

PIMA COUNTY DEPARTMENT OF ENVIRONMENTAL QUALITY

33 North Stone Avenue, Suite 700 • Tucson, AZ 85701 • Phone: (520) 724-7400

AIR QUALITY OPERATING PERMIT

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

ISSUED TO

**NRG ENERGY CENTER TUCSON LLC
(COMMUNITY CENTER)**

**260 S. CHURCH AVENUE
TUCSON, ARIZONA 85701**

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

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

PERMIT NUMBER **1817**

PERMIT CLASS **II**

ISSUED: **JANUARY 28, 2016**

EXPIRES: **JANUARY 27, 2021**



SIGNATURE

Rupesh Patel, Air Permit Manager, PDEQ

TITLE

TABLE OF CONTENTS

Permit Summary	3
Emission Sources	4
Section A: National Emissions Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines (RICE)	
I. Applicability.....	5
II. Compliance Dates.....	5
III. Emission and Operating Limitations.....	5
IV. Testing and Initial Compliance Requirements.....	6
V. Continuous Compliance Requirements.....	8
VI. Notifications, Reports and Records.....	10
VII. Submission of Reports.....	10
VIII. Recordkeeping Requirements.....	13
IX. Structure and Retention of Records.....	15
Section B: New and Existing Stationary Source Performance Standards for Fossil-Fuel Fired Industrial and Commercial Equipment	
I. Emission Limitations and Standards.....	16
II. Monitoring Requirements.....	16
III. Recordkeeping Requirements.....	16
IV. Reporting Requirements.....	16
V. Testing Requirements.....	17
VI. Facility Changes.....	17
Section C: General Facility-Wide Specific Standards	18
I. General Facility-Wide Specific Standards	
II. Recordkeeping Requirements	
III. Reporting Requirements	
IV. Testing Requirements	
Additional Permit Requirements	19
I. Compliance with Permit Conditions	
II. Permit Revision, Reopening, Revocation and Reissuance, or Termination for Cause	
III. Duty to Provide Information	
IV. Severability Clause	
Attachment 1: Applicable Regulations	20
Attachment 2: Equipment List	21

PERMIT SUMMARY

NRG Energy Center Tucson, LLC, (NRG) is a municipality providing combined heat and power and district energy to several buildings within downtown Tucson, Arizona. The municipality is a subsidiary of NRG Energy Center Tucson who is a subsidiary of Northwind Phoenix.

The emission sources for NRG are located at 260 S. Church Ave, Tucson, Arizona 85701.

This operating permit is a renewal of an existing 5-year permit. Potential emissions resulting from the facility operations include NO_x, VOC, HAPs, PM₁₀, SO_x and CO.

The annual allowable Potential to Emit for individual pollutants, from all NRG operations is quantified in the Table below. These numbers are for reference purposes only and 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.

Pollutant	Potential Emissions (Tons per Year)
Nitrogen Oxides (NO _x)	30.43
Carbon Monoxide (CO)	6.78
Sulfur Oxides (SO _x)	0.04
Volatile Organic Compounds (VOC)	0.58
Particulate Matter (as PM ₁₀)	0.53
Hazardous Air Pollutants (HAPs – total)	0.20

Potential combustion emissions of NO_x calculated from propriety information; CO calculated from Catalyst Efficiency Test Report dated March 18, 2014¹, PM and SO_x are calculated using AP-42 emission factors for permitted equipment.

The facility is a **True Minor for all regulated air pollutants.**

¹ Test report for Jenbacher 612 Engine/Generator Operated by Arizona Public Service Company Energy Services for The City of Tucson Community Center. Prepared by EnCon² Systems, Inc. Dated March 18, 2014.

EMISSION SOURCES

The affected emission sources at the facility are grouped into the following emission limiting Sections:

- Section A** National Emissions Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines (40 CFR Part 63 Subpart ZZZZ).
- Section B** New and Existing Stationary Source Performance Standards for Fossil-Fuel Fired Industrial and Commercial Equipment
- Section C** Facility Wide Specific Conditions.

SECTION A

NATIONAL EMISSIONS STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR STATIONARY RECIPROCATING INTERNAL COMBUSTION ENGINES

I. APPLICABILITY

[40 CFR 63.6590(a)(1)(iii)]

This Section contains emission limitations and operating limitations for hazardous air pollutants (HAP) emitted from Existing Non-Emergency Spark Ignition 4-Stroke Lean Burn stationary reciprocating internal combustion engines (RICE) – that operate more than 24 hours per year, located at area sources of HAP emissions.

This Section also contains requirements to demonstrate initial and continuous compliance with the emission limitations and operating limitations. In addition, the Additional Permit Requirements listed in Section C of this permit are also applicable.

The applicable emission units are existing stationary RICE located at an area source of HAP emissions. (Stationary RICE is existing if the Permittee commenced construction or reconstruction of the stationary RICE before June 12, 2006). See Table 3, Attachment 2 of this permit for a list of the applicable emission units.

II. COMPLIANCE DATES

The Permittee shall comply with the applicable emission limitations and operating limitations identified within this Section no later than October 19, 2013.

[40 CFR 63.6595(a)(1)]

III. EMISSION AND OPERATING LIMITATIONS

A. Compliance Determination

Compliance with the numerical emission limitations in this Section is based on the results of testing the average of three 1-hour runs using the testing requirements and procedures in IV.C and IV.A of this Section.

[40 CFR 63.6603, & 40 CFR 63.6620]

B. Applicable Compliance Requirements

The Permittee shall comply with the requirements in III.C of this Section which apply to the applicable emission unit.

[40 CFR 63.6603(a), 40 CFR Subpart ZZZZ, Table 2d & Table 2b]

C. Carbon Monoxide Limitation

1. The Permittee shall limit the concentration of carbon monoxide (CO) in the Stationary RICE exhaust to 47 ppmvd at 15 percent O₂ or;

[40 CFR Subpart ZZZZ: Table 6, 14]

2. Reduce CO emissions by 93 percent or more.

[40 CFR Subpart ZZZZ: Table 6, 14]

D. Hazardous Air Pollutant (HAP) Limitation

The Permittee shall install an oxidation catalyst to reduce HAP emissions from the stationary RICE.

[40 CFR Subpart ZZZZ: Table 2d, 9 & Table 6, 14]

E. Catalyst Inlet Temperature

1. The Permittee shall install a CPMS to continuously monitor catalyst inlet temperature or install equipment to automatically shut down the engine if the catalyst inlet temperature exceeds 1350 °F
[40 CFR 63.6640(a), Table5, 13.a.ii]
2. The Permittee shall immediately shutdown the engine if the catalyst inlet temperature exceeds 1350 °F.
[40 CFR 63.6640(a), Table 6, 14.a.iii]

F. Work Management Practices

1. The Permittee shall operate and maintain the stationary RICE according to the manufacturer's emission-related operation and maintenance instructions; or
[40 CFR 63.6640(a), Table 6, 9.a.i]
2. Develop and follow your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.
[40 CFR 63.6640(a), Table 6, 9.a.ii]

G. General Requirements

1. The Permittee shall comply with the emission limitations and operating limitations identified in III of this Section at all times.
[40 CFR 63.6605(a)]
2. The Permittee must at all times, operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the Permittee to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the 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. TESTING AND INITIAL COMPLIANCE REQUIREMENTS

A. Initial Performance Test and Initial Compliance Demonstrations

1. The Permittee shall conduct any initial performance test or other initial compliance demonstration according to IV.A.1 of this Section that apply within 180 days after May 3, 2013 and according to the provisions in 40 CFR 63.7(a)(2). The referenced initial performance test or other initial compliance demonstration requirements for the applicable stationary RICE are presented below:
[40 CFR 63.6612(a), 40 CFR 63.6595, 40 CFR 63.7(a)(2) & 40 CFR Subpart ZZZZ : Table 4]
 - a. The Permittee shall comply with the carbon monoxide limitation in III.C.1 of this Section according to the following conditions (i through iv)
[40 CFR Subpart ZZZZ : Table 4, 3.a]
 - i. The Permittee shall select the sampling port location and the number/location of traverse points at the exhaust of the stationary RICE. For CO, O2, and moisture measurement, ducts ≤6 inches in diameter may be sampled at a single point located at the duct centroid and ducts >6 and ≤12 inches in diameter may be sampled at 3 traverse points located at 16.7, 50.0, and 83.3% of the measurement line ('3-point long line'). If the duct is >12 inches in diameter and the sampling port location meets the two and half-diameter criterion of Section 11.1.1 of Method 1 of 40 CFR part 60, appendix A, the duct may be sampled at '3-point long line'; otherwise, conduct the stratification testing and select

sampling points according to Section 8.1.2 of Method 7E of 40 CFR part 60, appendix A. If using a control device, the sampling site must be located at the outlet of the control device. [40 CFR Subpart ZZZZ : Table 4, 3.a.i.(a)]

- ii. The Permittee shall determine the O₂ concentration of the stationary RICE exhaust at the sampling port location using Method 3 or 3A or 3B of 40 CFR part 60, appendix A-2, or ASTM Method D6522-00 (Reapproved 2005) (heated probe not necessary). Measurements to determine O₂ concentration must be made at the same time and location as the measurements for CO concentration. [40 CFR Subpart ZZZZ : Table 4, 3.a.ii.(1)(a)]
 - iii. The Permittee shall measure moisture content of the stationary RICE exhaust at the sampling port location using Method 4 of 40 CFR part 60, appendix A-3, or Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348-03. Measurements to determine moisture content must be made at the same time and location as the measurements for CO concentration. [40 CFR Subpart ZZZZ : Table 4, 3.a.iii.(1)(a)]
 - iv. The Permittee shall measure CO at the exhaust of the stationary RICE using Method 10 of 40 CFR part 60, appendix A-4, ASTM Method D6522-00 (2005), Method 320 of 40 CFR part 63, appendix A, or ASTM D6348-03. CO concentration must be at 15 percent O₂, dry basis. Results of this test consist of the average of the three 1-hour or longer runs. [40 CFR Subpart ZZZZ : Table 4, 3.a.v.(1)(a)]
- b. The Permittee shall comply with the carbon monoxide limitation in III.C.2 of this Section according to the following conditions (i through iii). [40 CFR Subpart ZZZZ : Table 4, 1.a]
- i. The Permittee shall select the sampling port location and the number/location of traverse points at the inlet and outlet of the control device; and for CO and O₂ measurement, ducts ≤6 inches in diameter may be sampled at a single point located at the duct centroid and ducts >6 and ≤12 inches in diameter may be sampled at 3 traverse points located at 16.7, 50.0, and 83.3% of the measurement line (‘3-point long line’). If the duct is >12 inches in diameter and the sampling port location meets the two and half-diameter criterion of Section 11.1.1 of Method 1 of 40 CFR part 60, appendix A-1, the duct may be sampled at ‘3-point long line’; otherwise, conduct the stratification testing and select sampling points according to Section 8.1.2 of Method 7E of 40 CFR part 60, appendix A-4. [40 CFR Subpart ZZZZ: Table 4, 1.a.i.(a)]
 - ii. The Permittee shall measure the O₂ at the inlet and outlet of the control device; and using Method 3 or 3A or 3B of 40 CFR part 60, appendix A-2, or ASTM Method D6522-00 (Reapproved 2005) (heated probe not necessary). Measurements to determine O₂ must be made at the same time as the measurements for CO concentration. [40 CFR Subpart ZZZZ: Table 4, 1.a.ii.(1)(b)]
 - iii. The Permittee shall measure CO at the inlet and outlet of the control device using ASTM D6522-00 (Reapproved 2005) (heated probe not necessary) or Method 10 of 40 CFR part 60, appendix A-4. [40 CFR Subpart ZZZZ: Table 4, 1.a.iii.(1)(c)]
2. The Permittee is not required to conduct an initial performance test on a unit for which a performance test has been previously conducted, but the test must meet all of the conditions described in IV.A.2.a through d of this Section. [40 CFR 63.6612(b)]
- a. The test must have been conducted using the same methods specified in Subpart ZZZZ, and these methods must have been followed correctly. [40 CFR 63.6612(b)(1)]
 - b. The test must not be older than 2 years. [40 CFR 63.6612(b)(2)]
 - c. The test must be reviewed and accepted by the Control Officer. [40 CFR 63.6612(b)(3)]

- d. Either no process or equipment changes must have been made since the test was performed, or the Permittee must be able to demonstrate that the results of the performance test, with or without adjustments, reliably demonstrate compliance despite process or equipment changes. [40 CFR 63.6612(b)(4)]
3. Initial compliance demonstration with the emission limitations and operating limitations. [40 CFR 63.6630(e)]

The initial compliance demonstration required for existing non-emergency 4SLB stationary RICE with a site rating of more than 500 HP located at an area source of HAP that are not remote stationary RICE and that are operated more than 24 hours per calendar year must be conducted according to the following requirements:

- a. The compliance demonstration must consist of at least three test runs.
- b. Each test run must be of at least 15 minute duration, except that each test conducted using the method in Appendix A to 40 CFR 63, Subpart ZZZZ, must consist of at least one measurement cycle and include at least 2 minutes of test data phase measurement.
- c. If you are demonstrating compliance with the CO concentration or CO percent reduction requirement, you must measure CO emissions using one of the CO measurement methods specified in Table 4 of 40 CFR 63, Subpart ZZZZ, or using Appendix A to 40 CFR 63, Subpart ZZZZ.
- d. If you are demonstrating compliance with the THC percent reduction requirement, you must measure THC emissions using Method 25A, reported as propane, of 40 CFR Part 60, Appendix A.
- e. You must measure O₂ using one of the O₂ measurement methods specified in Table 4 of 40 CFR 63, Subpart ZZZZ. Measurements to determine O₂ concentration must be made at the same time as the measurements for CO or THC concentration.
- f. If you are demonstrating compliance with the CO or THC percent reduction requirement, you must measure CO or THC emissions and O₂ emissions simultaneously at the inlet and outlet of the control device.

V. CONTINUOUS COMPLIANCE REQUIREMENTS

- A. Monitoring and Collection of Data to Demonstrate Continuous Compliance [40 CFR 63.6635]

To demonstrate compliance with the emission and operating limitations of this Section, the Permittee must monitor and collect data according to the following: [40 CFR 63.6635(a)]

- 1. Except for monitor malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the Permittee must monitor continuously at all times that the stationary RICE is operating. [40 CFR 63.6635(b)]
- 2. The Permittee may not use data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities in data averages and calculations used to report emission or operating levels. The Permittee must, however, use all the valid data collected during all other periods. [40 CFR 63.6635(c)]

- B. Work Management Practices for existing non-emergency 4SLB and 4SRB stationary RICE >500 HP located at an area source of HAP that operate 24 hours or less per calendar year.

The Permittee must report each instance in which the Permittee did not meet the HAP emission limitation or operating limitation in III.D and III.E respectively of this Section (Tables 2b and Table 2d in subpart ZZZZ as applicable). These instances are deviations from the emission and operating limitations in this subpart ZZZZ. These deviations must be reported according to the requirements in VII of this Section. If you change your catalyst, you must re-establish the values of the operating parameters measured during the initial performance test. When you re-establish the values of your operating parameters, you must also conduct a performance test to demonstrate that you are meeting the required emission limitation applicable to your stationary RICE. [40 CFR 63.6640(b)]

- C. Demonstration of Continuous Compliance with the emission limitations and operating limitations. [40 CFR 63.6640(c)]

The annual compliance demonstration required for existing non-emergency 4SLB stationary RICE with a site rating of more than 500 HP located at an area source of HAP that are not remote stationary RICE and that are operated more than 24 hours per calendar year must be conducted according to the following requirements:

1. The compliance demonstration must consist of at least one test run.
2. Each test run must be of at least 15 minute duration, except that each test conducted using the method in appendix A to this subpart must consist of at least one measurement cycle and include at least 2 minutes of test data phase measurement.
3. Demonstrating compliance with the CO concentration or CO percent reduction requirement, the Permittee must measure CO emissions using one of the CO measurement methods specified in Table 4 of 40 CFR 63 subpart ZZZZ, or using Appendix A to 40 CFR 63 subpart ZZZZ.
4. Demonstrating compliance with the THC percent reduction requirement, the Permittee must measure THC emissions using EPA Method 25A, reported as propane, of 40 CFR Part 60, Appendix A.
5. The Permittee must measure O₂ using one of the O₂ measurement methods specified in Table 4 of 40 CFR 63 subpart ZZZZ. Measurements to determine O₂ concentration must be made at the same time as the measurements for CO or THC concentration.
6. Demonstrating compliance with the CO or THC percent reduction requirement, the Permittee must measure CO or THC emissions and O₂ emissions simultaneously at the inlet and outlet of the control device.
7. If the results of the annual compliance demonstration show that the emissions exceed the levels specified in Table 6 of 40 CFR 63, Subpart ZZZZ, the stationary RICE must be shut down as soon as safely possible, and appropriate corrective action must be taken (e.g., repairs, catalyst cleaning, catalyst replacement). The stationary RICE must be retested within 7 days of being restarted and the emissions must meet the levels specified in Table 6 of 40 CFR 63, Subpart ZZZZ. If the retest shows that the emissions continue to exceed the specified levels, the stationary RICE must again be shut down as soon as safely possible, and the stationary RICE may not operate, except for purposes of startup and testing, until the owner/operator demonstrates through testing that the emissions do not exceed the levels specified in Table 6 of 40 CFR 63, Subpart ZZZZ.

VI. NOTIFICATIONS, REPORTS AND RECORDS

[40 CFR 63.6645]

- A. The Permittee must submit a Notification of Intent to conduct a performance test at least 60 days before the performance test is scheduled to begin. [40 CFR 63.6645(g)]
- B. The Permittee must submit a Notification of Compliance Status according to the following: [40 CFR 63.6645(h)]
1. For each initial compliance demonstration required in IV.A.1.g to this Section that does not include a performance test, the Permittee must submit the Notification of Compliance Status before the close of business on the 30th day following the completion of the initial compliance demonstration. [40 CFR 63.6645(h)(1)]
 2. For each initial compliance demonstration required in IV.A.1.g of this Section that includes a performance test conducted according to the requirements in IV.B of this Section, you must submit the Notification of Compliance Status, including the performance test results, before the close of business on the 60th day following the completion of the performance test. [40 CFR 63.6645(h)(2)]

VII. SUBMISSION OF REPORTS**A. Requirements for Reports**

Unless the Control Officer has approved a different schedule for submission of reports under 40 CFR 63.10(a), the Permittee must submit each report semiannually and according to the requirements in VII.A.1 through A.5 of this Section. [40 CFR 63.6650(a) & (b)]

1. If there are no deviations from any emission limitations or operating limitations, a statement that there were no deviations from the emission limitations or operating limitations during the reporting period. [40 CFR Subpart ZZZZ : Table 7, 1.a.i]
 2. The first semiannual Compliance report must cover the period beginning on the compliance date that is specified for your affected source in II of this Section (May 3, 2013) and ending on December 31 (the end of the first calendar half after the compliance date). [40 CFR 63.6650(b)(1)]
 3. The first semiannual Compliance report must be postmarked or delivered no later than January 31 (the date that follows the end of the first calendar half after May 3, 2013 (the compliance date that is specified in II of this Section). [40 CFR 63.6650(b)(2)]
 4. Each subsequent semiannual Compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31. [40 CFR 63.6650(b)(3)]
 5. Each subsequent Compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period. [40 CFR 63.6650(b)(4)]
- B. The Compliance report must contain the following information: [40 CFR 63.6650(c)]
1. Company name and address. [40 CFR 63.6650(c)(1)]
 2. Statement by a Responsible Official, with that official's name, title, and signature, certifying the accuracy of the content of the report. [40 CFR 63.6650(c)(2)]
 3. Date of report and beginning and ending dates of the reporting period. [40 CFR 63.6650(c)(3)]

4. If you had a malfunction during the reporting period, the compliance report must include the number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of actions taken by an owner or operator during a malfunction of an affected source to minimize emissions in accordance with III.G.2 of this Section, including actions taken to correct a malfunction. [40 CFR 63.6650(c)(4) & 40 CFR 63.6605(b)]
5. If there are no deviations from any emission or operating limitations that apply to you, a statement that there were no deviations from the emission or operating limitations during the reporting period. [40 CFR 63.6650(c)(5)]
6. If there were no periods during which the continuous monitoring system (CMS), including CEMS and CPMS, was out-of-control, as specified in V.B.6.a and b of this Section, a statement that there were no periods during which the CMS was out-of-control during the reporting period. [40 CFR 63.6650(c)(6) & 40 CFR 63.8(c)(7)]
 - a. A CMS is out of control if:
 - i. The zero (low-level), mid-level (if applicable), or high-level calibration drift (CD) exceeds two times the applicable CD specification in the applicable performance specification or in the relevant standard; or [40 CFR 63.8(c)(7)(i)(A)]
 - ii. The CMS fails a performance test audit (e.g., cylinder gas audit), relative accuracy audit, relative accuracy test audit, or linearity test audit; or [40 CFR 63.8(c)(7)(i)(B)]
 - iii. The COMS CD exceeds two times the limit in the applicable performance specification in the relevant standard. [40 CFR 63.8(c)(7)(i)(C)]
 - b. When the CMS is out of control, the Permittee shall take the necessary corrective action and shall repeat all necessary tests which indicate that the system is out of control. The Permittee shall take corrective action and conduct retesting until the performance requirements are below the applicable limits. The beginning of the out-of-control period is the hour the Permittee conducts a performance check (e.g., calibration drift) that indicates an exceedance of the performance requirements established under this part. The end of the out-of-control period is the hour following the completion of corrective action and successful demonstration that the system is within the allowable limits. During the period the CMS is out of control, recorded data shall not be used in data averages and calculations, or to meet any data availability requirement established under this part. [40 CFR 63.8(c)(7)(ii)]

C. Compliance Report Requirements for each Deviation of Emission or Operating Limitation not using a CMS.

For each deviation from an emission or operating limitation that occurs for a stationary RICE where the Permittee is not using a CMS to comply with the emission or operating limitations in this Section, the Compliance report must contain the information in V.B.1 through 4 of this Section and the information in V.C.1 and 2 of this Section. [40 CFR 63.6650(d)]

1. The total operating time of the stationary RICE at which the deviation occurred during the reporting period. [40 CFR 63.6650(d)(1)]
2. Information on the number, duration, and cause of deviations (including unknown cause, if applicable), as applicable, and the corrective action taken. [40 CFR 63.6650(d)(2)]

D. Compliance Report Requirements for each Deviation of Emission or Operating Limitation Using a CMS.

For each deviation from an emission or operating limitation occurring for a stationary RICE where you are using a CMS to comply with the emission and operating limitations in this subpart, the Permittee must include information in V.B.1 through 4 and V.D.1 through 12 of this Section. [40 CFR 63.6650(e)]

1. The date and time that each malfunction started and stopped. [40 CFR 63.6650(e)(1)]
2. The date, time, and duration that each CMS was inoperative, except for zero (low-level) and high-level checks. [40 CFR 63.6650(e)(2)]
3. The date, time, and duration that each CMS was out-of-control, including the following information [40 CFR 63.6650(e)(3) & 40 CFR 63.8(c)(8)]
4. The date and time that each deviation started and stopped, and whether each deviation occurred during a period of malfunction or during another period. [40 CFR 63.6650(e)(4)]
5. A summary of the total duration of the deviation during the reporting period, and the total duration as a percent of the total source operating time during that reporting period. [40 CFR 63.6650(e)(5)]
6. A breakdown of the total duration of the deviations during the reporting period into those that are due to control equipment problems, process problems, other known causes, and other unknown causes. [40 CFR 63.6650(e)(6)]
7. A summary of the total duration of CMS downtime during the reporting period, and the total duration of CMS downtime as a percent of the total operating time of the stationary RICE at which the CMS downtime occurred during that reporting period. [40 CFR 63.6650(e)(7)]
8. An identification of each parameter and pollutant (CO or formaldehyde) that was monitored at the stationary RICE. [40 CFR 63.6650(e)(8)]
9. A brief description of the stationary RICE. [40 CFR 63.6650(e)(9)]
10. A brief description of the CMS. [40 CFR 63.6650(e)(10)]
11. The date of the latest CMS certification or audit. [40 CFR 63.6650(e)(11)]
12. A description of any changes in CMS, processes, or controls since the last reporting period. [40 CFR 63.6650(e)(12)]

E. Reporting of Deviations in the Semiannual Monitoring Report

The Permittee must report all deviations as defined in this Section in the semiannual monitoring report required by V.A. of this Section. [40 CFR 63.6650(f)]

VIII. RECORDKEEPING REQUIREMENTS

- A. The Permittee must keep the records described in VIII.A.1 through A.5, VIII.B.1 through B.3 and VIII.C of this Section. [40 CFR 63.6655]
1. A copy of each notification and report that the Permittee submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status that were submitted. The Permittee shall also maintain files of all information (including all reports and notifications) required by this Section recorded in a form suitable and readily available for expeditious inspection and review. The files shall be retained for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent 2 years of data shall be retained on site. The remaining 3 years of data may be retained off site. Such files may be maintained on microfilm, on a computer, on computer floppy disks, on magnetic tape disks, or on microfiche. [40 CFR 63.6655(a), 40 CFR 63.10(b)(2)(xiv), 40 CFR 63.9 & 40 CFR 63.10(b)]
 2. Records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. [40 CFR 63.6655(a)(2)]
 3. Records of all performance tests, performance evaluations and opacity and visible emission observations. [40 CFR 63.6655(a)(3) & 40 CFR 63.10(b)(2)(viii)]
 4. Records of all required maintenance performed on the air pollution control and monitoring equipment. [40 CFR 63.6655(a)(4)]
 5. Records of actions taken during periods of malfunction to minimize emissions in accordance with III.G.2, including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [40 CFR 63.6655(a)(5) & 40 CFR 63.6605(b)]
- B. For each CEMS or CPMS, the Permittee must keep the records listed in VIII.B.1 through 3 of this Section: [40 CFR 63.6655(b)]
1. Records described in VIII.B.1.a through 1.g of this Section. [40 CFR 63.6655(b)(1) & 40 CFR 63.10(b)(2)(vi) through (xi)]
 - a. Each period during which a CMS is malfunctioning or inoperative (including out-of-control periods); [40 CFR 63.10(b)(2)(vi)]
 - b. All required measurements needed to demonstrate compliance with a relevant standard (including, but not limited to, 15-minute averages of CMS data, raw performance testing measurements, and raw performance evaluation measurements, that support data that the source is required to report); [40 CFR 63.10(b)(2)(vii)]
 - c. The Control Officer may require the Permittee to maintain all measurements as required by VIII.B 1.b of this section, if the Control Officer determines these records are required to more accurately assess the compliance status of the affected source. [40 CFR 63.10(b)(2)(vi)(C)]
 - d. All results of performance tests, CMS performance evaluations, and opacity and visible emission observations;
 - e. All measurements as may be necessary to determine the conditions of performance tests and performance evaluations;
 - f. All CMS calibration checks;

- g. All adjustments and maintenance performed on CMS;
2. Previous (i.e., superseded) versions of the performance evaluation plan as required below:
[40 CFR 63.6655(b)(2) & 40 CFR 63.8(d)(3)]
- a. The Permittee shall keep these written procedures on record for the life of the affected source or until the affected source is no longer subject to the provisions of this part, to be made available for inspection, upon request, by the Control Officer.
 - b. If the performance evaluation plan is revised, the Permittee shall keep previous (i.e., superseded) versions of the performance evaluation plan on record to be made available for inspection, upon request, by the Control Officer, for a period of 5 years after each revision to the plan.
 - c. Where relevant, e.g., program of corrective action for a malfunctioning CMS, these written procedures may be incorporated as part of the affected source's startup, shutdown, and malfunction plan to avoid duplication of planning and recordkeeping efforts.
3. Requests for alternatives to the relative accuracy test for CEMS or CPMS as required below, if applicable.
[40 CFR 63.6655(b)(3) & 40 CFR 63.8(f)(6)(i)]
- a. Criteria for approval of alternative procedures. An alternative to the test method for determining relative accuracy is available for affected sources with emission rates demonstrated to be less than 50 percent of the relevant standard. The Permittee of an affected source may petition the Control Officer under VI.B.3.b of this Section to substitute the relative accuracy test in Section 7 of Performance Specification 2 with the procedures in Section 10 if the results of a performance test conducted according to the requirements in 40 CFR 63.7, or other tests performed following the criteria in 40 CFR 63.7, demonstrate that the emission rate of the pollutant of interest in the units of the relevant standard is less than 50 percent of the relevant standard. For affected sources subject to emission limitations expressed as control efficiency levels, the Permittee may petition the Control Officer to substitute the relative accuracy test with the procedures in Section 10 of Performance Specification 2 if the control device exhaust emission rate is less than 50 percent of the level needed to meet the control efficiency requirement. The alternative procedures do not apply if the CEMS is used continuously to determine compliance with the relevant standard.
[40 CFR 63.8(f)(6)(i)]
 - b. Petition to use alternative to relative accuracy test. The petition to use an alternative to the relative accuracy test shall include a detailed description of the procedures to be applied, the location and the procedure for conducting the alternative, the concentration or response levels of the alternative relative accuracy materials, and the other equipment checks included in the alternative procedure(s). The Control Officer will review the petition for completeness and applicability. The Control Officer's determination to approve an alternative will depend on the intended use of the CEMS data and may require specifications more stringent than in Performance Specification.
[40 CFR 63.8(f)(6)(ii)]
- C. The Permittee must keep the records required in V.A.1 of this Section to show continuous compliance with each emission or operating limitation that applies.
[40 CFR 63.6655(d)]
- D. The Permittee must keep records of the maintenance conducted on the stationary RICE (as identified in Table 3, Attachment 2 of this permit), in order to demonstrate that the Permittee operated and maintained the stationary 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)]

- E. If the existing emergency stationary RICE does not meet the standards applicable to non-emergency engines (see III of this Section) then the Permittee shall keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The Permittee shall document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engines are used for demand response operation, the Permittee shall keep records of the notification of the emergency situation, and the time the engine was operated as part of demand response.

[40 CFR 63.6655(f) & 40 CFR 63.6655(f)(2)]

IX. STRUCTURE AND RETENTION OF RECORDS

- A. The Permittee must keep the records of all information (including all reports and notifications) in a form suitable and readily available for expeditious review according to the following:

[40 CFR 63.6660(a) & 40 CFR 63.10(b)(1)]

1. The files shall be retained for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.
2. At a minimum, the most recent 2 years of data shall be retained on site.
3. The remaining 3 years of data may be retained off site. Such files may be maintained on microfilm, on a computer, on computer floppy disks, on magnetic tape disks, or on microfiche.

- B. As specified in VI.A.1 of this Section, 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) & 40 CFR 63.10(b)(1)]

- C. 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 VI.A of this Section.

[40 CFR 63.6660 & 40 CFR 63.10(b)(1)]

SECTION B

**New and Existing Stationary Source Performance Standards for
Fossil-Fuel Fired Industrial and Commercial Equipment**
(Locally Enforceable Conditions, unless otherwise stated)

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

I. Emission Limitations and Standards

[PCC 17.12.185.A.2]

A. 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]

B. Fuel Limitation

The Permittee shall burn natural gas fuel for the boilers in Table 2 of Attachment 2 of this Permit.

[PCC 17.12.190.B]

[Material Permit Condition]

II. Monitoring Requirements

[PCC 17.12.185.A.3]

A. Opacity

A demonstration to show compliance with the emission limitation for opacity in I.A of this Section 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.

B. Fuel

The Permittee shall be considered in compliance with the fuel limitation in I.B of this Section 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

[PCC 17.12.185.A.4]

The Permittee shall maintain records of any emissions in excess of the limits established by this permit. All records shall be maintained for five years.

IV. Reporting Requirements

[PCC 17.12.185.A.5]

The Permittee shall report to the Control Officer any emissions in excess of the limits established by this permit accordance with I.B of the additional permit conditions of this permit. [PCC 17.12.040]

V. 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.

A. Opacity

When requested, 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 Section.

[PCC 17.12.040.B & PCC 17.20.010]

B. Fuel Limitation

When requested, the Permittee need only demonstrate that pipeline quality natural gas was fired exclusively in the boilers.

[PCC 17.12.185.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]

VI. Facility Changes

Should the Permittee desire to change the facility or operations in any way (including, but not limited to, addition of new equipment, modification of current equipment or usage of fuels not specified within this Permit,) the Permittee will first submit the proper notification and follow the required permit revision procedure pursuant PCC 17.12.240, PCC 17.12.255, and PCC 17.12.260

SECTION C

General Facility-Wide Specific Standards

The provisions of this Section 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 Section 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]

The Permittee shall report to the Control Officer any emissions in excess of the limits established by this permit according to the additional permit conditions of this permit [PCC 17.12.040]

IV. Testing Requirements

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

ADDITIONAL PERMIT REQUIREMENTS

I. COMPLIANCE WITH PERMIT CONDITIONS

[PCC 17.12.185.A.7.a & b]

- A. The Permittee shall comply with all conditions of this permit including all applicable requirements of Arizona air quality statutes and the air quality rules. Any permit noncompliance constitutes a violation of the Arizona Revised Statutes and is grounds for enforcement action; for permit termination, revocation and reissuance, or revision; or for denial of a permit renewal application. In addition, noncompliance with any federally enforceable requirement constitutes a violation of the Clean Air Act.
- B. 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 17.12.185.A.5 & 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 emission that includes all available information pursuant to PCC 17.12.040.B. To report excess emissions call **520-724-7400** or fax to **520-838-7432**.
 - 2. Detailed written notification by submission of an excess emissions report within 72 hours of the notification in I.B.1 above. Send to **PDEQ 33 N. Stone Ave, Ste 700, Tucson, Arizona 85701**.
- C. 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.
- D. The permit does not convey any property rights of any sort, or any exclusive privilege to the permit holder.
- E. The Permittee shall pay fees to the Control Officer pursuant to PCC 17.12.510. [PCC 17.12.185.A.9 & PCC 17.12.510]

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

[PCC 17.12.185.A.7.c]

The permit may be revised, reopened, revoked and reissued, or terminated for cause pursuant to PCC 17.12.270. 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.

III. DUTY TO PROVIDE INFORMATION

[PCC 17.12.165.G & PCC 17.12.185.A.7.e]

- A. The Permittee shall furnish to the Control Officer, within a reasonable time, any information that the Control Officer may request in writing to determine whether cause exists for revising, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the Permittee shall also furnish to the Control Officer copies of records required to be kept by the permit. For information claimed to be confidential, the Permittee shall furnish a copy of such records to the Control Officer 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.

IV. SEVERABILITY CLAUSE

[PCC 17.12.185.A.6]

The provisions of this permit are severable. If any provision of this permit is held invalid, the remainder of this permit shall not be affected thereby.

ATTACHMENT 1

Requirements Specifically Identified as Applicable:

Code of Federal Regulations Title 40:

40 CFR Part 63 Subpart ZZZZ: National Emissions Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines (RICE)

Applicable to the natural gas fired emergency generator. NRG Energy Center LLC (Community Center) is an affected facility under 40 CFR Part 63 Subpart ZZZZ.

EPA Regulation navigation tool (RICE):

Existing Stationary Engine >500 HP Located at Area Sources of HAP, Non-Emergency Spark Ignition 4-Stroke Lean Burn non Remote Engines

Pima County Code (PCC) Title 17:

This is not meant to be an exhaustive list of every regulation to which the Permittee is subject, but represents those cited in the permit. It is the responsibility of the Permittee to comply with all applicable regulations.

Pima County Code (PCC) Title 17, Chapter 17.12 Permits and Permit Revisions

17.12.010	Statutory authority
17.12.020	Planning, constructing, or operating without a permit
17.12.040	Reporting requirements
17.12.045	Test methods and procedures
17.12.050	Performance tests
17.12.080	Permit display or posting
17.12.165	Permit application processing procedures for Class II and Class III permits
17.12.185	Permit contents for Class II and Class III permits
17.12.520	Fees related to Class II and Class III permits

Pima County Code (PCC) Title 17, Chapter 17.16 Emission Limiting Standards

17.16.010	Local rules and standards - Applicability of more than one standard
17.16.020	Noncompliance with applicable standards
17.16.030	Odor limiting standards
17.16.040	Standards and applicability (Includes NESHAP)
17.16.050	Visibility limiting standard
17.16.165	Standards of performance for fossil-fuel fired industrial and commercial equipment
17.16.340	Standards of Performance for Stationary Rotating Machinery.
17.20.010	Emission Source Testing and Monitoring.

ATTACHMENT 2
EQUIPMENT LIST

TABLE 1

Stationary Rotating Machinery (Section A - Generators subject to NESHAP Subpart ZZZZ)

Type of Equipment	Manufacture	Model	Serial Number/ ID number	Maximum Rated Capacity	Model year/ Applicability Date ¹	Allowable Fuel(s)
Non-Emergency Generator	Jenbacher	A6200	3585941	2258 HP	2002	Natural Gas

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

TABLE 2

Fossil-Fuel Fired Industrial and Commercial Equipment (Section B - Boilers, not subject to NSPS)

Type of Equipment	Equipment ID/Serial Number	Manufacturer	Model	Maximum Rated Capacity	Primary Fuel	Date of Manufacture	Date of Installation
Boiler	GY27-11-35578	Patterson Kelly	N3000-MFD	3 MMBtu/Hr (Each)	Natural Gas	7/2011	11/2012
Boiler	GY27-11-35579						
Boiler	GY27-11-35580						
Boiler	GY27-11-35581						
Boiler	GY27-11-35585						