part 60, Subpart GG)

 I. Emission Limitations and Standards..... 21

 II. Monitoring Requirements..... 22

 III. Recordkeeping Requirements..... 22

 IV. Reporting Requirements..... 22

 V. Testing Requirements..... 22

New Source Performance Standards (NSPS) for Stationary Compression Ignition Internal Combustion Engines (CI ICE) (40 CFR Part 60, Subpart III) (Non-Emergency CI ICE)

Category D: New Source Performance Standards (NSPS) for Stationary Compression Ignition Internal Combustion Engines (CI ICE) (40 CFR Part 60, Subpart III) Emergency (non fire-pump) (CI ICE)

I.	Applicability.....	25
II.	Operational Limitations.....	27
III.	Monitoring Requirements.....	28
IV.	Recordkeeping Requirements.....	28
V.	Reporting Requirement.....	29
VI.	Testing Requirements.....	29
VII.	Additional Requirements.....	29

Category E: New Source Performance Standards (NSPS) for Stationary Spark Ignition Internal Combustion Engines (SI ICE) (40 CFR Part 60, Subpart JJJJ): (Emergency SI ICE > 25 HP, manufactured after January 1, 2009)

I.	Applicability.....	30
II.	Operational Limitations.....	30
III.	Recordkeeping Requirements.....	31
IV.	Reporting Requirements.....	31
V.	Testing Requirements.....	31
VI.	Additional Requirements.....	31

Category F: National Emission Standards for Hazardous Air pollutants for Stationary Reciprocating Internal Combustion Engines (RICE) For Non-Emergency CI ≤ 300 HP

I.	Applicability.....	32
II.	Emission Limitations and Standards.....	32
III.	General Compliance Requirements.....	33
IV.	Monitoring, Installation, Collection and Maintenance Requirements.....	33
V.	Recordkeeping Requirements.....	34
VI.	Reporting Requirements.....	35
VII.	Testing Requirements.....	35

Category G: New and Existing Stationary Source Performance Standards for Internal Combustion Engines, Compression and Spark Ignition. (Locally Enforceable Conditions, unless otherwise stated)

I.	Emission Limitations and Standards.....	36
II.	Monitoring Requirements.....	37
III.	Recordkeeping Requirements.....	38
IV.	Reporting Requirements.....	38
V.	Testing Requirements.....	39

Category H: New and Existing Stationary Source Performance Standards for Fossil-Fuel Fired Industrial and Commercial Equipment (Boilers, not subject to NSPS)
(Locally Enforceable Conditions, unless otherwise stated)

I.	Emission Limitations and Standards.....	40
II.	Monitoring Requirements.....	41
III.	Recordkeeping Requirements.....	41
IV.	Reporting Requirements.....	41
V.	Testing Requirements.....	41

Category I: New and Existing Stationary Source Performance Standards for the Pathological Incinerator
(Locally Enforceable Conditions, unless otherwise stated)

I.	Emission Limitations and Standards.....	43
II.	Monitoring Requirements.....	44
III.	Recordkeeping Requirements.....	45
IV.	Reporting Requirements.....	45
V.	Testing Requirements.....	45

Category J: New and Existing Stationary Source Performance Standards for the Surface Coating and Solvent Degreasing Activities
(Locally Enforceable Conditions, unless otherwise stated)

I.	Emission Limitations and Standards.....	47
II.	Monitoring Requirements.....	47
III.	Reporting Requirements.....	48
IV.	Testing Requirements.....	48

Category K: New Source Performance Standards (NSPS) for Combustion Turbines
(40 CFR Part 60, Subpart KKKK)

I.	Emission Limitations and Standards.....	49
II.	Monitoring Requirements.....	49
III.	Recordkeeping Requirements.....	49
IV.	Reporting Requirements.....	49
V.	Testing Requirements.....	49

Category L: General Facility-Wide Specific Standards

I.	General Facility-Wide Specific Conditions.....	49
II.	Recordkeeping Requirements.....	49
III.	Reporting Requirements.....	50
IV.	Testing Requirements.....	50

Attachment 1: Applicable Regulations..... 51

Attachment 2: Equipment List..... 53

PART A: GENERAL PROVISIONS

(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)

I. PERMIT EXPIRATION AND RENEWAL

[PCC 17.12.180.A.1 & PCC 17.12.160.D.1]

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

II. COMPLIANCE WITH PERMIT CONDITIONS

[PCC 17.12.180.A.8.a & b]

- A. The Permittee shall comply with all conditions of this permit including all applicable requirements of Arizona air quality statutes A.R.S. Title 49, Chapter 3, and Pima County air quality rules. Any permit noncompliance 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.

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

[PCC 17.12.180.A.8.c & PCC 17.12.270]

- 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, or 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 major source with a remaining permit term of three or more years. Such a reopening shall be completed not 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 its terms and conditions has been extended pursuant to PCC 17.12.280.B. Any permit reopening required pursuant to this paragraph shall comply with provisions in PCC 17.12.280 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 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 affect only those parts of the permit for which cause to reopen exists. Such reopenings shall be made as expeditiously as practicable. Permit reopenings for reasons other than those stated in paragraph III.B.1 of Part A shall not result in the resetting of the five-year permit term.

IV. POSTING OF PERMIT

[PCC 17.12.080]

The Permittee who has been granted a permit or an Authorization to Operate (ATO) by PDEQ shall maintain a complete copy of the permit and ATO onsite. If it is not feasible to maintain a copy of the permit or 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.

V. FEE PAYMENT

[PCC 17.12.180.A.9 & PCC 17.12.510]

The Permittee shall pay fees to the Control Officer pursuant to PCC 17.12.510.

VI. ANNUAL EMISSIONS INVENTORY QUESTIONNAIRE

[PCC 17.12.320]

- A. When requested by the Control Officer, the Permittee shall complete and submit an annual emissions inventory questionnaire. The questionnaire is due by March 31 or ninety days after the Control Officer makes the 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 17.12.320.

VII. COMPLIANCE CERTIFICATION

[PCC 17.12.220.A.2]

The Permittee shall submit to the Control Officer a compliance certification that describes the compliance status of the source with respect to each permit condition. Certifications shall be submitted as 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 of the source 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 the monitoring, related recordkeeping and reporting sections of this permit. If necessary, the owner or operator 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 identify each deviation and take it into account in the compliance certification.
 4. For emission units subject to 40 CFR 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 64 occurred.
 5. A progress report on all outstanding compliance schedules submitted pursuant to PCC 17.12.220; 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 address for the EPA Administrator is:

EPA Region 9 Enforcement Office, 75 Hawthorne St (Air-5), San Francisco, CA 94105

VIII. CERTIFICATION OF TRUTH, ACCURACY AND COMPLETENESS [PCC 17.12.220.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.

IX. INSPECTION AND ENTRY [PCC 17.12.220.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 or 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.

X. PERMIT REVISION PURSUANT TO FEDERAL HAZARDOUS AIR POLLUTANT STANDARD [PCC 17.12.160.D.3]

If this source becomes subject to a standard promulgated by the Administrator pursuant to section 112(d) of the Clean Air Act (Hazardous Air Pollutants), 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.

XI. EXCESS EMISSIONS, PERMIT DEVIATIONS, AND EMERGENCY REPORTING [PCC 17.12.040]

A. Excess Emissions Reporting [PCC 17.12.040]

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. The report shall be in 2 parts as specified below:

- i. Notification by telephone or facsimile within 24 hours of the time the Permittee first learned of the occurrence of excess emissions that includes all available information from PCC 17.12.040.B. The number to call to report excess emissions is **520-724-7400**. The facsimile number to report excess emissions is **520-838-7432**.
- ii. Detailed written notification by submission of an excess emissions report within 72 hours of the notification under XI.A.1.a.i of Part A. Notifications should be sent to:

PDEQ Air Program 33 N. Stone Ave, Suite 730, Tucson, Arizona 85701.

b. The excess emission report shall contain the following information:

- i. The identity of each stack or other emission point where the excess emission occurred;
- ii. The 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. The time and duration or expected duration of the excess emissions;
- iv. The identity of the equipment from which the excess emissions emanated;
- v. The nature and cause of the emissions;
- vi. The steps taken, if the excess emissions were the result of a malfunction, to remedy the malfunction and the steps taken or planned to prevent the recurrence of the malfunctions; and
- vii. The steps that were or are being taken to limit the excess emissions; If the source's permit contains procedures governing source operation during periods of startup or malfunction and the excess emissions resulted from startup or malfunction, a list of the steps taken to comply with the 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 the 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 XI.A.1.a & b of Part A.

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. Notice within 2 working days shall be considered prompt for purposes of this permit.

[PCC 17.12.180.A.5.b & PCC 17.12.180.E.3.d]

C. Emergency Provision

[PCC 17.12.180.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 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 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 the conditions of PCC 17.12.180.E.3 are 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. At the time of the emergency, the permitted facility was being properly operated;
 - 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, hand delivery, or facsimile transmission 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 17.12.035]

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. E.P.A., 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. The Permittee of a source with emissions in excess of an applicable emission limitation due to malfunction 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 owner or operator of the source has complied with the reporting requirements of XIII.B of this Part 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 operator;
- 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 owner or operator 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 XI.E.3.b of Part A, 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. The Permittee of a source with emissions in excess of an applicable emission limitation due to startup and shutdown 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 owner or operator of the source has complied with the reporting requirements of XIII.B of Part A 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. The Permittee's actions in response to the excess emissions were documented by contemporaneous records.
 - 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 XI.E.2 of Part A.

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 XI.E.2 of Part A.

5. Demonstration of Reasonable and Practicable Measures

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

XII. RECORD KEEPING REQUIREMENTS

[PCC 17.12.180.A.4]

- A. The Permittee shall keep records of all required monitoring information including recordkeeping requirements established pursuant to PCC 17.12.190, where applicable, for 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 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.

XIII. REPORTING REQUIREMENTS

[PCC 17.12.180.A.5]

The Permittee shall comply with all of the reporting requirements of this permit. These include all of the following:

- A. Compliance certifications pursuant to VII of Part A.
- B. Excess emissions; permit deviations, and emergency reports in accordance with XI of Part A.
- C. Performance test results in accordance with XVII.F of Part A.
- D. Reporting requirements listed in Part B of this permit.

XIV. DUTY TO PROVIDE INFORMATION

[PCC 17.12.180.A.8.e, PCC 17.12.160.G, & PCC 17.12.160.H]

- 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, for Class I sources, 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 if the Permittee 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.

XV. PERMIT AMENDMENT OR REVISION

[PCC 17.12.245, PCC 17.12.255 & PCC 17.12.260]

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 XVI of Part A, as follows:

- A. Administrative Permit Amendment (PCC 17.12.245);
- B. Minor Permit Revision (PCC 17.12.255);
- C. Significant Permit Revision (PCC 17.12.260).

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

XVI. FACILITY CHANGES ALLOWED WITHOUT PERMIT REVISIONS

[PCC 17.12.230]

- A. A facility with a Class I permit may make changes 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 17.12.255; 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 the substitution meets all of the requirements of XVI.A, D and E of Part A.
- 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 17.12.180.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 XVI.D of Part A. This provision is available if the permit does not provide for the emissions trading as a minor permit revision.
- D. For each change under XVI.A through C of Part A, 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 PCC 17.12.310 shall not apply to any change made under XVI.A through C of this Part. 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 17.12.180.A.11 shall not require any prior notice under XVI Part A.
- 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 PCC 17.12.230 over the term of the permit, do not satisfy XVI.A of this Part.

XVII. TESTING REQUIREMENTS

[PCC 17.12.050]

A. 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.

- B. 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 17.12.050.B.

C. 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 17.12.050.D and the Arizona Testing Manual.

D. 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.

E. 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 means of 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.

F. 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.

XVIII. PROPERTY RIGHTS

[PCC 17.12.180.A.8.d]

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

XIX. SEVERABILITY CLAUSE

[PCC 17.12.180.A.7]

The provisions of this permit are severable. In the event of a challenge to any portion of this permit that results in any provision of this permit being held invalid, the remainder of this permit shall not be affected thereby.

XX. 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.

XXII. ASBESTOS REQUIREMENTS (Demolition/ Renovation)

Should this stationary source, pursuant to 40 CFR 61, Subpart M become subject to the National Emission Standards for Hazardous Air Pollutants - Asbestos for 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. [40 CFR 61, Subpart M]

XXIII. STRATOSPHERIC OZONE DEPLETING SUBSTANCES

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. [40 CFR 82 & PCC 17.16.710]

PART B: SPECIFIC PROVISIONS

[References are to Title 17 of the Pima County Code unless otherwise noted]

APPLICABILITY

Affected Emission Source or Process: **Class I; Major Source for NO_x and a True Minor Source for all other pollutants.**

This is an existing major source for NO_x and a true minor source for all other pollutants. This statement is only true when the facility is operating and maintaining the air pollution control equipment as part of its operational design. The affected emission sources are grouped into the following emission limitation categories:

- A. New Source Performance Standards (NSPS) for Small Industrial - Commercial - Institutional Steam Generating Units. (40 CFR Part 60, Subpart Dc)
- B. New Source Performance Standards (NSPS) for Stationary Gas Turbines. (40 CFR Part 60, Subpart GG)
- C. RESERVED

New Source Performance Standards (NSPS) for Stationary Compression Ignition Internal Combustion Engines (CI ICE) (40 CFR Part 60, Subpart IIII), (Non-Emergency CI ICE)
- D. New Source Performance Standards (NSPS) for Stationary Compression Ignition Internal Combustion Engines (CI ICE) (40 CFR Part 60, Subpart IIII) (Emergency (non fire-pump) CI ICE)
- E. New Source Performance Standards (NSPS) for Stationary Spark Ignition Internal Combustion Engines (SI ICE) (40 CFR Part 60, Subpart JJJJ): (Emergency SI ICE >25 HP, manufactured after January 1, 2009))
- F. National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE) For Non-Emergency CI ≤ 300 HP
- G. New and Existing Stationary Source Performance Standards for Internal Combustion Engines, Compression and Spark Ignition.
(Locally Enforceable Conditions, unless otherwise stated)
- H. New and Existing Stationary Source Performance Standards for Fossil-Fuel Fired Industrial and Commercial Equipment (Boilers, not subject to NSPS).
(Locally Enforceable Conditions, unless otherwise stated)
- I. New and Existing Stationary Source Performance Standards for the Pathological Incinerator.
(Locally Enforceable Conditions, unless otherwise stated)
- J. New and Existing Stationary Source Performance Standards for the Surface Coating and Solvent Degreasing Activities.
(Locally Enforceable Conditions, unless otherwise stated)+
- K. New Source Performance Standards (NSPS) for Combustion Turbines (40 CFR 60, Subpart KKKK)
- K. General Facility-Wide Specific Standards

PART B

CATEGORY A

**New Source Performance Standards (NSPS) for Small Industrial - Commercial - Institutional Steam
Generating Units (40 CFR Part 60, Subpart Dc)**

NSPS Boiler Specific Conditions

Unless otherwise stated, the provisions of this Category apply to the NSPS boilers identified in Table 1, Attachment 2 of this permit.

I. Emission Limitations and Standards

A. Opacity Standard

The Permittee shall not cause, allow, or permit the effluent from the boilers to have an average optical density equal to or greater than 20 percent. [SIP Rule 321 & PCC 17.16.040.A]

B. Fuel Limitation

The Permittee shall combust only natural gas fuel in each boiler identified in, Table 1, Attachment 2 of this Permit. [PCC 17.12.190.B]

[Locally Enforceable and Material Permit Condition]

II. Monitoring Requirements

A. A demonstration to show compliance with the emission limitation for opacity in I.A, of this Category, shall not be required since the percent of opacity of visible emissions from the boilers whilst combusting natural gas fuel is inherently low. The Permittee shall operate and maintain the boilers 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 17.12.180.A.3]

[Locally Enforceable Condition]

B. The Permittee shall be considered in compliance with the fuel limitations in I.B of this Category by making available for the Control Officer's inspection, documentation such as invoices or statements from the fuel supplier showing that only natural gas was purchased for use in the equipment; Alternatively, the demonstration may be made by actual inspection of the equipment showing that natural gas is the only fuel supply plumbed to the equipment for firing.

C. The Permittee shall record the total amount of fuel combusted (delivered) to each affected facility (steam generating unit set within Buildings 46 and 205) during each calendar month.

[40 CFR 60.48c(g)(2), (3) & PCC 17.12.180.A.2]

III. Recordkeeping Requirements

[PCC 17.12.180.A.4]

The Permittee shall retain all records specifying the amount of natural gas delivered to each affected boiler set on a monthly basis for a period of two years following the date of such record. In addition, these records shall be further maintained for a period of three years pursuant to Pima County Code (this additional record retention requirement is not Federally Enforceable). [40 CFR 60.48c(i) & PCC 17.12.180.A.4.b]

IV. Reporting Requirements

[PCC 17.12.180.A.5]

[Locally Enforceable Conditions]

- A. The Permittee shall report to the Control Officer any emissions in excess of the limits established by this permit. The report shall be in 2 parts as specified below: [PCC 17.12.040]
1. Notification by telephone or facsimile within 24 hours of the time the Permittee first learned of the occurrence of excess emissions that includes all available information from PCC 17.12.040.B. The number to report excess emissions is **520-724-7400**. The facsimile number is **520-838-7432**.
 2. Detailed written notification by submission of an excess emissions report within 72 hours of the notification under IV.A.1 above. **Send to PDEQ, 33 N. Stone Avenue, Suite 700, Tucson, Arizona 85701.**
- B. The Permittee shall annually report to the Control Officer the annual amount of natural gas combusted in each affected boiler set. The annual amount of natural gas combusted shall be determined from the sum of 12 consecutive calendar months of fuel combusted as recorded in III of this Category. [EPA DETERMINATION DETAIL CONTROL NUMBER 0300118]

V. Testing Requirements

[Locally Enforceable Conditions]

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.

[PCC 17.12.050 & PCC 17.20.010]

A. Opacity

When required by the Control Officer, the Permittee shall perform EPA Method 9 visible emissions observations on the facility operations to demonstrate compliance with the opacity standard in I.A of this Category A. [PCC 17.12.040.B & PCC 17.20.010]

B. Fuel Limitation

When required by the Control Officer, the Permittee need only demonstrate that pipeline quality natural gas was fired exclusively since the sulfur content of pipeline quality natural gas is regulated by the Federal Energy Regulatory Commission. [PCC 17.12.180.A.3 & PCC 17.20.010]

C. Alternative Test Method

The Permittee may submit an alternate and equivalent test method(s) that is listed in 40 CFR Subpart 60, Appendix A, to the Control Officer in a test plan, for approval by the Control Officer. [PCC 17.12.045.D]

PART B**CATEGORY B****New Source Performance Standards (NSPS) for Stationary Gas Turbines (40 CFR Part 60, Subpart GG)****NSPS Turbine Specific Conditions**

Unless otherwise stated, the provisions of this Category apply to the NSPS Stationary Gas Turbines identified in Table 2, Attachment 2 of this permit.

I. Emission Limitations and Standards**A. Nitrogen Oxide (NO_x) Limitation**

[40 CFR 60.332 (c) & 40 CFR 60.332(a)(2)]

The Permittee shall not cause to be discharged into the atmosphere any gases which contain nitrogen oxides in excess of:

$$\text{STD} = 0.0150 \frac{(14.4)}{Y} + F \quad \text{where:}$$

STD = Allowable ISO corrected NO_x emission concentration (percent by volume at 15 percent oxygen and on a dry basis),

Y = Manufacturer's rated heat rate at manufacturer's rated peak load (kilojoules per watt hour).

F = The NO_x emission allowance for fuel-bound nitrogen.

B. Sulfur Dioxide (SO_x) Limitation

Permittee shall not burn fuel in either gas turbine that contains total sulfur in excess of 0.8 percent by weight (8000 ppmw).

[40 CFR 60.333(b)]

[Material Permit Condition]**C. Fuel Limitation**

The Permittee shall combust only natural gas in the stationary gas turbine engines identified in, Table 2, Attachment 2 of this Permit.

[PCC 17.12.190.B]

[Locally Enforceable and Material Permit Condition]**D. Operational Restrictions**

1. At all times, including periods of startup, shutdown, and malfunction, the Permittee shall, to the extent practicable, 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 Administrator or the Control Officer 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) & PCC 17.16.020.A]

[Material Permit Condition]

2. 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 an 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 & PCC 17.20.040]

II. Monitoring Requirements

[PCC 17.12.180.A.3]

A. Nitrogen Oxide (NO_x), Sulfur Dioxide (SO_x) and Fuel Limitation

The Permittee shall be considered in compliance with the NO_x, SO_x and fuel limitation requirements in I.A, I.B and I.C of this Category respectively, by demonstrating that only commercially available pipeline quality natural gas was fired in the turbines identified in, Table 2, Attachment 2 of this permit. Such a demonstration may be made by making available for the Control Officer's inspection, documentation, such as invoices or statements from the fuel supplier, showing that only natural gas was purchased for use in the equipment. Alternatively, the demonstration may be made by actual inspection of the equipment showing that natural gas is the only fuel supply plumbed to the equipment for firing.

[40 CFR 60.334(h)(3) & PCC 17.12.180.A.2]

III. Recordkeeping Requirements

[PCC 17.12.180.A.4]

A. Operational Records

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.

[40 CFR 60.7(b)]

B. Retention of Monitoring Records

The Permittee shall maintain a file of all required monitoring data and support information for a period of five years from the date of the monitoring sample, measurement report, or application. Support information includes all calibration and maintenance records, performance testing measurements and copies of all reports required by the permit.

[40 CFR 60.7(f) & PCC 17.12.180.A.4.b]

IV. Reporting Requirements

[PCC 17.12.180.A.5]

For purposes of submitting compliance certifications or establishing whether or not the Permittee has violated or is in violation of any standard in 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 requirements if the appropriate performance or compliance test or procedure had been performed. [40 CFR 60.11(g)]

V. Testing Requirements

[PCC 17.20.010]

[Locally Enforceable Conditions]

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.

Periodic Performance Testing for NO_x

[PCC 17.20.010.B]

A. The Control Officer may require the Permittee to test the natural gas turbines for NO_x if the Control Officer determines in writing that all of the following conditions are met:

1. The actual or potential emissions of air pollutants may adversely affect public health or the environment, and,

2. An adequate scientific basis for the test method exists, and,
 3. The testing is technically feasible for the subject contaminant and source, and,
 4. The test method is reasonably accurate, and,
 5. The cost of the test is reasonable in light of the use to be made of the data.
- B. Before requiring such periodic testing, the Control Officer shall consider the relative cost and accuracy of any alternatives which may be reasonable under the circumstances such as emission factors, modeling, mass balance analysis, or emissions projections.

PART B
CATEGORY C
RESERVED

This Part B, Category C has been reserved for non-emergency stationary Compression Ignition Internal Combustion Engines (CI ICE) that commence construction after July 11, 2005 where the stationary CI ICE are manufactured after April 1, 2006 or the stationary CI ICE is modified or reconstructed after July 11, 2005

At the time of this permit issuance; The University of Arizona does not operate any emissions units that are subject to the above rule.

The University of Arizona shall furnish PDEQ a written notification and submit a significant permit revision upon purchasing a subject unit(s). The notification must include the following information:

[40 CFR 60.7(a)(1) & 40 CFR 60.4214]

- I. Name and address of the owner or operator;
- II. The address of the affected source;
- III. Engine information including make, model, engine family, serial number, model year, maximum engine power, and engine displacement;
- IV. Emission control equipment; and
- V. Fuel used.

PART B

CATEGORY D

**New Source Performance Standards (NSPS) for Stationary
Compression Ignition Internal Combustion Engines (CI ICE) (40 CFR Part 60, Subpart III)**

Emergency (non fire-pump) (CI ICE) Specific Conditions

I. Applicability

[40 CFR 60.4200(a)]

The provisions of this Category apply to emergency CI ICE that commence construction after July 11, 2005 where the stationary CI ICE are manufactured after April 1, 2006 or the stationary CI ICE is modified or reconstructed after July 11, 2005. The subject CI ICE unit(s) is/are identified in, Table 3, Attachment 2 of this permit.

II. Operational Limitations

[PCC 17.12.180.A.2]

The provisions of this Category apply to emergency CI ICE (non-fire pump) with a maximum engine power $\leq 2,237$ kW (3,000 hp) and displacement less than 10 liters/cylinder.

[40 CFR 60.4202]

A. Emission Limits

1. The subject CI ICE must be certified by the manufacturer to meet the applicable emission standards identified in Table A of this Category for the useful life of the engine. The “useful life” of the engine is identified in Table B of this Category. Constant speed engines are exempt from opacity requirements identified in the NSPS Subpart III.

[40 CFR 60.4202, 40 CFR 60.4203, 40 CFR 60.4205 & 40 CFR 89.113(c)]

2. The Permittee shall not cause or permit the effluent from any subject diesel fired CI ICE to have an average optical density equal to or greater than 60 percent during the first 10 minutes when a cold diesel engine is started or when a diesel engine is accelerated under load as measured in accordance with EPA Reference Method 9, Appendix A in 40 CFR 60.

[SIP Rule 321 & PCC 17.16.040]

[Federally Enforceable Condition]

3. The Permittee must operate and maintain subject engines according to the manufacturer's written instructions, or procedures developed by the Permittee that are approved by the engine manufacturer, over the entire life of the engine. The Permittee may only change those settings that are permitted by the manufacturer.

[40 CFR 60.4206 & 40 CFR 60.4211(a)]

Table A

Emission Standards based on Model Year per 40 CFR 89.112 (Table 1), and 40 CFR 60 Subpart IIII (Tables 1 & 2) [g/kW-hr (g/hp-hr)]						
Maximum engine power	Model years	PM	HC	NO_x +NMHC	NO_x	CO
kW < 8 (<11 hp)	Pre-2007	1.0(0.75)		10.5 (7.8)		8.0 (6.0)
	2007	1.0		10.5		8.0
	2008 and later	0.40 (0.30)		7.5 (5.6)		8.0 (6.0)
8 ≤ kW < 19 (11 ≤ hp < 25)	Pre-2007	0.80 (0.60)		9.5 (7.1)		6.6 (4.9)
	2007	0.80		7.5		6.6
	2008 and later	0.40 (0.30)		7.5 (5.6)		6.6 (4.9)
19 ≤ kW < 37 (25 ≤ hp < 50)	Pre-2007	0.80 (0.60)		9.5 (7.1)		5.5 (4.1)
	2007	0.60		7.5		5.5
	2008 and later	0.30 (0.22)		7.5 (5.6)		5.5 (4.1)
37 ≤ kW < 75 (50 ≤ hp < 100)	Pre-2007				9.2 (6.9)	
	2007	0.40		7.5		5.0
	2008 and later	0.40		4.7		5.0
75 ≤ kW < 130 (100 ≤ hp < 175)	Pre-2007				9.2 (6.9)	
	2007 and later	0.30		4.0		5.0
130 ≤ kW ≤ 560 (175 ≤ hp ≤ 750)	Pre-2007	0.54 (0.40)	1.3 (1.0)		9.2 (6.9)	11.4 (8.5)
	2007 and later	0.20		4.0		3.5
kW > 560 (>750 hp)	Pre-2007	0.54 (0.40)	1.3 (1.0)		9.2 (6.9)	11.4 (8.5)
	2007 and later	0.20		6.4		3.5

Table B

Useful Life Values per 40 CFR 1039.101, Table 4			
If the engine is certified as...	And its maximum power is...	And its rated speed is...	Then its useful life is...
(i) Variable speed or constant speed.	kW < 19(HP < 25)	Any speed	3,000 hours or five years, whichever comes first.
(ii) Constant speed	19 ≤ kW < 37 (25 ≤ HP < 50)	3,000 rpm or higher	3,000 hours or five years, whichever comes first.
(iii) Constant speed	19 ≤ kW < 37 (25 ≤ HP < 50)	Less than 3,000 rpm	5,000 hours or seven years, whichever comes first.
(iv) Variable	19 ≤ kW < 37 (25 ≤ HP < 50)	Any speed	5,000 hours or seven years, whichever comes first.
(v) Variable speed or constant speed	kW ≥ 37 (HP ≥ 50)	Any speed	8,000 hours or ten years, whichever comes first.

II. Operational Limitations (continued)

B. Fuel Requirements [40 CFR 60.4207]

1. Beginning October 1, 2010, the Permittee shall use diesel fuel that meets the following requirements on a per gallon basis: [40 CFR 60.4207(b) & 40 CFR 80.510(b)]
 - a. Sulfur content: 15 ppm maximum;
 - b. Cetane index or aromatic content, as follows:
 - i. A minimum cetane index of 40; or
 - ii. A maximum aromatic content of 35 volume percent.
2. With respect to pre-2011 model year stationary CI ICE subject to this Category, the Permittee may petition the Administrator for approval to use remaining non-compliant fuel that does not meet the fuel requirements of II.B.1 of this Category, beyond the dates required for the purpose of using up existing fuel inventories. If approved, the petition will be valid for a period of up to 6 months. If additional time is needed, the Permittee shall be required to submit a new petition. [40 CFR 60.4207(c)]

C. Installation Restrictions [40 CFR 60.4208]

1. The Permittee may not install stationary CI ICE (excluding fire pump engines) that do not meet the applicable requirements for 2007 model year engines in 40 CFR 60, Subpart IIII, as applicable. [40 CFR 60.4208(a)]
2. After December 31, 2009, the Permittee may not install stationary CI ICE with a maximum engine power of less than 25 HP (excluding fire pump engines) that do not meet the applicable requirements for 2008 model year engines in 40 CFR 60, Subpart IIII, as applicable. [40 CFR 60.4208(b)]
3. The requirements of II.C.1 through 2 of this Category do not apply to stationary CI ICE that have been modified or reconstructed, and do not apply to engines that were removed from one existing location and reinstalled at a new location. This provision does not extend to imported units which shall be treated as new sources. [40 CFR 60.4208(g) & (h)]

D. Operational Hours (Emergency Designation) [40 CFR 60.4211(e)]

Emergency stationary ICE may be operated 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 such units is limited to 100 hours per year. There is no time limit on the use of emergency stationary ICE in emergency situations. 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 year. Any operation other than emergency operation, and maintenance and testing as permitted in this Category, is prohibited.

E. Compliance

[40 CFR 60.4211]

1. Engine Maintenance

The Permittee must operate and maintain the subject stationary CI ICE according to the manufacturer's written instructions or procedures developed by the Permittee that are approved by the engine manufacturer. In addition, the Permittee may only change those settings that are permitted by the manufacturer.

[40 CFR 60.4211(a)]

2. Hour Meter Installation

The Permittee must install a non-resettable hour meter on each subject stationary CI ICE prior to startup of each engine.

[40 CFR 60.4209(a)]

III. Monitoring Requirements

[PCC 17.12.180.A.3]

In order to demonstrate compliance with the operational limitation for opacity in II.A of this Category, the Permittee shall conduct a visible emissions check on the exhaust stack of all subject CI ICE firing at least quarterly while the subject CI ICE is/are operating. For the purposes of this permit, a visible emissions check is verification that abnormal emissions are not present at the subject CI ICE stack. 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).

[PCC 17.12.180.A.3]

IV. Recordkeeping Requirements

A. Hourly Operational Records

1. In order to demonstrate compliance with the operational hour limitation in II.D of this Category, the Permittee shall record the monthly maintenance checks and readiness testing operating hours for each subject engine. In addition, the Permittee shall recalculate a rolling twelve (12) month total within 30 calendar days of the end of the month.
- [PCC 17.12.180.A.4]
2. Starting with the model years in Table C of this Category, if the emergency engine does not meet the standards identified in Table A of this Category in the applicable model year, the Permittee must keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The Permittee shall record the time of operation of the engine and the reason the engine was in operation during that time.
- [40 CFR 60.4214(b)]

Table C

Recordkeeping Requirements for New Stationary Emergency Engines (40 CFR 60, Subpart III, Table 5)	
Engine Power	Starting model year
$19 \leq \text{kW} < 56$ ($25 \leq \text{HP} < 75$)	2013
$56 \leq \text{kW} < 130$ ($75 \leq \text{HP} < 175$)	2012
$\text{kW} \geq 130$ ($\text{HP} \geq 175$)	2011

B. Manufacturer Certifications

The Permittee shall maintain records of manufacturer certifications that identify the applicable emission limits for the appropriate model year and maximum engine power and certify the subject engines to those standards. [PCC 17.12.180.A.4]

C. Diesel Fuel Recordkeeping

The Permittee shall maintain records that verify compliance with the diesel fuel requirements in II.B of this Category. [PCC 17.12.180.A.4]

D. Opacity

The Permittee shall keep all records generated to show compliance with the opacity level measurement requirements of II.A of this Category, if measurements are required. The Permittee shall also retain records of visible emissions checks/observations. [PCC 17.12.180.A.3]

E. Facility Recordkeeping

All records required by, or generated to verify compliance with this Category shall be maintained for five years. [PCC 17.12.180.A.4]

V. Reporting Requirements

[40 CFR 60.4214 & PCC 17.12.180.A.5]

The Permittee shall report to the Control Officer any emissions in excess of the limits established by this permit according to XI.A of Part A of this permit.

VI. Testing Requirements

[40 CFR 60.4212 & PCC 17.12.180.A.3.a]

Should the Permittee elect to or be required to conduct performance testing to demonstrate compliance with the applicable standards of this Category, the Permittee shall do so in accordance with 40 CFR 60.4212.

VII. Additional Requirements

[40 CFR 60.4218 & 40 CFR 60.4214(b)]

The General Provisions of 40 CFR 60.1 through 19 apply to subject sources as indicated in Table 8 of 40 CFR Subpart IIII except that the Permittee is not required to submit an initial notification.

PART B**CATEGORY E****New Source Performance Standards (NSPS) for Stationary Spark Ignition Internal Combustion Engines (SI ICE) (40 CFR Part 60, Subpart JJJJ): (Emergency SI ICE >25 HP, manufactured after January 1, 2009)****I. Applicability**

[40 CFR 60.4230(a)]

The provisions of this Category apply to emergency 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). The subject SI ICE unit(s) is/are identified in, Table 4, Attachment 2 of this permit.

II. Operational Limitations

[PCC 17.12.180.A.2]

A. Emission Limits

[40 CFR 60.4233]

The subject emergency SI ICE must be certified by the manufacturer to meet the following emission standards.

[40 CFR 60.4233(e)]

NO_x 2.0g/hp-hr or 160 ppmvd at 15% O₂

CO 4.0g/hp-hr or 540 ppmvd at 15% O₂

VOC¹ 1.0g/hp-hr or 86 ppmvd at 15% O₂

B. Installation Restrictions

[40 CFR 60.4236]

1. After January 1, 2011, the Permittee may not install emergency stationary SI ICE with a maximum engine greater than 25 HP that do not meet the applicable requirements 40 CFR 60.4233.
[40 CFR 60.4236(c)]
2. The requirements of III.A of this Category do not apply to stationary SI ICE that have been modified or reconstructed, and do not apply to engines that were removed from one existing location and reinstalled at a new location.
[40 CFR 60.4236(e)]
3. Emergency stationary ICE may be operated 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 such units is limited to 100 hours per year. There is no time limit on the use of emergency stationary ICE in emergency situations. 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 year. Emergency stationary ICE may operate up to 50 hours per year in non-emergency situations, but those 50 hours are counted toward the 100 hours per year provided for maintenance testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving 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. For emergency engines, any operation other than emergency operation, maintenance and testing and operation in non-emergency situations for 50 hours per year, is prohibited.
[40 CFR 60.4243(d)]

¹ When calculating emissions of volatile organic compounds, emissions of formaldehyde should not be included. [Subpart JJJJ, Table 1, footnote d.]

4. Natural gas fired SI ICE may be operated using propane for a maximum of 100 hours per year as an alternative fuel solely during emergency operations, but the Permittee 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 owners and operators are required to conduct a performance test to demonstrate compliance with the emission standards of 40 CFR 60.4233. [40 CFR 60.4243(e)]

C. Compliance

1. The Permittee must operate and maintain subject engines according to the manufacturer's written instructions over the entire life of the engine. The Permittee may adjust the engine settings according to and consistent with the manufacturer's instructions. [40 CFR 60 4243(a)]
2. The Permittee shall install a non-resettable hour meter on each subject emergency SI ICE. [PCC 17.12.180.A.2]

III. Recordkeeping Requirements

[PCC 17.12.180.A.3 & 40 CFR 60.4245]

A. Operational Hour Records

In order to demonstrate compliance with the operational hour limitation in II.B.3 of this Category, the Permittee shall record the monthly maintenance checks and readiness testing operating hours for each subject engine. In addition the Permittee shall recalculate a rolling 12 month total within 14 calendar days of the end of the month. [PCC 17.12.180.A.3]

B. Maintenance

[40 CFR 60.4245(a)(2)]

The Permittee shall record and retain all maintenance conducted on the subject engines.

C. Certifications

[40 CFR 60.4245(a)(3)]

The Permittee shall maintain records of the manufacture certifications that identify the applicable emission limits for the appropriate model year and maximum engine horsepower and certify the subject engines to those standards.

IV. Reporting Requirements

[PCC 17.12.180.A.5]

The Permittee shall report to the Control Officer any emissions in excess of the limits presented in II.A of this Category and according to XI.A of Part A of this Permit.

V. Testing Requirements

[PCC 17.20.010 & 40 CFR 60 .4244]

Should the Permittee elect or be required to conduct performance testing to demonstrate compliance with the applicable standards, the Permittee shall do so in accordance with 40 CFR 60.4244.

VI. Additional Requirements

[40 CFR 60.1216]

The General Provisions of 40 CFR 60.1 through 60.19 apply to subject sources as indicated in Table 3 of Subpart JJJJ except that the Permittee is not required to submit an initial notification.

PART B

CATEGORY F

**National Emission Standards for Hazardous Air Pollutants for
Stationary Reciprocating Internal Combustion Engines (RICE) For Non-Emergency CI ≤ 300 HP**

I. Applicability

40 CFR 63, Subpart ZZZZ – National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE). The subject Compression Ignition (CI) ICE unit(s) is/are identified in, Table 3a, Attachment 2 of this permit [PCC 17.16.530.B.83]

[Federally Enforceable Conditions]

1. Applicable to each existing stationary compression ignition (CI) RICE at an area source. [40 CFR 63.6585]

A stationary RICE is “existing,” if construction or reconstruction was commenced before June 12, 2006. [40 CFR 63.6590(a)(iii)]

2. Existing CI RICE must comply with the applicable requirements in this Category no later than May 3, 2013. [40 CFR 63.6595(a)(1)]

II. Emission Limitations and Standards

[PCC 17.12.180.A.2]

- A. Hour Limitation [PCC 17.12.180.A.2 & PCC 17.12.190.B]

The Permittee shall not operate the CI RICE for more than the number of hours per year specified in the permit equipment list on a rolling twelve (12) month total basis.

- B. Management Practices

The Permittee must comply with the following management practices:

[40 CFR 63.6603(a) and Table 2d to Subpart ZZZZ]

[Material Permit Conditions]

1. The Permittee must comply with the following management practice requirements except during periods of startup: [Row 1 of Table 2d to Subpart ZZZZ]
 - a. Change oil and filter every 1,000 hours of operation or annually, whichever comes first; and
 - b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; and
 - c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.
2. The Permittee must minimize the engine's time spent 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)]

C. Fuel Requirements

1. The Permittee shall burn only the specified fuel allowed for each applicable generator specified in the permit equipment list. The Permittee shall only fire fuel with a sulfur content less than 0.90 percent by weight.
[PCC 17.12.350.A.3.a & PCC 17.12.190.B]

[Locally Enforceable Condition]

2. The Permittee has the option to utilize an oil analysis program as described in IV.C of this Category in order to extend the specified oil change requirement in II.B.1.a of this Category.

[Footnote 1, Table 2d to Subpart ZZZZ of Part 63 & 40 CFR 63.6625(i)]

D. Opacity Limits

[Locally Enforceable Conditions]

1. Except as otherwise specified in this Category, the opacity of all plumes and effluents from all point and non-point sources shall not exceed 20% as determined by EPA Reference Method 9, Appendix A 40 CFR 60.

[PCC 17.16.040, PCC 17.16.050.B & PCC 17.16.130.B.1]

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

2. 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 17.12.180.A & PCC 17.16.340.E]

3. The Permittee shall not cause or permit the effluent from any generator to have an average optical density equal to or greater than 60 percent when a cold diesel engine is started or when a diesel engine is accelerated under load as measured in accordance with EPA Reference Method 9.

[PCC 17.12.180.A & PCC 17.16.040]

III. General Compliance Requirements

- A. The Permittee must be in compliance with the emission limitations, operating limitations and other requirements in II.B of this Category at all times.

[40 CFR 63.6605(a)]

- B. The Permittee must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, at all times, 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 Category have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Control Officer 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)]

IV. Monitoring, Installation, Collection, Operation, and Maintenance Requirements

- A. The Permittee must install a non-resettable hour meter if one is not already installed.

[PCC 17.12.350.A. 3.c]

[Material Permit Condition]

- B. The Permittee must 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 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 63.6625(e), 40 CFR 63.6625(e)(4), 63.6640(a) - Table 6 to Subpart ZZZZ of Part 63 (Row 9)]

- C. If the Permittee decides to utilize an oil analysis program in order to extend the specified oil change requirement in II.C.2 of this Category, the oil analysis must be performed at the same frequency specified for changing the oil in II.B.1.a of this Category. The analysis program must at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30 percent of the Total Base Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or 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 business days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the Permittee must change the oil within 2 business days or before commencing operation, whichever is later. The Permittee must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine.

[40 CFR 63.6625(i) & Table 2d to Subpart ZZZZ of Part 63]

- D. The Permittee shall be considered in compliance with the fuel limitations required in II.C of this Section by demonstrating that only the specified fuel identified in the permit equipment list was fired in the subject engine. 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 which verify the sulfur content of the fuel being delivered.

[PCC 17.12.180.A.3.c]

[Locally Enforceable Condition]

- E. In order to demonstrate compliance with the opacity limitations in II.D of this Category, the Permittee shall conduct a visible emissions check on the exhaust stack of the generator at least monthly if the generator is run during the month. For the purposes of this permit, a visible emissions check is verification that abnormal emissions are not present at the generator stack. 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).

[PCC 17.12.180.A.3.c]

[Locally Enforceable Condition]

- F. If the observer sees visible emissions from the generator that, on an instantaneous basis, appears to exceed the opacity limitations in II.D of this section then the Permittee shall, if practicable, take an EPA Reference Method 9 observation of the plume. If the emissions exceed the opacity limitations then this occurrence shall be recorded and reported as an excess emission.

[PCC 17.12.180.A.3.c]

[Locally Enforceable Condition]

V. Recordkeeping Requirements

[PCC 17.12.180.A.3 & 4]

- A. The Permittee must keep records of the maintenance conducted on the RICE in order to demonstrate that the Permittee operated and maintained the RICE and after-treatment control device (if any) according to the Permittee's own maintenance plan.

[40 CFR 63.6655(e), & 40 CFR 63.6655(e)(3)]

- B. For each generator 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. All records shall be maintained for five years.

[PCC 17.12.180.A.3]

[Locally Enforceable Condition]

- C. In order to demonstrate compliance with the fuel limitations in I.C of this Section, the Permittee shall maintain records of fuel supplier specifications which verify the sulfur content of the fuel as delivered. All records shall be maintained for five years.

[PCC 17.12.180.A.4]

[Locally Enforceable Condition]

- D. The Permittee shall retain records of visible emissions checks/observations. 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. [PCC 17.12.180.A.4]
[Locally Enforceable Condition]
- E. The Permittee's records must be in a form suitable and readily available for expeditious review according to 40 CFR 63.10(b)(1). [40 CFR 63.6660(a)]
- F. As specified in 40 CFR 63.10(b)(1), the Permittee must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. [40 CFR 63.6660(b)]
- G. The Permittee must keep each record readily accessible in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 CFR 63.10(b)(1). [40 CFR 63.6660(c)]

VI. Reporting Requirements

[PCC 17.12.180.A.5]

The Permittee shall report to the Control Officer any emissions in excess of the limits established by this Category in accordance with XI. Part A of this Permit. [PCC 17.12.040]

[Locally Enforceable Condition]

VII. Testing Requirements

[PCC 17.12.045, PCC 17.12.050 & PCC 17.20.010]

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.

Methods referenced below are from 40 CFR Part 60, Appendix A unless otherwise noted.

A. Opacity

When required by the Control Officer, the Permittee shall perform EPA Method 9 visible emissions observations on the engines identified in this Section to demonstrate compliance with the opacity limits in I.D of this Category. [PCC 17.12.045.B]

[Locally Enforceable Condition]

PART B**CATEGORY G****New and Existing Stationary Source Performance Standards for Internal Combustion Engines,
Compression and Spark Ignition
(Locally Enforceable Conditions, unless otherwise stated)**

Unless otherwise stated, the provisions of this Category apply to the equipment identified as Non-NSPS in Attachment 2, Table 3 and Table 4 of this permit.

I. Emission Limitations and Standards**A. Particulate Matter Limitation**

[PCC 17.16.340.C]

The Permittee shall not cause, allow or permit the emission of particulate matter, caused by combustion of fuel, from any stationary rotating machinery in excess of the amounts calculated by one of the following equations:

1. For equipment having a heat input rate of 4200 million BTU per hour or less, the maximum allowable emissions shall be determined by the following equation:

$$E = 1.02Q^{0.769} \quad \text{where:}$$

E = the maximum allowable particulate emissions rate in pounds-mass per hour (rounded off to 2 decimal places) [PCC 17.16.340.D]

Q = the heat input in million BTU per hour.

2. For equipment having a heat input rate greater than 4200 million BTU per hour, the maximum allowable emissions shall be determined by the following equation:

$$E = 17.0Q^{0.432} \quad \text{where:}$$

"E" and "Q" have the same meaning as in I.A.1 of this Category.

B. Opacity Limitation

1. The Permittee shall not cause, allow, or permit to be emitted into the atmosphere from any generator, 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]

2. The Permittee shall not cause or permit the effluent from any diesel fired generator to have an average optical density equal to or greater than 60 percent during the first 10 minutes when a cold diesel engine is started or when a diesel engine is accelerated under load as measured in accordance with EPA Reference Method 9, Appendix A in 40 CFR 60. [SIP Rule 321 & PCC 17.16.040]

[Federally Enforceable Condition]**C. Sulfur Dioxide Limitation**

For those subject engines listed in Table 3 and Table 4 of Attachment 2 as firing only diesel fuel, the Permittee shall limit the emission of sulfur dioxide to 1.0 pound per million Btu heat input.

[PCC 17.16.340.F]

D. Operational Limitation

The Permittee shall not operate any emergency generator for more than the number of hours per year allowed in Attachment 2 of this permit calculated on a rolling twelve (12) month total basis, except during periods when normal electrical power is interrupted.

[PCC 17.12.190.B]

[Material Permit Condition]

E. Fuel Limitation

1. The Permittee shall burn only the specified fuel allowed for each engine identified in Attachment 2 of this Permit.

[PCC 17.12.190.B]

[Material Permit Condition]

2. For those subject engines listed in Table 3 and Table 4 of Attachment 2 as firing only diesel fuel, the Permittee shall burn only low sulfur oil (fuel oil containing less than 0.90 percent by weight sulfur).

[PCC 17.12.190.B]

[Material Permit Condition]

II. Monitoring Requirements

[PCC 17.12.180.A.3]

A. Particulate Matter

A demonstration to show compliance with the emission limitation for particulate matter in I.A of this Category 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 internal combustion engines 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.

B. Opacity

1. Gaseous Fuel-Fired Equipment

A demonstration to show compliance with the emission limitation for opacity in I.B.1 of this Category shall not be required since the percent of opacity of visible emissions whilst combusting natural gas is inherently low. The Permittee shall operate and maintain the engines 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.

2. All Other Fuel Sources

In order to demonstrate compliance with the emission limitation for opacity in I.B of this Category, the Permittee shall conduct a visible emissions check on the exhaust stack of each generator firing any fuel other than a gaseous fuel at least quarterly while the generator is operating. For the purposes of this permit, a visible emissions check is verification that abnormal emissions are not present at the generator stack. 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).

C. Sulfur Dioxide

Compliance with the fuel limitation requirement of I.E.2 of this Category (PCC 17.16.340.H) shall ensure compliance with the sulfur dioxide limitation of I.C of this Category (PCC 17.16.340.F).

D. Operational Hours

The Permittee shall monitor the monthly operating hours for each engine identified as having an operational limitation in Table 3 and Table 4 of Attachment 2.

E. Fuel

1. The Permittee shall be considered in compliance with the fuel limitations in I.E.1 of this Category by demonstrating that each engine was fired only by the specified fuel allowed as listed in Table 3 and Table 4 of Attachment 2. Such a demonstration may be achieved by making available for the Control Officer's inspection, documentation, such as invoices or statements from the fuel supplier, showing that only the specified fuel was purchased for use in the equipment. Alternatively, the demonstration may be made by actual inspection of the equipment showing that the specified fuel is the only fuel supply plumbed to the equipment for firing.
2. The Permittee shall be considered in compliance with the fuel limitations in I.E.2 of this Category by making available for the Control Officer's inspection, documentation, such as fuel supplier specifications, showing that only low sulfur fuel is provided by the supplier.

III. Recordkeeping Requirements

[PCC 17.12.180.A.4]

- A. The Permittee shall retain records of visible emissions checks/observations when required and copies of the fuel supplier specifications/delivery sheets for each generator. Records shall be retained for a period of five years.
- B. For those subject engines listed in Table 3 and Table 4 of Attachment 2, the Permittee shall record daily the sulfur content and lower heating value of the fuel being fired. [PCC 17.16.340.I]

[The Permittee shall be considered in compliance with this recordkeeping requirement by demonstrating that each engine was fired only by the specified fuel allowed as listed in Table 3 and Table 4 of Attachment 2. Such a demonstration may be achieved by making available for the Control Officer's inspection, documentation, such as invoices or statements from the fuel supplier, showing that only the specified fuel was purchased for use in the equipment. Alternatively, the demonstration may be made by actual inspection of the equipment showing that the specified fuel is the only fuel supply plumbed to the equipment for firing.]

- C. For each generator identified as having an operational limitation in Table 3 and Table 4 of Attachment 2, the Permittee shall record the operating hours monthly. In addition, the Permittee shall recalculate a rolling twelve (12) month total within 30 calendar days of the end of the month. The Permittee shall retain records of all operational hour logs for each generator for a period of five years.

IV. Reporting Requirements

[PCC 17.12.180.A.5]

- A. The Permittee shall report to the Control Officer any emissions in excess of the limits established by this permit according to XI.A.1 of Part A. [PCC 17.12.040]
- B. The Permittee shall report to the Control Officer any daily period during which the sulfur content of the fuel being fired in the diesel fired engines exceeds 0.8 percent. [PCC 17.16.340.J]

V. 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.

[PCC 17.12.050 & PCC 17.20.010]

A. Opacity

When required by the Control Officer, the Permittee shall perform EPA Method 9 visible emissions observations on the engines identified in Table 3 and Table 4 of Attachment 2 to demonstrate compliance with the opacity standard in I.B of this Category.

[PCC 17.12.040.B & PCC 17.20.010]

B. Fuel Limitation

1. Natural Gas Fired Equipment

When required, the Permittee need only demonstrate that pipeline quality natural gas was fired, in the natural gas fired equipment, exclusively since the sulfur content of pipeline quality natural gas is regulated by the Federal Energy Regulatory Commission.

[PCC 17.12.180.A.3 & PCC 17.20.010]

2. When required, the following reference methods shall be used to determine compliance with the fuel limitation standard in I.E.2 of this Category.

- a. ASTM Method D-129-91 (Test Method for Sulfur in Petroleum Products) (General Bomb Method) for the sulfur content of liquid fuels.
- b. ASTM Method D-1072-90 (Test Method for Total Sulfur in Fuel Gases) for the sulfur content of gaseous fuels.

3. When required, to determine the sulfur content of the fuel being fired for purposes of the reporting requirement in IV.B of this Category, the following reference methods in the Arizona Testing Manual shall be used:

- a. ASTM Method D-129-91 (Test Method for Sulfur in Petroleum Products) (General Bomb Method) for the sulfur content of liquid fuels.
- b. ASTM Method D-1072-90 (Test Method for Total Sulfur in Fuel Gases) for the sulfur content of gaseous fuels.

C. Alternative Test Method

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

[PCC 17.12.045.D]

PART B

CATEGORY H

New and Existing Stationary Source Performance Standards for Fossil-Fuel Fired Industrial and Commercial Equipment (Boilers, not subject to NSPS) (Locally Enforceable Conditions, unless otherwise stated)

Unless otherwise stated, the provisions of this Category apply to the equipment identified in, Table 5, Attachment 2 of this permit.

I. Emission Limitations and Standards

A. Particulate Matter Limitation

1. The Permittee shall not cause, allow or permit the emission of particulate matter, caused by combustion of fuel, from any fuel burning operation in excess of the amount calculated by the following equation:

[SIP Rule 332 & PCC 17.16.165.C]

[Federally Enforceable Condition]

$$E = 1.02Q^{0.769} \quad \text{where:}$$

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

Q = the heat input in million BTU per hour.

2. The actual values shall be calculated from the applicable equations and rounded off to two decimal places.

[PCC 17.16.165.D]

B. Opacity Limitation

The Permittee shall not cause, allow or permit the effluent from any boiler to have an average optical density equal to or greater than 20 percent.

[PCC 17.16.040]

C. Fuel Limitation

1. The Permittee shall burn only the specified fuel allowed for the boilers in Table 5 of Attachment 2.

[PCC 17.12.190.B]

[Material Permit Condition]

2. The Permittee shall not use high sulfur oil (fuel sulfur content >0.90% by weight) as a fuel unless the Permittee demonstrates to the satisfaction of the Control Officer that sufficient quantities of low sulfur oil are not available for use by the source and that it has adequate facilities and contingency plans to insure that the sulfur dioxide ambient air quality standards set forth in PCC 17.08.020 will not be violated.

[PCC 17.16.165.G]

II. Monitoring Requirements

[PCC 17.12.180.A3]

A. Particulate Matter

A demonstration to show compliance with the particulate matter limitation in I.A of this Category 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 boilers at all times - including periods of startup, shutdown, and malfunction - in a manner consistent with good air pollution control practices and consistent with manufactures guidelines.

B. Opacity

A demonstration to show compliance with the emission limitation for opacity in I.B of this Category shall not be required since the percent of opacity of visible emissions whilst combusting natural gas is inherently low. The Permittee shall operate and maintain the boilers 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 17.12.180.A3]

C. Fuel

The Permittee shall be considered in compliance with the fuel limitation in I.C of this Category by demonstrating that each boiler was fired only by the specified fuel allowed as listed in Table 5 of Attachment 2. 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 the specified fuel was purchased for use in the equipment. Alternatively, the demonstration may be made by actual inspection of the equipment showing that the specified fuel is the only fuel supply plumbed to the equipment for firing.

III. Recordkeeping Requirement

The Permittee shall retain copies of the fuel supplier specifications/delivery sheets for each boiler for a period of five years.

[PCC 17.12.180.A.4]

IV. Reporting Requirements

[PCC 17.12.180.A.5]

The Permittee shall report to the Control Officer any emissions in excess of the limits established by this permit according to XI.A.1 of Part A of this permit.

[PCC 17.12.040]

V. 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.

[PCC 17.12.050 & PCC 17.20.010]

A. Opacity

When required, the Permittee shall perform EPA Method 9 visible emissions observations on the facility operations to demonstrate compliance with the opacity standard in I.B of this Category.

[PCC 17.12.040.B & PCC 17.20.010]

B. Fuel Limitation

When required the Permittee need only demonstrate that pipeline quality natural gas was fired exclusively since the sulfur content of pipeline quality natural gas is regulated by the Federal Energy Regulatory Commission.

[PCC 17.12.180.A.3 & PCC 17.20.010]

C. Alternative Test Method

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

[PCC 17.12.045.D]

PART B

CATEGORY I

New and Existing Stationary Source Performance Standards for the Pathological Incinerator
(Locally Enforceable Conditions, unless otherwise stated)

Unless otherwise stated, the provisions of this Category apply to the equipment identified in Table 6, Attachment 2, of this permit.

I. Emission Limitations and Standards

A. Opacity Limitation

The Permittee shall not cause, allow, or permit to be emitted into the atmosphere, smoke, fumes, gases, particulate matter or other gas-borne material which exceeds 20 percent opacity except for 30 seconds in any 60 minute period.

[SIP Rule 321.A, PCC 17.16.170.B & PCC 17.16.170.E.1]

[Federally Enforceable Condition]

B. Particulate Matter Limitation

Emissions from the incinerator shall not exceed 0.08 grains per cubic foot based on dry flue gas at standard conditions, corrected to 12 percent carbon dioxide, except for 30 seconds in any 60 minute period.

[SIP Rule 332.A, PCC 17.16.170.C.1 & PCC 17.16.170.E.1]

[Federally Enforceable Condition]

C. Visibility Limitation

The Permittee shall not cause or permit the airborne diffusion of visible emissions, excluding water vapor, beyond the property boundary line without appropriately controlling the emissions at the point of discharge.

[PCC 17.16.050.D]

D. Operational Limitations

1. Allowable Waste for Incineration

The Permittee shall not burn any substance greater than 10 percent or more by weight (on a calendar quarter basis and excluding the weight of auxiliary fuel and combustion air) of material other than pathological waste, defined as material consisting of only human or animal remains, anatomical parts, and/ or tissue, the bags/containers used to collect and transport the waste material, and animal bedding (if applicable).

[PCC 17.12.180.A.2]

[Material Permit Condition]

2. Hour Limitation

The Permittee shall limit the hours of operation of the pathological incinerator to daylight hours between the times of official sunrise and sunset.

[SIP Rule 313.A & PCC 17.16.170.A]

[Federally Enforceable Condition]

3. Fuel Limitation

The Permittee shall burn only the specified fuel allowed for the pathological incinerator identified in Table 6 of Attachment 2.

[PCC 17.12.190.B]

[Material Permit Condition]

II. Monitoring Requirements

[PCC 17.12.180.A.3]

A. Opacity and Visible Emissions

In order to demonstrate compliance with the opacity and visible emissions limitation in I.A and I.C of this Category respectfully, the Permittee shall conduct daily visible emission checks on the exhaust stack of the incinerator while the unit is operating. For the purposes of this permit, a visible emissions check is verification that abnormal emissions are not present at the incinerator stack. If the observer sees a plume that, on an instantaneous basis, appears to exceed 20% opacity or the plume is crossing property boundaries, then the Permittee shall, if practicable, take a six-minute Method 9 observation of the plume. If the six-minute Method 9 observation results in an average opacity reading of 20% or more, this shall be recorded and reported as an excess emission and a permit deviation.

B. Particulate Matter

A demonstration to show compliance with the emission limitation for particulate matter in I.B of this Category 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 incinerator unit at all times - including periods of startup, shutdown, and malfunction - in a manner consistent with good air pollution control practices and consistent with manufacturers' guidelines.

C. Allowable Waste

To assure compliance with the allowable waste limitation in I.D.1 of this Category, the Permittee shall monitor the type and quantity (by weight) of waste incinerated. The Permittee shall determine the percent of pathological waste incinerated in a calendar quarter basis.

D. Operational Hour

To assure compliance with the operational hour limitation in I.D.2 of this Category, of this permit, the Permittee shall monitor the charging rate, time of operation and hours of operation of the incinerator per day of operation.

[PCC 17.16.170.F]

E. Operational Fuel

The Permittee shall be considered in compliance with the fuel limitation in I.D.3 of this Category by demonstrating that the incinerator was fired only by the specified fuel allowed as listed in Table 6 of Attachment 2. 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 the specified fuel was purchased for use in the equipment. Alternatively, the demonstration may be made by actual inspection of the equipment showing that the specified fuel is the only fuel supply plumbed to the equipment for firing.

[PCC 17.12.180.A.3 & PCC 17.12.180.A.4]

III. Recordkeeping Requirements

[PCC 17.12.180.A.4]

A. Opacity

The Permittee shall record all observations made under opacity and visible emissions monitoring described in II.A of this Category including; 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). If no visible emissions are observed, the record shall reflect this.

B. Operational Log

The Permittee shall maintain an operation log for the incinerator showing: the percent by weight of pathological waste incinerated, the hours of startup and shutdown of the incinerator, including date, starting time (in hours and minutes), the shutting down time (in hours and minutes) and the duration of the burn.

[PCC 17.16.170.F]

C. Waste Percentage

The percent by weight of pathological waste incinerated per calendar quarter basis shall be determined and presented in the operational log at such time when sufficient data is available for each calendar quarter basis.

D. Fuel Limitation

In order to demonstrate compliance with the fuel limitation required in I.D.3 of this Category, the Permittee shall maintain records of fuel supplier specifications which verify the sulfur content of the fuel, piped and/or as delivered. Alternatively, the demonstration may be made by actual inspection of the equipment showing that the specified fuel is the only fuel supply plumbed to the equipment for firing.

E. Operational Log Update

The operation log shall be updated at the end of each operating day.

IV. Reporting Requirements

The Permittee shall report to the Control Officer any emissions in excess of the limits established by this permit according to XI.A.1 of Part A of this permit.

[PCC 17.12.040]

V. 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.

[PCC 17.12.050 & PCC 17.20.010]

A. Opacity

When required by the Control Officer, the Permittee shall perform EPA Method 9 visible emissions observations on the facility operations to demonstrate compliance with the opacity standard in I.A of this Category.

[PCC 17.12.040.B & PCC 17.20.010]

B. Particulate Matter

EPA Test Method 4 and 5 for the concentration of particulate matter and associated moisture content in I.B of this Category if requested by the Control Officer.

[PCC 17.12.180.A.3.a, PCC 17.16.170.G.1.a & PCC 17.20.010]

C. Fuel

The Permittee need only demonstrate that pipeline quality natural gas was fired exclusively since the sulfur content of pipeline quality natural gas is regulated by the Federal Energy Regulatory Commission.

[PCC 17.12.180.A.3 & PCC 17.20.010]

D. Alternative Test Method

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

[PCC 17.12.045.D]

PART B

CATEGORY J

New and Existing Stationary Source Performance Standards for the Surface Coating and Solvent Degreasing Activities
(Locally Enforceable Conditions, unless otherwise stated)

Unless otherwise stated, the provisions of this Category apply to the equipment identified in Table 7, Attachment 2 of this permit

I. Emission Limitations and Standards

A. Surface Coating Overspray Control

Confined paint spraying operations, identified in Table 7 of Attachment 2 shall be conducted in an enclosed area equipped with controls containing no less than 96 percent of the overspray. [PCC 17.16.400.C.1]

B. Standard Operating Procedure

The Permittee shall conduct spray painting activities in accordance with a Standard Operations Procedure (SOP) developed by the facility and approved by the Control Officer. [PCC 17.12.180.A.2]

C. Solvent Degreasing Gaseous/Odororous Materials and VOC Control

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. [PCC 17.16.430.D]

2. All materials used in the facility which contain VOCs, shall be transported, stored, used and processed in a manner, and by such means that they will not evaporate, leak, escape or discharge into the ambient air so as to cause or contribute to air pollution. Where means are available to effectively reduce the contribution to air pollution from evaporation, leakage or discharge, the installation and use of such control methods, devices, or equipment shall be mandatory.

[SIP Rule 344 & PCC17.16.430.F]

[Federally Enforceable Condition]

II. Monitoring Requirements

[PCC 17.12.180.A.3]

A. Conditions for Confined Paint Spray Operations

The Permittee shall demonstrate compliance with the operational limitation for the surface coating operations required in I.A of this Category by retaining documentation detailing the specifications of the arrestance ratings of the filters used in the paint spray booths. [PCC 17.12.180.A.4]

B. Conditions for the Solvent Degreasing Activities

Monitoring for gaseous/odororous materials to determine compliance with the standard in I.C.1 of this Category is not normally necessary as the use of good modern practices prevents the emission of odors beyond the property boundary.

III. Reporting Requirements

The Permittee shall report to the Control Officer any emissions in excess of the limits established by this permit according to XI.A.1 of Part A of this permit. [PCC 17.12.040]

IV. Testing Requirements

None specified in Pima County Code.

PART B

CATEGORY K

New Source Performance Standards (NSPS)
For
Combustion Turbines (40 CFR Part 60, Subpart KKKK)

NSPS Turbine Specific Conditions

Unless otherwise stated, the provisions of this Category apply to the modified T60 NSPS Stationary Gas Turbine (Equipment Identification 2050301) identified in Table 8, Attachment 2 of this permit.

I. Applicability

Stationary combustion turbines regulated under this category are exempt from the requirements of Subpart GG of Part 60 (Category B of this permit). [40 CFR 60.4305(b)]

II. Regulated Pollutants

The pollutants regulated in this category are nitrogen oxide (NO_x) and sulfur dioxide (SO₂). [40 CFR 60.4315]

III. Nitrogen Oxide Emission Limits

The Permittee shall meet the emission limits for NO_x specified in Table 1 of 40 CFR 60 Subpart KKKK. Table 1 requires the modified natural gas fired turbine with a heat input at peak load between 50 MMBtu/hr and 850 MMBtu/hr, to meet a NO_x emission standard of 42 ppm at 15 percent O₂ or 250 ng/J of useful output (2.0 lb/MWhr). [40 CFR 60.4320(a), Table 1 – Modified or reconstructed turbine firing natural gas]

IV. Sulfur Dioxide Emission Limits

- A. The Permittee shall comply with either paragraph A.1 or A.2 of this section. [40 CFR 60.4330(a)]
1. The Permittee must not cause to be discharged into the atmosphere from the subject stationary combustion turbine any gases which contain SO₂ in excess of 110 nanograms per Joule (ng/J) (0.90 pounds per megawatt-hour (lb/MWh)) gross output; [40 CFR 60.4330(a)(1)]
 2. The Permittee must not burn in the subject stationary combustion turbine any fuel which contains total potential sulfur emissions in excess of 26 ng SO₂/J (0.060 lb SO₂/MMBtu) heat input. [40 CFR 60.4330(a)(2)]

V. General Requirements

- A. The Permittee must operate and maintain the stationary combustion turbine, air pollution control equipment, and monitoring equipment in a manner consistent with good air pollution control practices for minimizing emissions at all times including during startup, shutdown, and malfunction. [40 CFR 60.4333(a)]
- B. When an affected unit with heat recovery utilizes a common steam header with one or more combustion turbines, the owner or operator shall either: [40 CFR 60.4333(b)]
1. Determine compliance with the applicable NO_x emissions limits by measuring the emissions combined with the emissions from the other unit(s) utilizing the common heat recovery unit; or

2. Develop, demonstrate, and provide information satisfactory to the Control Officer on methods for apportioning the combined gross energy output from the heat recovery unit for each of the affected combustion turbines. The Control Officer may approve such demonstrated substitute methods for apportioning the combined gross energy output measured at the steam turbine whenever the demonstration ensures accurate estimation of emissions related under 40 CFR Part 60.

VI. Monitoring

The Permittee must perform annual performance tests in accordance with 40 CFR 60.4400 to demonstrate continuous compliance. If the NO_x emission result from the performance test is less than or equal to 75 percent of the NO_x emission limit for the turbine, 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 NO_x emission limit for the turbine, you must resume annual performance tests. [40 CFR 60.4340(a)]

VII. Exemption from Monitoring Total Sulfur Content

The Permittee may elect not to monitor the total sulfur content of the fuel combusted in the turbine, if the fuel is demonstrated not to exceed potential sulfur emissions of 26 ng SO₂/J (0.060 lb SO₂/MMBtu) heat input for units located in continental areas and 180 ng SO₂/J (0.42 lb SO₂/MMBtu) heat input for units located in noncontinental areas or a continental area that the Control Officer determines does not have access to natural gas and that the removal of sulfur compounds would cause more environmental harm than benefit. The Permittee must use one of the following sources of information to make the required demonstration: [40 CFR 60.4365]

- A. The fuel quality characteristics in a current, valid purchase contract, tariff sheet or transportation contract for the fuel, specifying that the maximum total sulfur content for oil use in continental areas is 0.05 weight percent (500 ppmw) or less and 0.4 weight percent (4,000 ppmw) or less for noncontinental areas, the total sulfur content for natural gas use in continental areas is 20 grains of sulfur or less per 100 standard cubic feet and 140 grains of sulfur or less per 100 standard cubic feet for noncontinental areas, has potential sulfur emissions of less than less than 26 ng SO₂/J (0.060 lb SO₂/MMBtu) heat input for continental areas and has potential sulfur emissions of less than less than 180 ng SO₂/J (0.42 lb SO₂/MMBtu) heat input for noncontinental areas; or [40 CFR 60.4365(a)]
- B. Representative fuel sampling data which show that the sulfur content of the fuel does not exceed 26 ng SO₂/J (0.060 lb SO₂/MMBtu) for continental areas or 180 ng SO₂/J (0.42 lb SO₂/MMBtu) for noncontinental areas. At a minimum, the historical fuel sampling data for the previous 12 months shall be used in this demonstration. [40 CFR 60.4365(b), Section 2.3.1.4 or 2.3.2.4 of Appendix D to part 75]

VIII. Reporting Requirement

For each affected unit that performs annual performance tests in accordance with section VI of this category, you must submit a written report of the results of each performance test before the close of business on the 60th day following the completion of the performance test. [40 CFR 60.4375(b)]

IX. Performance Tests

- A. The Permittee must conduct an initial performance test, as required in 40 CFR 60.8. Subsequent NO_x performance tests shall be conducted on an annual basis (no more than 14 calendar months following the previous performance test). [40 CFR 60.4400(a)]

1. There are two general methodologies that you may use to conduct the performance tests. For each test run: [40 CFR 60.4400(a)(1)]
- i. Measure the NO_x concentration (in parts per million (ppm)), using EPA Method 7E or EPA Method 20 in appendix A of 40 CFR 60. For units complying with the output based standard, concurrently measure the stack gas flow rate, using EPA Methods 1 and 2 in Appendix A of 40 CFR 60, and measure and record the electrical and thermal output from the unit. Then, use the following equation to calculate the NO_x emission rate: [40 CFR 60.4400(a)(1)(i)]
- $$E = \frac{1.194 \times 10^{-7} \times (NO_x)_C \times Q_{std}}{P}$$
- Where: [40 CFR 60.4400(a)(1)(Eq. 5)]
- E = NO_x emission rate, in lb/MWh
 1.194×10^{-7} = conversion constant, in lb/dscf-ppm
 $(NO_x)_C$ = average NO_x concentration for the run, in ppm
 Q_{std} = stack gas volumetric flow rate, in dscf/hr
- P = gross electrical and mechanical energy output of the combustion turbine, in MW (for simple-cycle operation), for combined-cycle operation, the sum of all electrical and mechanical output from the combustion and steam turbines, or, for combined heat and power operation, the sum of all electrical and mechanical output from the combustion and steam turbines plus all useful recovered thermal output not used for additional electric or mechanical generation, in MW, calculated according to 40 CFR 60.4350(f)(2); or
- ii. Measure the NO_x and diluent gas concentrations, using either EPA Methods 7E and 3A, or EPA Method 20 in appendix A of this part. Concurrently measure the heat input to the unit, using a fuel flowmeter (or flowmeters), and measure the electrical and thermal output of the unit. Use EPA Method 19 in Appendix A of 40 CFR 60 to calculate the NO_x emission rate in lb/MMBtu. Then, use Equations 1 and, if necessary, 2 and 3 in 40 CFR 60.4350(f) to calculate the NO_x emission rate in lb/MWh. [40 CFR 60.4400(a)(1)(ii)]
2. Sampling traverse points for NO_x and (if applicable) diluent gas are to be selected following EPA Method 20 or EPA Method 1 (non-particulate procedures), and sampled for equal time intervals. The sampling must be performed with a traversing single-hole probe, or, if feasible, with a stationary multi-hole probe that samples each of the points sequentially. Alternatively, a multi-hole probe designed and documented to sample equal volumes from each hole may be used to sample simultaneously at the required points. [40 CFR 60.4400(a)(2)]
3. Notwithstanding paragraph IX.A.2 of this Category, the Permittee may test at fewer points than are specified in EPA Method 1 or EPA Method 20 in appendix A of 40 CFR 60 if the following conditions are met: [40 CFR 60.4400(a)(3)]
- i. The Permittee may perform a stratification test for NO_x and diluent pursuant to:
- (A) [Reserved], or
- (B) The procedures specified in section 6.5.6.1(a) through (e) of appendix A of 40 CFR part 75.

- ii. Once the stratification sampling is completed, you may use the following alternative sample point selection criteria for the performance test: [40 CFR 60.4400(a)(3)(ii)]
- (A) If each of the individual traverse point NO_x concentrations is within ±10 percent of the mean concentration for all traverse points, or the individual traverse point diluent concentrations differs by no more than ±5ppm or ±0.5 percent CO₂ (or O₂) from the mean for all traverse points, then you may use three points (located either 16.7, 50.0 and 83.3 percent of the way across the stack or duct, or, for circular stacks or ducts greater than 2.4 meters (7.8 feet) in diameter, at 0.4, 1.2, and 2.0 meters from the wall). The three points must be located along the measurement line that exhibited the highest average NO_x concentration during the stratification test; or [40 CFR 60.4400(a)(3)(ii)(A)]
- (B) For turbines with a NO_x standard greater than 15 ppm @ 15% O₂, you may sample at a single point, located at least 1 meter from the stack wall or at the stack centroid if each of the individual traverse point NO_x concentrations is within ±5 percent of the mean concentration for all traverse points, or the individual traverse point diluent concentrations differs by no more than ±3ppm or ±0.3 percent CO₂ (or O₂) from the mean for all traverse points; or [40 CFR 60.4400(a)(3)(ii)(B)]
- (C) For turbines with a NO_x standard less than or equal to 15 ppm @ 15% O₂, you may sample at a single point, located at least 1 meter from the stack wall or at the stack centroid if each of the individual traverse point NO_x concentrations is within ±2.5 percent of the mean concentration for all traverse points, or the individual traverse point diluent concentrations differs by no more than ±1ppm or ±0.15 percent CO₂ (or O₂) from the mean for all traverse points. [40 CFR 60.4400(a)(3)(ii)(C)]
- B. The performance test must be done at any load condition within plus or minus 25 percent of 100 percent of peak load. You may perform testing at the highest achievable load point, if at least 75 percent of peak load cannot be achieved in practice. You must conduct three separate test runs for each performance test. The minimum time per run is 20 minutes. [40 CFR 60.4400(b)]
1. If the stationary combustion turbine combusts both oil and gas as primary or backup fuels, separate performance testing is required for each fuel. [40 CFR 60.4400(b)(1)]
 2. For a combined cycle and CHP turbine systems with supplemental heat (duct burner), you must measure the total NO_x emissions after the duct burner rather than directly after the turbine. The duct burner must be in operation during the performance test. [40 CFR 60.4400(b)(2)]
 3. If water or steam injection is used to control NO_x with no additional post-combustion NO_x control and you choose to monitor the steam or water to fuel ratio in accordance with 40 CFR 60.4335, then that monitoring system must be operated concurrently with each EPA Method 20 or EPA Method 7E run and must be used to determine the fuel consumption and the steam or water to fuel ratio necessary to comply with the applicable 40 CFR 60.4320 NO_x emission limit. [40 CFR 60.4400(b)(3)]
 4. Compliance with the applicable emission limit in 40 CFR 60.4320 must be demonstrated at each tested load level. Compliance is achieved if the three-run arithmetic average NO_x emission rate at each tested level meets the applicable emission limit in 40 CFR 60.4320. [40 CFR 60.4400(b)(4)]
 5. If you elect to install a CEMS, the performance evaluation of the CEMS may either be conducted separately or (as described in 40 CFR 60.4405) as part of the initial performance test of the affected unit. [40 CFR 60.4400(b)(5)]
 6. The ambient temperature must be greater than 0°F during the performance test. [40 CFR 60.4400(b)(6)]

PART B

CATEGORY L

General Facility-Wide Specific Standards

The provisions of this Category apply to all facility operations.

I. General Facility-Wide Conditions

A. Facility Changes

Before installing additional units, removing units, modifying existing emission equipment or switching fuels, the Permittee shall apply for the appropriate revision pursuant to PCC 17.12.230, PCC 17.12.255 or PCC 17.12.260. [PCC 17.12.180.A.2]

B. Air Pollution Control Equipment

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 reduce or eliminate the discharge of air pollution to adjoining property. [PCC 17.16.020.B]

C. Odor Limiting Standard

1. The Permittee shall not cause or permit emissions from malodorous matter to cross a property line between the source and a residential, recreational, institutional, educational, retail sales, hotel, or business premise without minimizing the emissions by applying good modern practices. [PCC 17.16.030]
2. Monitoring for odors at the facility to determine compliance with the standard in I.C.1 of this Category 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]

II. Recordkeeping Requirement

- A. All records required by this permit shall be retained for at least five years. [PCC 17.12.180.A.4.b]
- B. The Permittee shall retain all records relating to this permit and a copy of the permit at the permit site. If it is not feasible to maintain a copy of the permit 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. [PCC 17.12.080]

III. Reporting Requirements

[PCC 17.12.180.A.5]

A. The Permittee shall report to the Control Officer any emissions in excess of the limits established by this permit according to XI.A.1 of Part A of this permit. [PCC 17.12.040]

B. Semiannual Summary Reports of Required Monitoring [PCC 17.12.180.A.5.a]

1. The Permittee shall submit reports of any required monitoring within Part B of this permit at least every six months. All instances of excess emissions and deviations from permit requirements as defined in Section XI of Part A of this permit, shall be clearly identified in such reports. All reports must be certified by a responsible official of truth, accuracy, and completeness consistent with Section VIII of Part A of this permit.

2. Summary reports shall be due by January 31st (covering the period July 1st through December 31st) and July 31st (covering the period January 1st through June 30th) of each year. The first summary report due after permit issuance may not cover a 6-month period.

C. Compliance Certification Reporting [PCC 17.12.220.A.2]

The Permittee shall submit annual compliance certifications to the Control Officer and to EPA Region IX. The compliance certification reports are due by January 31st of each year. The first report due after permit issuance may not cover a 12-month period. (See Section VII of Part A of this permit for detailed information on this report.)

D. Emissions Inventory Reporting

Every source with a Class I permit shall complete and submit an annual emissions inventory questionnaire by March 31, or 90 days after the Control Officer makes the inventory form available, whichever occurs later and shall include emission information for the previous calendar year. (See also Section VI of Part A of this permit for additional information on this report.) [PCC 17.12.320]

IV. Testing Requirements

Specific testing requirements are listed within each Category of this permit.

ATTACHMENT 1

APPLICABLE REGULATIONS

Requirements Specifically Identified as Applicable:

Code of Federal Regulations, Title 40 Part 60

Subpart A: General Provisions.

60.7(a)(1), 60.7(a)(3), 60.7(a)(4), 60.7(b), 60.7(f), 60.7(f)(3), 60.8(a), 60.8(b), 60.8(c), 60.8(d), 60.8(e), 60.8(f), 60.11(d), 60.11(g), 60.12, and 60.15

Subpart Dc: New Source Performance Standards (NSPS) for Small Industrial - Commercial - Institutional Steam Generating Units.

(60.48c(a) and 60.48c(a)(3))

40 CFR Part 60 Subpart GG: New Source Performance Standards (NSPS) for Stationary Gas Turbines.

60.330(a), 60.330(b), 60.332(a)(2), 60.333(b), 60.335(a), 60.335(b), 60.335(c), 60.335(c)(1), and 60.335(f)

40 CFR Part 60 Subpart IIII: New Source Performance Standards (NSPS) for Stationary Compression Ignition Internal Combustion Engines

40 CFR 60.4203, 60.4204(a) & Table 1 of Subpart IIII, 40 CFR 60.4206, 60.4211(a), 40 CFR 60.4207(b) & 40 CFR 80.510(b), 40 CFR 60.4207(c), 40 CFR 60.4208, 40 CFR 60.4208(a), 40 CFR 60.4208(b), 40 CFR 60.4208(c), 40 CFR 60.4208(d), 40 CFR 60.4208(e), 40 CFR 60.4208(f), 40 CFR 60.4208(g) & (h), 40 CFR 60.4211, 40 CFR 60.4211(a), PCC 17.12.180.A.2, PCC 17.12.180.A.4, 40 CFR 60.4214 (a)(1) and PCC 17.12.180.A.5, 40 CFR 60.4212 and PCC 17.12.180.A.3.a, 40 CFR 60.4218 & 40 CFR 60.4214(b) and PCC 17.12.180.A.4.

40 CFR Part 60 Subpart JJJJ: New Source Performance Standards (NSPS) for Stationary Spark Ignition Internal Combustion Engines

40 CFR 60.4230(a), 60.4230(a)(4), 60.4230(a)(4)(iv), 60.4233, 60.4233(e), 60.4234, 60.4236, 60.4236(a), 60.4236(c), 60.4236(e), 60.4243(d), 60.4234, 60.4243(a), 60.4243(b), 60.4243(b)(1), 60.4237(b), 60.4245, 60.4245(a)(2), 60.4245(a)(3), 60.4244 and 60.4246.

Code of Federal Regulations, Title 40 Part 63, Subpart ZZZZ

40 CFR Part 63 Subpart ZZZZ: National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

40 CFR 63.6585, 63.6590 (a)(iii), 63.6595, 63.66039(a), 63.6605(a) and (b), 63.6625(e)(4), 63.6625(h), 63.6625(i), 63.6640(a), 63.6645(a)(5), 63.6655(a)(1, 2, 4 & 5), 63.6660, 63.6670(a), Table 2d, (Row 1) & footnote 1, Table 6 (Row 9)

General Provisions (40 CFR Part 63) – See Table 8: Yes, except 63.6645(a)(5), the following do not apply:

63.7(b) and (c), 63.8(e), (f)(4) and (f)(6), and 63.9(b)-(e), (g) and (h)

Code of Federal Regulations, Title 40 Part 60, Subpart KKKK

40 CFR Part 60 Subpart KKKK: New Source Performance Standards for Combustion Turbines

40 CFR 60.4305(b), 61.4315, 60.4320(a), 60.4330(a)(1), 60.4330(a)(2), 60.4333(a), 60.4333(b), 60.4340(a), 60.4365, 60.4365(a), 60.4365(b), Section 2.3.1.4 or 2.3.2.4 of Appendix D to part 75, 60.4375(b), 60.4400(a), 60.44000(a)(1), 60.4400(a)(1)(i), 60.4400(a)(1)(Eq. 5), 60.4400(a)(1)(ii), 60.4400(a)(2), 60.4400(a)(3), 60.4400(a)(3)(ii), 60.4400(a)(3)(ii)(B), 60.4400(a)(3)(ii)(C), 60.4400(b), 60.4400(b)(1), 60.4400(b)(2), 60.4400(b)(3), 60.4400(b)(4), 60.4400(b)(5), 60.4400(b)(6).

Pima County SIP:

- Rule 224 Fugitive Dust Producing Activities
- Rule 313 Incinerators
- Rule 314 Petroleum Liquids
- Rule 316 Particulate Materials (Subsections A, C, D)
- Rule 321 Emissions Discharge Opacity Limiting Standards - Standards and Applicability (Includes NESHAP)
- Rule 332 Compilation of Mass Rates and Concentrations (NESHAPS)
- Rule 343 Visibility Limiting Standard
- Rule 344 Odor Limiting Standards

Pima County Code (PCC) Title 17:

- 17.12.180 Permit Contents for Class I permits
- 17.12.190 Permits Containing Synthetic Emission Limitations and Standards
- 17.16.010 Local Rules and Standards – Applicability of More Than One Standard
- 17.16.040 Visible Emission Standards - Standards and Applicability (Includes NESHAP)
- 17.16.050 Visibility Limiting Standard
- 17.16.160 Standards of Performance for Fossil-Fuel Fired Steam Generators and General Fuel Burning Equipment
- 17.16.165.C Standards of Performance for Fossil-Fuel Fired Industrial and Commercial Equipment (Particular Matter Limitation)
- 17.16.165.E Standards of Performance for Fossil-Fuel Fired Industrial and Commercial Equipment (Sulfur Dioxide Limitation)
- 17.16.170 Incinerators
- 17.16.230 Standards of Performance for Storage Vessels for Petroleum Liquids
- 17.16.340 Standards of Performance for Stationary Rotating Machinery
- 17.16.400 Organic Solvents and Other Organic Materials (Sections A and C)
- 17.16.490 Standards of Performance for New Stationary Sources (NSPS) – Subpart IIII
- 17.16.510 Standards of Performance for Incinerators

ATTACHMENT 2**EQUIPMENT LIST****TABLE 1: NSPS Small Industrial-Commercial-Institutional-Steam Generating Units (Part B, Category A)**

Type of Equipment	Equipment ID	Primary Fuel	Manufacturer	Model	Serial Number	Maximum Rated Capacity (MMBtu/hr)	Model year/ Applicability Date ¹
Boiler	460303	Natural Gas	Rentech	860	2001-07	59.52	2001
Boiler	460304	Natural Gas	Rentech	860	2001-09	59.52	2001
Boiler	460305	Natural Gas	Combustion Engineering	CE Type VU-10	N/A	67.50	2002
Boiler	460307	Natural Gas	Miura	LX-300 SG	48S414008U	11.54	2014
Boiler	460308	Natural Gas	Miura	LX-300 SG	48S414025U	11.54	2014
Boiler	460309	Natural Gas	Miura	LX-300 SG	48S414026U	11.54	2014
Boiler	2050208	Natural Gas	Rentech	860	2001-05	42.20	2001
Boiler	2050209	Natural Gas	Rentech	860	2001-03	42.20	2001
Boiler	2050210	Natural Gas	English Boiler & Tube, Inc.	50 DS 250	27033	60.10	2008

¹ The most recent date of order, manufacture, reconstruction, or modification.

TABLE 2: NSPS Stationary Gas Turbines (Part B, Category B)

Type of Equipment	Equipment ID	Primary Fuel	Manufacturer	Model	Serial Number	Maximum Rated Capacity (MW)	Date of Manufacture
Turbine	460306	Natural Gas	Taurus	T70S	TG01588	7	2001

TABLE 3: Compression Ignition Internal Combustion Engines (Part B, Categories C, D, & E)

Type of Equipment	Equipment ID	Primary Fuel	Manufacturer	Model	Serial Number	Maximum Rated Capacity ¹	Model year/ Applicability Date ²	Voluntary Operating Hours Limit (hrs/yr)	NSPS Subpart III Applicability Y/N
Emergency Generator	Spare 2	Diesel	Olympian	D200P4	OLYOOOOOLNNS00475	200	2002	100	N
Generator	Spare 7	Diesel	Caterpillar	XQ60	E5M00771	98 HP	2008	100	N
Emergency Generator	40105	Diesel	Kohler	50R0ZJ71	289529	55	1993	100	N
Emergency Generator	290001	Diesel	Generac Olympian	96A02642-S	2028042	10	1996	100	N
Emergency Generator	45B0001	Diesel	Cummins	QSB7-G5 NR3	73406031	242	2012	100	Y (Category D)
Emergency Generator	4700001	Diesel	Kohler (Generator) John Deere (Engine)	6359T (Engine)	T06059T308972 (Engine)	100 (134 HP)	1990	100	N
Emergency Generator	550103	Diesel	Caterpillar (Generator and Engine)	C15	FSE02883	350	2009	100	Y (Category D)
Emergency Generator	670112	Diesel	Caterpillar	C6.6	E6L00732	175	May 7, 2013	100	Y (Category D)
Emergency Generator	730104	Diesel	Kohler	KTTA19GS1	D8900232504	450	1985	100	N
Emergency Generator	730105	Diesel	Caterpillar	R43-CD	G5X00092	1750	2007	100	Y (Category D)
Emergency Generator	730106	Diesel	Kohler	60R0ZJ71	262596	33	1990	100	N
Emergency Generator	Spare 8	Diesel	Caterpillar	C6.6	E6M02060	230 HP	2010	100	Y (Category D)
Emergency Generator	760101	Diesel	Caterpillar	SR43306	66D39660	155	1976	100	N
Emergency Generator	760103	Diesel	Caterpillar	TBD	TBD	650	TBD	100	Y
Emergency Generator	460205	Diesel	Caterpillar	TBD	TBD	600	2011	100	Y
Emergency Generator	770101	Diesel	Cummins	500FDR7116JJW	PA-19-50676-1/27-5	250	1986	100	N

TABLE 3: Compression Ignition Internal Combustion Engines (Part B, Categories C, D, & E) - continued

Type of Equipment	Equipment ID	Primary Fuel	Manufacturer	Model	Serial Number	Maximum Rated Capacity ¹	Model year/ Applicability Date ²	Voluntary Operating Hours Limit (hrs/yr)	NSPS Subpart III Applicability Y/N
Emergency Generator	900001	Diesel	Caterpillar (Generator and Engine)	C15	C5E02719	689 HP	2010	100	Y (Category D)
Emergency Generator	1010103	Diesel	Caterpillar	SR4-3406	6HF00351	275	1990	100	N
Emergency Generator	1030111	Diesel	Kohler	50R0Z271	222084	50	1988	100	N
Emergency Generator	1040206	Diesel	Onan	1250DVD15R	H850774146	125	1986	100	N
Emergency Generator	1060101	Diesel	Caterpillar	3406B SR4	7CF00428	300	1990	100	N
Emergency Generator	1070101	Diesel	Katolite	D500FRX4	XJ3801465 K-38504	500	1992	100	N
Emergency Generator	1080106	Diesel	Katolite	D300FRZ4	WK3726615	300	1991	100	N
Emergency Generator	1130302	Diesel	Caterpillar	C9	S9L03579	480 HP	2010	100	Y (Category D)
Emergency Generator	1200101	Diesel	Cutler Hammer	432RSL4015 (Generator)	WA-GM06616-01-0994 Type RSL (Generator)	200	1996	100	N
Emergency Generator	1310001	Diesel	John Deere	6068HF485T	0G3639	297 HP	2010	100	Y (Category D)
Emergency Generator	1320001	Diesel	Iveco	F3BE9685A-E	OH2052	560 HP	2010	100	Y (Category D)
Emergency Generator	1370001	Diesel	Cummins	QSL9-G7 NR3	S73618948	300	2013	100	Y (Category D)
Emergency Generator	1580001	Diesel	Kohler	250R0ZD71	364350	250	1996	100	N

TABLE 3: Compression Ignition Internal Combustion Engines (Part B, Categories C, D, & E) - continued

Type of Equipment	Equipment ID	Primary Fuel	Manufacturer	Model	Serial Number	Maximum Rated Capacity ¹	Model year/ Applicability Date ²	Voluntary Operating Hours Limit (hrs/yr)	NSPS Subpart III Applicability Y/N
Emergency Generator	1760103	Diesel	Caterpillar (Generator & Engine)	C4.4ACERTTA (Engine)	E5M00551 (Engine)	100 (156.9 HP)	May 14, 2008	100	Y (Category D)
Emergency Generator	2050211	Diesel	Caterpillar	C15	FSE03601	645	2010	100	Y
Emergency Generator	2010407	Diesel	Caterpillar	C32	PRH04058	1000	Oct 21, 2013	100	Y (Category D)
Emergency Generator	2070101	Diesel	Caterpillar	3406SR4	48BH5223	260	1981	100	N
Emergency Generator	2210105	Diesel	Kohler	600ROZ71	252273	600	1990	100	N
Emergency Generator	2030101	Diesel	Caterpillar	C32PDGD-1000EKW	PRH08166	1483 hp	2018	100	Y (Category D)
Emergency Generator	58E0001	Diesel	Cummins	QSB7-G5-NR3	73396234	242	2012	100	Y (Category D)

1 Maximum Rated Capacity listed in kilowatts, unless noted otherwise.

2 The most recent date of order, manufacture, reconstruction, or modification.

Table 3a: Compression Ignition Internal Combustion Engines (Part B, Category F)

Type of Equipment	Equipment ID	Primary Fuel	Manufacturer	Model	Serial Number	Maximum Rated Capacity ¹	Model year/ Applicability Date ²	Voluntary Operating Hours Limit (hrs/yr)	NESHAP Subpart ZZZZ Applicability Y/N
Generator	1740101	Diesel	MQ Power Whisper Quiet	DCA45USI	8200371	38.2 HP	2004	1500	Y

TABLE 4: Spark Ignition Internal Combustion Engines (Part B, Category E)

Type of Equipment	Equipment ID	Primary Fuel	Manufacturer	Model	Serial Number	Maximum Rated Capacity ¹	Model year/ Applicability Date ²	Voluntary Operating Hours Limit (hrs/yr)	NSPS Subpart JJJJ Applicability Y/N
Emergency Generator	Spare 5	Natural Gas	Kohler	115R72	435510	110	1976	100	N
Emergency Generator	20805	Natural Gas	Kohler	30R82	293726	30	1972	100	N
Emergency Generator	50109	Natural Gas	Kohler	10RM82	62606	10	1978	100	N
Emergency Generator	70105	Natural Gas	Generac	09428-5 (Engine)	3152386 (Engine)	8	2000	100	N
Emergency Generator	80101	Natural Gas	Kohler	10RM82	55653	10	1978	100	N
Emergency Generator	100111	Natural Gas	Kohler	10RM82	55675	10	1978	100	N
Emergency Generator	170608	Natural Gas	Kohler	200RZD	0677238	205	2001	100	N
Emergency Generator	310111	Natural Gas	Kohler	10RM82	062108	10	1978	100	N
Emergency Generator	340101	Natural Gas	Kohler	10RM82	60760	10	1978	100	N
Emergency Generator	370101	Natural Gas	Kohler	170R82	354006	170	1975	100	N
Emergency Generator	440001	Natural Gas	Caterpillar	ZBA0014 63516LE	SR4B	1040	2006	100	N

1. Maximum Rated Capacity listed in kilowatts, unless noted otherwise.
2. The most recent date of order, manufacture, reconstruction, or modification.

TABLE 4: Spark Ignition Internal Combustion Engines (Part B, Category E) - continued

Type of Equipment	Equipment ID	Primary Fuel	Manufacturer	Model	Serial Number	Maximum Rated Capacity ¹	Model year/ Applicability Date ²	Voluntary Operating Hours Limit (hrs/yr)	NSPS Subpart JJJJ Applicability Y/N
Emergency Generator	500103	Natural Gas	Kohler	20R82	62077	20	1978	100	N
Emergency Generator	520106	Natural Gas	Kohler	20R82	62074	20	1978	100	N
Emergency Generator	540101	Natural Gas	Kohler	15R82	330317	15	1972	100	N
Emergency Generator	550102	Natural Gas	Kohler	250R72	413893	250	1976	100	N
Emergency Generator	590110	Natural Gas	Kohler	30RZ82	59240	30	1978	100	N
Emergency Generator	630004	Natural Gas	Generac	3991750200	2076801	70	2004	100	N
Emergency Generator	630104	Natural Gas	Kohler	55R82	436724	50kW	1976	100	N
Emergency Generator	650304	Natural Gas	Generac	91A03104-S	2000390	20	1992	100	N
Emergency Generator	670111	Natural Gas	Kohler	45R82	272394	45	1972	100	N
Emergency Generator	680108	Natural Gas	Kohler	GGHD-3385225	A000044019	100	2000	100	N
Emergency Generator	690101	Natural Gas	Kohler	30R82	305544	30	1972	100	N
Emergency Generator	700101	Natural Gas	Stamford	GTA1462 (Engine)	12006745 (Engine)	280	2001	100	N
Emergency Generator	790104	Natural Gas	Kohler	30RZ82	58696	30	1978	100	N
Emergency Generator	830107	Natural Gas	Kohler	30RZ82	59243	30	1978	100	N

1. Maximum Rated Capacity listed in kilowatts, unless noted otherwise.
2. The most recent date of order, manufacture, reconstruction, or modification.

TABLE 4: Spark Ignition Internal Combustion Engines (Part B, Category E) – continued

Type of Equipment	Equipment ID	Primary Fuel	Manufacturer	Model	Serial Number	Maximum Rated Capacity ¹	Model year/ Applicability Date ²	Voluntary Operating Hours Limit (hrs/yr)	NSPS Subpart JJJJ Applicability Y/N
Emergency Generator	850106	Natural Gas	Kohler	15R82	268449	15	1972	100	N
Emergency Generator	880002	Natural Gas	Generac	2588320100	2069026	100	2002	100	N
Emergency Generator	880104	Natural Gas	Kohler	45R82 78123B29	308023	45	1972	100	N
Emergency Generator	890101	Natural Gas	Kohler	15RM82	292617	15	1978	100	N
Emergency Generator	890102	Natural Gas	Olympian	G25LTA	4G64S4M	25	March 27, 2013	100	Y (Category E)
Emergency Generator	920207	Natural Gas	Cummins	UC1274D/14	375242	100	1992	100	N
Emergency Generator	940001	Natural Gas	Kohler	45R82	301350	45	1972	100	N
Emergency Generator	940405	Natural Gas	Stamford (New Age)	GTA855G1 (Engine)	25292829 (Engine)	185	2005	100	N
Emergency Generator	950001	Natural Gas	Energy Dynamics	EDI250NLC	207723	250	2002	100	N
Emergency Generator	960102	Natural Gas	Caterpillar	G13.3	EK130A16180	274 HP	2010	100	Y (Category E)
Emergency Generator	1000101	Natural Gas	Onan	GGFB3387825	R000061634	35	2000	100	N
Emergency Generator	1170202	Natural Gas	Cummins Generator with Ford Engine	WSF-1068 (engine)	E182A300708212028	131.1 kW 176 hp	July 30, 2008	100	N
Emergency Generator	1180101	Natural Gas	Generac	94A05936-S	2017719	60	1995	100	N
Emergency Generator	1190206	Natural Gas	Stamford	GTA28 (Engine)	25199549 (Engine)	375	1996	100	N

1. Maximum Rated Capacity listed in kilowatts, unless noted otherwise.
2. The most recent date of order, manufacture, reconstruction, or modification.

TABLE 4: Spark Ignition Internal Combustion Engines (Part B, Category E) – continued

Type of Equipment	Equipment ID	Primary Fuel	Manufacturer	Model	Serial Number	Maximum Rated Capacity ¹	Model year/ Applicability Date ²	Voluntary Operating Hours Limit (hrs/yr)	NSPS Subpart JJJJ Applicability Y/N
Emergency Generator	1810001	Natural Gas	Cummins	GGHG-5563083	F020381388	85	2003	100	N
Emergency Generator	1820001	Natural Gas	Cummins	GGHG-5585111	K020435538	85	2003	100	N
Emergency Generator	2020001	Natural Gas	Cummins	GGHH5699478	L040727899	100	2006	100	N
Emergency Generator	2220105	Natural Gas	Cummins	GTA28 (Engine)	25Z10168 (Engine)	515	1996	100	N
Emergency Generator	2400001	Natural Gas	Caterpillar	SR4B	2DM02272	1040	2006	100	N
Emergency Generator	2400002	Natural Gas	Caterpillar	SR4B	2DM02273	1040	2006	100	N
Emergency Generator	2410001	Natural Gas	Caterpillar	SR4B	2DM02332	1040	2006	100	N
Emergency Generator	180B0002	Natural Gas	Onan	GGKD-5668125	C040615971	150	2001	100	N
Emergency Generator	4680001	Natural Gas	Kohler	8.5 RMY	0634522	10	2006	100	N

1. Maximum Rated Capacity listed in kilowatts, unless noted otherwise.
2. The most recent date of order, manufacture, reconstruction, or modification.

TABLE 5: Fossil-Fuel Fired Industrial and Commercial Equipment (Boilers, not subject to NSPS, Part B, Category H)

Type of Equipment	Equipment ID	Primary Fuel	Manufacturer	Model	Serial Number	Maximum Rated Capacity (MMBtu/hr)	Date of Manufacture
Boiler	170004	Natural Gas	Parker	50L	52560	1.995	Unknown
Boiler	850105	Natural Gas	Parker	WH-3000	38510	3.000	1990
Boiler ¹	96A0106 ¹	Natural Gas	Raypak	P-1802B	1111332068	1.800	2011
Boiler ¹	96A0107 ¹	Natural Gas	Raypak	P-1802B	1111332067	1.800	2011
Boiler ²	96A0104A ²	Natural Gas	Pentair Pool Products	Master Temp 400	11171640901795	0.400	June 13, 2009
Boiler ²	96A0104B ²	Natural Gas	Pentair Pool Products	Master Temp 400	1117164090180Y	0.400	June 13, 2009
Boiler ²	96A0104C ²	Natural Gas	Pentair Pool Products	Master Temp 400	111716409169M	0.400	June 13, 2009
Boiler ¹	142001	Natural Gas	Daikin	RPS110DLAS6	FBOU181101104	1.25	November 23, 2018
Boiler ¹	142002	Natural Gas	Daikin	RPS110DLAS6	FBOU181101568	1.25	November 23, 2018
Boiler	1080201	Natural Gas	Parker	T1730R	961429	1.730	1999
Boiler	1080202	Natural Gas	Parker	T1730R	N/A	1.730	1999
Boiler	1170304	Natural Gas	Parker	WH2650	57486	2.65	2006
Boiler	1180002	Natural Gas	Raypak	H3-1631A-CECRAA	9312112040	1.63	1995
Boiler	1310102	Natural Gas	Parker	WH1210	59661	1.21	2009
Boiler	1320002	Natural Gas	Parker	WH2270	59648	2.27	2009
Boiler	1510103	Natural Gas	Parker	WH1210	60782	1.210	2012
Boiler	1760101	Natural Gas	Parker	T2160R	50650	2.160	1999

¹. These units are located at Hillenbrand Pool, Building 96A.

TABLE 6: Pathological Incinerator (Part B, Category I)

Type of Equipment	Equipment ID	Primary Fuel	Manufacturer	Model	Serial Number	Date of Manufacture
Incinerator	1010102	Natural Gas	International	300CA	89225	1989

TABLE 7: Paint Spray Booths (Part B, Category J)

Type of Equipment	Equipment ID	Manufacturer	Model	Serial Number
Facilities Management Paint Spray Booth	206A0001	Custom Equipment		

TABLE 8: NSPS Stationary Combustion Turbines (Part B, Category K)

Type of Equipment	Equipment ID	Primary Fuel	Manufacturer	Model ¹	Serial Number	Maximum Rated Capacity (MMBtu/hr)	Date of Manufacture
Turbine	2050301	Natural Gas	Solar	Taurus 60-7801S (T-60)	OHH15-T4948	55.79	11/15/2015 ²

¹ The last digit of this model number corresponds to the number of engine shafts; however, Solar provides engine data for each type of engine and does not differentiate data based on number of shafts. Therefore, the engine data provided for Model Number 60-7800S in the permit revision to incorporate the modified turbine engine corresponds to this engine.

² The turbine engine was modified on 11/15/2015. The original date of manufacture was 2001.