UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105-3901

July 31, 2008

Dirk Straussfeld
Desert Rock Energy Company, LLC
Three Riverway, Suite 1100
Houston, TX 77056

Dear Mr. Straussfeld:

In accordance with the provisions of the Clean Air Act, as amended (42 U.S.C. 7401 et seq.), the Environmental Protection Agency has reviewed the application for the proposed Desert Rock Energy Facility, located on Navajo Nation tribal land approximately 25 miles southwest of Farmington, NM.

A request for public comment regarding EPA's proposed action on the above application was published on July 27, 2006. During the public comment period, EPA received a substantial number of comments. Enclosed is a copy of our responses to those comments. The attachments cited in the responses to comments are available electronically on our website and are not included in hard copy with this letter because they are voluminous. After consideration of the expressed view of all interested persons, the pertinent federal statues and regulations, and additional material relevant to the application and contained in our Administrative Record, EPA hereby issues the enclosed Prevention of Significant Deterioration (PSD) Permit for the facility described above. The Administrative Record for this permit is available online at http://www.epa.gov/region09/air/permit/desertrock/index.html.

Within 30 days after the service of notice of the permit decision (which is the date of this letter), any person who filed comments on the proposed permit or participated in the public hearings may petition the Environmental Appeals Board (EAB) to review any condition of the final permit. The petition must include a statement of the reasons for requesting review by the EAB including a demonstration that any issues being raised were raised during the public comment period and, when appropriate, a showing that the conditions in question are based on 1) a finding of fact or conclusion of law which is erroneous, or 2) an exercise of discretion or an important policy consideration which the EAB should, in its discretion, review. All petitions must be sent to the EAB at one of the following addresses, based on the method of delivery. Please see 40 CFR 124.19 and visit http://www.epa.gov/eab/ for more information regarding the procedure for appeal to the EAB.

Method of Delivery	
All documents that are sent through the U.S. Postal Service (except by Express Mail)	Documents that are hand-carried in person, delivered via courier, mailed by Express Mail, or delivered by a non-U.S. Postal Service carrier (e.g., Federal Express or UPS)
Address for Petitions	
U.S. Environmental Protection Agency Clerk of the Board, Environmental Appeals Board (MC 1103B) Ariel Rios Building 1200 Pennsylvania Avenue, N.W. Washington, D.C. 20460-0001	U.S. Environmental Protection Agency Clerk of the Board, Environmental Appeals Board Colorado Building 1341 G Street, N.W., Suite 600 Washington, D.C. 20005

This PSD permit shall take effect thirty (30) days from the date of service of notice unless a petition for appeal is properly and timely filed with the EAB. In the event a petition for review is filed, construction of the facility can not begin until resolution of the EAB petitions.

If you have any questions regarding this matter, please contact Gerardo C. Rios of our Permits Office at (415) 972-3974.

Sincerely,

Deborah Jordan
Director, Air Division

Enclosures (4)

PREVENTION OF SIGNIFICANT DETERIORATION PERMIT

ISSUED PURSUANT TO THE
REQUIREMENTS AT 40 CFR § 52.21

U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION 9

PSD PERMIT NUMBER: AZP 04-01

PERMITTEE: Desert Rock Energy Company, LLC
(a subsidiary of Sithe Global Power, LLC)
Three Riverway, Suite 1100
Houston, TX 77056

FACILITY LOCATION: Approximately 25 miles southwest of Farmington, New Mexico in the Navajo Indian Reservation.

This permit is issued pursuant to the Prevention of Significant Deterioration (PSD) requirements of the Clean Air Act, as amended, 42 U.S.C. §§ 7401 - 7671, et seq. The Desert Rock Energy Company, LLC is granted this PSD permit as described herein, in accordance with the permit application, federal regulations governing the Prevention of Significant Deterioration of Air Quality (40 CFR § 52.21), and other terms and conditions set forth in the permit.

Failure to comply with any condition or term set forth in this PSD permit is subject to enforcement action pursuant to Section 113 of the Clean Air Act.

This PSD permit does not relieve the Permittee from the responsibility to comply with any other applicable provisions of the Clean Air Act and other federal requirements.

This permit shall become effective 30 days after the service of notice of the final permit decision unless review of the permit is requested under 40 CFR 124.19. Notice of the final permit decision is served on the date below.

July 31, 2008
Date

Deborah Jordan
Director, Air Division

DESERT ROCK ENERGY FACILITY (AZP 04-01)
PERMIT CONDITIONS

I. Permit Expiration

This permit shall become invalid if: 1) construction is not commenced (as defined in 40 CFR 52.21(b)(9)) within 18 months after the approval takes effect, or 2) construction is discontinued for a period of 18 months or more, or 3) construction is not completed within a reasonable time.

II. Commencement of Construction and Startup

A. Construction under this permit may not commence until EPA notifies the Permittee that it has satisfied any consultation obligations under Section 7(a)(2) of the Endangered Species Act with respect to the issuance of the permit. EPA shall have the power to reopen and amend the permit, or request that the Permittee amend its permit application, to address any alternatives, conservation measures, reasonable and prudent measures, or terms and conditions deemed by EPA to be appropriate as a result of the ESA consultation process.

B. The Permittee must notify EPA in writing of: 1) the anticipated date of initial startup of the Desert Rock Energy Facility not more than sixty (60) days nor less than thirty (30) days prior to such date, and 2) the actual date of commencement of construction and initial startup within fifteen (15) days after each has occurred. For all purposes of this permit, 'construction' includes, but is not limited to, activities such as refractory curing, steam generator boilout, and steam blowing; and 'initial startup' shall mean the setting in operation of an affected facility for the first time after construction for any purpose. 'Affected facility' is further defined as any apparatus, equipment, or emission unit subject to a standard in this permit or in the applicable Performance for New Stationary Sources regulations found at 40 CFR 60 Subparts A and Da.

III. Facility Operation

All equipment, facilities, and systems installed or used to achieve compliance with the terms and conditions of this permit must at all times be maintained in good working order and be operated as intended so as to minimize air pollutant emissions.

IV. Malfunction Reporting

The Permittee must notify EPA by telephone, facsimile, or electronic mail transmission within two working days following the discovery of 1) failure of any continuous emissions monitoring system to operate in a normal manner, and 2) any failure of air pollution control equipment, process equipment, or of a process to operate in a normal manner, which results in an increase in emissions above any allowable emission limit

stated in Section IX this permit. In addition, the Permittee must notify EPA in writing within fifteen (15) days of any such failure. The notification shall include a description of the malfunctioning equipment or abnormal operation, the date of the initial malfunction, the period of time over which emissions were increased due to the failure, the cause of the failure, the estimated resultant emissions in excess of those allowed in Section IX, and the methods utilized to mitigate emissions and restore normal operations. Compliance with this malfunction notification provision shall not excuse or otherwise constitute a defense to any violation of this permit or of any law or regulation that such malfunction may cause.

V. Right of Entry

The EPA Regional Administrator, and/or his authorized representative, upon the presentation of credentials, must be permitted:

A. to enter the premises where the source is located or where any records are required to be kept under the terms and conditions of this permit;

B. at reasonable times to have access to and copy any records required to be kept under the terms and conditions of this permit;

C. to inspect any equipment, operation, or method required in this permit; and

D. to sample emissions from the source(s).

VI. Transfer of Ownership

In the event of any changes in control or ownership of the facilities to be constructed, the permit must be binding on all subsequent owners and operators. The Permittee must notify the succeeding owner and operator of the existence of this permit and its conditions by letter, a copy of which must be forwarded to the EPA.

VII. Severability

The provisions of this permit are severable, and, if any provision of the permit is held invalid, the remainder of this permit shall be unaffected.

VIII. Other Applicable Regulations

The Permittee must construct and operate the proposed power plant in compliance with all other applicable provisions of 40 CFR Parts 51, 52, 60, 63, 72 through 75, and all other applicable federal, state, and local air quality regulations.

IX. Special Conditions

A. Certification

The Permittee must notify the EPA in writing of compliance with Conditions IX.B.2 and IX.Q below, and must make such notification within fifteen (15) days of such compliance. The letter must be signed by a responsible official of the Permittee.

B. Emission Units and Air Pollution Control Measures and Equipment

1. The following emission units are subject to one or more conditions or requirements in this permit:

Quantity	Description
2	Pulverized coal-fired supercritical boiler; 6,810 MMBtu/hr maximum heat input ("PC boiler"); with steam turbine generator and associated systems
3	Fuel-oil fired auxiliary boiler; 86.4 MMBtu/hr
2	Emergency generator; diesel-fuelled; 1,000 kW
2	Emergency fire pump; diesel-fuelled; 284 hp
1	1.1 million gallon storage tank, storing ultra-low sulfur diesel fuel for use in the emergency generators and emergency fire pumps
Multiple	Coal, limestone, lime, and ash handling equipment consisting of various conveyors, transfer houses, bunkers, silos, and a passive coal storage pile

2. On or before the date of initial startup of the power plant (as defined in Condition II of this permit), and thereafter, the Permittee shall install, continuously operate, and maintain the following controls:

   a. Low NOx burners and a selective catalytic reduction (SCR) system for the control of NOx emissions from the PC boilers. During startup and shutdown events, the SCR system shall be operated in accordance with good engineering practice and the manufacturer's recommendations for minimizing NOx and ammonia emissions to the extent practicable.

   b. Hydrated lime injection and wet limestone desulfurization for the control of SO_2, H_2SO_4, and HF emissions from the PC boilers.

   c. A baghouse for the control of PM and PM_{10} emissions from the PC boilers.

d. Enclosures, and fabric filters for the control of PM and PM_{10} emissions from the coal, limestone, and lime handling systems.

e. Measures for the inactive coal storage pile including the use of a soil covering or other crusting agents when it is not in use, and wetting or other chemical agents when coal is added to the pile or removed from it. The Permittee shall apply these methods sufficiently to prevent fugitive dust emissions.

3. Prior to commencement of construction the Permittee shall pave or have caused the paving of all public and private roads used to access the facility at least within a 1.5 mile radius of the facility. The 1.5 mile radius shall be calculated from all points along the fence line of the property on which the facility is located.

C. Performance Tests

1. Within 60 days after achieving the base load, but no later than 180 days after initial startup, the Permittee must conduct performance tests (as described in 40 CFR 60.8) for SO_2, NOx, CO, VOC, PM, PM_{10}, H_2SO_4, HF and Pb on the exhaust stack gases from the PC boilers and for NOx, CO, VOC, PM, and PM_{10} on the exhaust stack gases from the auxiliary boilers. The Permittee shall repeat the aforementioned tests on an annual basis (within 30 days of the initial performance test) for emissions of VOC, PM_{10}, H_2SO_4, HF, and Pb from the PC boilers. The Permittee must furnish the EPA with a written report of the results of all tests within 30 days of completion of each test. After the initial performance tests, upon written request from the Permittee, and adequate justification, EPA may waive a specific annual test and/or allow for testing to be done at less than maximum operating capacity. For emissions of SO_2, NOx, CO, and PM from the PC boilers, the Permittee must install and operate continuous emissions monitoring systems as specified in Section IX.Q.

2. The performance tests required by Section IX.C.1 must be performed in accordance with the test methods set forth in 40 CFR 60.8 and 40 CFR 60, Appendix A, unless otherwise noted or as modified below. The following test methods must be used:

   a. Performance tests for the emissions of SO_2 shall be conducted using EPA Methods 1 through 4 and 6C. These methods shall also be used to conduct the Relative Accuracy Test Audits of the SO_2 CEMS.

   b. Performance tests for the emissions of NOx shall be conducted using EPA Methods 1 through 4 and 7E. These methods shall also be used to conduct the Relative Accuracy Test Audits of the NOx CEMS.

c. Performance tests for the emissions of CO shall be conducted using EPA Methods 1 through 4 and 10. These methods shall also be used to conduct the Relative Accuracy Test Audits of the CO CEMS.

d. Performance tests for the emissions of VOC shall be conducted using EPA Methods 1 through 4 and 25A.

e. Performance tests for the emissions of PM shall be conducted using EPA Methods 1 through 4 and Method 5I. These methods shall also be used to conduct the Relative Accuracy Test Audits of the PM CEMS.

f. Performance tests for the emissions of PM_{10} shall be conducted using EPA Method 5I and Method 202 (40 CFR Part 51, Appendix M). When employing Method 202, the following procedures shall be used:

   i. a one hour nitrogen purge is required,

   ii. the alternative procedure described in Method 202, paragraph 8.1 to neutralize the sulfuric acid is required, and

   iii. the evaporation of the last 1 ml of the inorganic fraction by air drying following evaporation of the bulk of the impinger water in a 105 degrees C oven as described in the first sentence of Method 202, section 5.3.2.3 is required.

g. Performance tests for the emissions of H_2SO_4 shall be conducted using EPA Methods 1 through 4 and CTM-13B (http://www.epa.gov/ttn/emc/ctm/ctm013B.pdf).

h. Performance tests for the emissions of hydrogen fluoride shall be conducted using EPA Methods 1 through 4 and 26.

i. Performance tests for the emissions of lead shall be conducted using EPA Methods 1 through 4 and 12.

j. Performance tests for the determination of the opacity of emissions shall be conducted using EPA Method 9.

3. In lieu of the above-mentioned test methods, the Permittee may use equivalent methods with prior written approval from EPA.

   The Permittee must notify EPA in writing at least 30 days prior to all tests to allow time for the development of an approvable performance test plan and to arrange for an observer to be present at the tests. The performance test plans

shall address the conditions specified in IX.C.2, above.

4. For performance test purposes, sampling ports, platforms, and access must be provided by the Permittee on the emission unit exhaust system in accordance with 40 CFR 60.8(e).

D. Emission Limits and Conditions for SO_2

1. On or after the date of initial startup, the Permittee shall not discharge or cause the discharge of SO_2 into the atmosphere from each PC boiler in excess of the following amounts:

   a. 612 lb/hr, averaged over a 3-hour block period.

   b. 0.060 lb/MMBtu, averaged over a 24-hour block period.

   c. 378.5 lb/hr, averaged over a rolling 365-day period.

2. The Permittee shall demonstrate initial compliance with the limits of Condition IX.D.1.a and IX.D.1.b by conducting an initial performance test in accordance with Condition IX.C. Continuous compliance with all limits of Condition IX.D.1 shall be demonstrated by continuously monitoring emissions using continuous emission monitors installed and operated pursuant to Condition IX.Q.

3. The Permittee shall comply with the terms and conditions under the "Sulfur Dioxide Mitigation" section in Exhibit A of the *Memorandum of Understanding between the Navajo Nation Environmental Protection Agency and Desert Rock Energy Company, LLC, to develop an enforceable Voluntary Emission Reduction Plan*.

E. Emission Limits and Conditions for NO_x (calculated as NO_2)

1. The 60-month period beginning with initial startup shall be considered the "NOx Optimization Period."

2. Prior to commencement of construction, the Permittee shall submit the following information to EPA:

   a. Design specifications from the boiler and SCR system vendors, which indicate that the boilers and SCR systems were designed to achieve a NOx emission rate of 0.035 lb/MMBtu on a rolling 365-day average. The specifications shall identify the parameters and conditions used for catalyst design such as:
      - Plant performance factors (e.g., fuel type and ash characteristics,

combustion type, boiler performance, air heater design, particulate collection devices, and SCR soot blowers),

- Operating conditions (e.g., plant load factor, flue gas flow rate, inlet NOx levels, temperature, and the impact of O_2 and water content on catalytic potential), and
- System scale-up factors (e.g., non-ideal flow distribution, temperature distribution, ammonia-to-NOx molar ratio distribution, and catalyst blockage).

b. An SCR catalyst management plan which sets forth measures that will be taken to maintain the system and optimize its performance. Such measures shall include, but not be limited to:

- Periodic SCR system evaluations and physical inspections of the catalyst, reactor, and ammonia injection system;
- The collection of performance and operational data such as inlet NOx levels, removal efficiency, ammonia-in-ash levels, number of system starts/stops, operational load range, total hours, fuel data, and ash data; and
- Periodic testing of catalyst samples to assess catalyst activity and measure it against design deactivation rates. Such tests may include a catalyst activity test to determine the catalyst activity under specific plant conditions, a physical properties test to evaluate the physical properties such as catalyst surface area and porosity, and a chemical composition test to evaluate the impact of coal and ash properties on catalyst design and performance.

The maintenance plan shall also specify the records that will be maintained so EPA can determine whether the measures in the plan are being followed and whether the plant's operating parameters and conditions are consistent with the catalyst design conditions.

3. During the NOx Optimization Period, the Permittee shall not discharge or cause the discharge of NOx from each PC boiler into the atmosphere in excess of the following amounts:

a. 408 lb/hr, averaged over a 24-hour block period

b. 0.060 lb/MMBtu, averaged over a 24-hour block period

c. 0.05 lb/MMBtu, averaged over a rolling 365-day period

d. 378.5 lb/hr, averaged over a rolling 365-day period

The Permittee shall demonstrate initial compliance with the limits of Condition IX.E.3.a and IX.e.3.b by conducting an initial performance test in

accordance with Condition IX.C. Continuous compliance with all limits of Condition IX.E.3 shall be demonstrated by continuously monitoring emissions using continuous emission monitors installed and operated pursuant to Condition IX.Q.

4. Following the NOx Optimization Period, the Permittee shall not discharge or cause the discharge of NOx from each PC boiler into the atmosphere in excess of the following amounts except as specified in Condition IX.E.5:

   a. 0.060 lb/MMBtu, averaged over a 24-hour block period

   b. 0.05 lb/MMBtu, averaged over a rolling 30-day period

   c. 340.5 lb/hr, averaged over a rolling 30-day period

   d. 0.0385 lb/MMBtu, averaged over a rolling 365-day period

   e. 262.1 lb/hr, averaged over a rolling 365-day period.

   The Permittee shall demonstrate continuous compliance with the limits of Condition IX.E.4 by continuously monitoring emissions using continuous emission monitors installed and operated pursuant to Condition IX.Q.

5. If, during the NOx Optimization Period, the Permittee determines that any of the NOx limits in Condition IX.E.4 are not feasible, the Permittee shall submit an application to EPA for an adjustment of those limits.

   a. The application shall, at a minimum, contain the following information:

      i. All validated CEMS data collected during the NOx Optimization Period for NOx emissions from each PC boiler. The CEMS data shall be recorded and reported in the units of lb/MMBtu on an hourly average

      ii. All records specified in the catalyst management plan

      iii. A report containing an analysis of:

         1. The extent to which the initial catalyst design conditions (identified in Condition IX.E.2.a) differ from actual operating parameters and conditions during the NOx Optimization Period,

         2. The impact any differences identified pursuant to the paragraph above have on the ability to comply with the NOx emission limits of Condition IX.E.4, and

3. Actions taken to mitigate the impacts identified pursuant to the paragraph above.

b. If, after the applicable review process following such a submission, it is demonstrated through data and information gathered during the NOx Optimization Period that a different NOx limit is necessary, the limits in Condition IX.E.4 shall be adjusted accordingly.

c. If the application specified in this condition is postmarked prior to the end of the NOx Optimization Period, the emission limits in Condition IX.E.3 shall remain in effect until EPA evaluates the application and makes a final decision regarding the adjustment to the limits in Condition IX.E.4.

F. Emission Limits for CO

1. On and after the date of initial startup, the Permittee shall not discharge or cause the discharge of CO from each PC boiler into the atmosphere in excess of the following amounts:

   a. 680 lb/hr, averaged over a 24-hour block period.

   b. 0.10 lb/MMBtu, averaged over a 24-hour block period.

   c. 631 lb/hr, averaged over a rolling 365-day period.

2. The Permittee shall demonstrate initial compliance with the limits of Condition IX.F.1.a and IX.F.1.b by conducting an initial performance test in accordance with Condition IX.C. Continuous compliance with all limits of Condition IX.F.1 shall be demonstrated by continuously monitoring emissions using continuous emission monitors installed and operated pursuant to Condition IX.Q.

G. Emission Limits for VOC

1. On and after the date of initial startup, the Permittee shall not discharge or cause the discharge of VOC from each PC boiler into the atmosphere in excess of the following amounts:

   a. 20.4 lb/hr, averaged over a 3-hour block period.

   b. 0.0030 lb/MMBtu averaged over a 3-hour block period.

2. The Permittee shall demonstrate compliance with the limits of Condition IX.G.1 by conducting initial and annual performance tests in accordance with

Condition IX.C. The performance tests shall consist of three 1-hour test runs.

3. Prior to initial startup of the facility, the Permittee shall submit to EPA a report that analyses the use of potential surrogate parameters (such as measured CO emissions) as an indicator of VOC emissions control. Following initial startup of the facility, the Permittee shall develop, through source testing, relationships between a measured CO emissions indicator level or other selected surrogate parameters and compliance with the VOC emissions limits. Within one year after initial startup, the Permittee shall submit a permit application to EPA to incorporate the established relationship(s) into this permit.

H. Emission Limits for PM

1. On and after the date of initial startup, the Permittee shall not discharge or cause the discharge of PM from each PC boiler into the atmosphere in excess of the following amounts:

   a. 66.4 lb/hr, averaged over a 24-hour block period.

   b. 0.010 lb/MMBtu, averaged over a 24-hour block period.

2. The Permittee shall demonstrate initial compliance with the emission limits of Condition IX.H.1 by conducting an initial performance test in accordance with Condition IX.C. Continuous compliance with the limits of Condition IX.H.1 shall be demonstrated by using the continuous monitors installed and operated pursuant to Condition IX.Q of this permit.

I. Emission Limits and Conditions for Total PM_{10}

1. On and after the date of initial startup, the Permittee shall not discharge or cause the discharge of total PM_{10} from each PC boiler into the atmosphere in excess of the following amounts:

   a. 132.8 lb/hr, averaged over a 3-hour block period.

   b. 0.020 lb/MMBtu, averaged over a 3-hour block period.

2. The Permittee shall demonstrate compliance with the emission limits of Condition IX.I.1 by conducting initial and annual performance tests in accordance with Condition IX.C. The performance tests shall consist of three 1-hour test runs.

3. At the end of an 18-month period immediately following initial startup, the Permittee may submit to EPA the performance testing data collected in this

period for total PM_{10} for each PC boiler. The performance testing data shall be in raw and reduced or summarized form. If EPA determines from the performance testing data that the PC boilers and associated control devices have not achieved PM_{10} emissions lower than the limits prescribed in X.I., EPA may revise these conditions to reflect the equipment and control devices' performance.

J. Emission Limits and Conditions for Opacity

1. On and after the date of initial startup, the Permittee shall not discharge or cause the discharge into the atmosphere from the PC boiler exhaust stack gases which exhibit opacity of 10% or greater averaged over any six minute period. The Permittee shall conduct monthly opacity readings using EPA Method 9 by a person certified to conduct Method 9. Emissions with opacity greater than 10% averaged over any six minute period shall be reported in accordance with Condition IX.R.

2. On or after the date of initial startup, the Permittee shall not discharge or cause the discharge into the atmosphere from any coal, limestone or lime handling system gasses, which exhibit opacity of 10% or greater averaged over any six minute period.

3. For all baghouses and fabric filters that control emissions from the coal, limestone, or lime handling equipment, the Permittee shall take the following minimum measures to ensure their proper operation and maintenance:

    a. On a weekly basis, conduct an inspection for visible emissions. If any visible emissions are observed, the Permittee shall conduct an opacity reading within 24 hours of such observation using EPA Method 9 by a person certified to conduct Method 9. If the emissions observed during the Method 9 test have opacity greater than 10% averaged over any six minute period, the Permittee shall 1) report the exceedance in accordance with Condition IV, and 2) inspect the bags/filters for holes, tears, leaks, wear, and other defects. If any defects are detected, the appropriate measures for remediation shall commence within 8 hours. A description of the corrective action shall be included in the malfunction report submitted in accordance with Condition IV.

    b. On a quarterly basis, inspect the bags/filters for holes, tears, leaks, wear, and other defects. If any defects are detected, the appropriate measures for remediation shall commence within 8 hours. For each model of bag/filter used by the baghouses/fabric filters, one spare bag/filter shall be kept at all times on the premises where the source is located. The Permittee shall maintain a written record of the inspection and any action resulting from the inspection. Bag/fabric filter replacement shall be

documented by identifying the date and time of the replacement and the location of the bag/fabric filter in relationship to the other bags/fabric filters. The location shall be identified on an overhead drawing of the bag/fabric filter layout in the device.

c. On a semi-annual basis, inspect all structural components, housing, ducts, and hoods. If leaks or abnormal conditions are detected the appropriate measures for remediation shall commence within 8 hours. The Permittee shall maintain a written record of the inspection and any action resulting from the inspection.

K. Emission Limits for H_2SO_4

1. On and after the date of initial startup, the Permittee shall not discharge or cause the discharge of H_2SO_4 from each PC boiler into the atmosphere in excess of the following amounts:

   a. 26.6 lb/hr, averaged over a 3-hour block period.

   b. 0.0040 lb/MMBtu, averaged over a 3-hour block period.

2. The Permittee shall demonstrate compliance with the limits of Condition IX.K.1 by conducting initial and annual performance tests in accordance with Condition IX.C. The performance tests shall consist of three 1-hour test runs.

3. Prior to initial startup of the facility, the Permittee shall submit to EPA a report that analyses the use of potential surrogate parameters (such as measured SO_2 emissions) as an indicator of H_2SO_4 control. Following initial startup of the facility, the Permittee shall develop, through source testing, relationships between a measured SO_2 emissions indicator level or other selected surrogate parameters and compliance with the H_2SO_4 emissions limits. Within one year after initial startup, the Permittee shall submit a permit application to EPA to incorporate the established relationship(s) into this permit.

L. Emission Limits for Lead

1. On and after the date of initial startup, the Permittee shall not discharge or cause the discharge of lead from each PC boiler into the atmosphere in excess of the more stringent of 1.33 lb/hr or 0.00020 lb/MMBtu, averaged over a 3-hour block period.

2. The Permittee shall demonstrate compliance with the limits of Condition IX.L.1 by:

a. Conducting initial and annual performance tests in accordance with Condition IX.C. The performance tests shall consist of three 1-hour test runs.

b. Determining the lead and heat content of the coal consumed by the PC boilers by sampling the coal on a weekly basis using ASTM methods 3683 and D3172, respectively. The Permittee shall keep a record of this analysis on site and utilize the results with the most recent performance testing data to determine the lead emissions during the week for which the coal sample was taken.

M. Emission Limits for Fluorides (as Hydrogen Fluoride)

1. On and after the date of initial startup, the Permittee shall not discharge or cause the discharge of hydrogen fluoride from each PC boiler into the atmosphere unless those discharges: 1) are reduced by 98% as measured at the outlet of each PC boiler prior to control, and prior to discharge through the stack after all control measures, or 2) do not exceed the more stringent of 1.6 lb/hr or 0.00024 lb/MMBtu, averaged over a 3-hour block period.

2. The Permittee shall demonstrate compliance with the limits of Condition IX.M.1 by:

   a. Conducting initial and annual performance tests in accordance with Condition IX.C. The performance tests shall consist of three 1-hour test runs.

   b. Determining the fluoride and heat content of the coal consumed by the PC boilers by sampling the coal on a weekly basis using ASTM methods D3761 and D3172, respectively. The Permittee shall keep a record of this analysis on site and utilize the results with the most recent performance testing data to determine the hydrogen fluoride emissions during the week for which the coal sample was taken.

N. Treatment of Emissions During Startup and Shutdown Events

1. For the purposes of this section, a “startup event” shall be defined as the setting in operation of either of the PC boilers for any purpose after initial startup, beginning with ignition of the boiler, and ending when the flow of fuel oil to the auxiliary boilers has ceased or after 6.5 hours, whichever comes first. A startup event may last for longer than 6.5 hours if necessary to avoid equipment damage or unsafe operation in the event of a failed or faulty startup sequence.

2. For the purposes of this section, a “shutdown event” shall be defined as the

cessation of operation of either of the PC boilers for any purpose after initial startup, beginning with the lowering of the boiler from minimum load and curtailment of the fuel supply to the boiler, and ending after fuel flow to the boiler has ceased. A shutdown event shall not last longer than 5 hours.

3. Emissions from the PC boilers during startup and shutdown events shall not be subject to the emission limits in this permit which are specified in units of lb/MMBtu but shall be subject to all other limits and shall be included in the calculations of emission rates for demonstrating compliance with those limits.

4. The Permittee must operate the CEMS during startup and shutdown events.

5. The Permittee must record the time, date and duration of each startup and shutdown event. The records must include calculations of emissions during each event based on the CEMS data. For startup events lasting longer than 6.5 hours due to a failed or faulty startup sequence, the records shall specify the cause of the fault or failure and the measures that will be taken to prevent such faults or failures in the future. These records must be kept for five years following the date of such event.

O. Auxiliary Boilers

1. The Permittee shall restrict fuel use for the operation of the auxiliary boilers to fuel oil with a sulfur content of no more than 0.0015% by weight.

2. The Permittee shall restrict operation of the auxiliary boilers to no more than 142,560 MMBtu/year on a combined basis. A log reporting the date, time, and duration of the boilers' operation shall be maintained. This log must be kept for five years.

3. On and after the date of initial startup, the Permittee shall not discharge or cause the discharge of SO_2 from each of the auxiliary boilers into the atmosphere in excess of 0.14 lb/hr, averaged over 3-hour period, as calculated from the fuel sulfur content and heat input to the boilers.

4. On and after the date of initial startup, the Permittee shall not discharge or cause the discharge of NOx from each of the auxiliary boilers into the atmosphere in excess of 8.64 lb/hr, based on the average of three one-hour source test runs.

5. On and after the date of initial startup, the Permittee shall not discharge or cause the discharge of CO from each of the auxiliary boilers into the atmosphere in excess of 3.09 lb/hr, based on the average of three one-hour source test runs.

6. On and after the date of initial startup, the Permittee shall not discharge or cause the discharge of VOC from each of the auxiliary boilers into the atmosphere in excess of 0.21 lb/hr, based on the average of three one-hour source test runs.

7. On and after the date of initial startup, the Permittee shall not discharge or cause the discharge of PM from each of the auxiliary boilers into the atmosphere in excess of 1.23 lb/hr, based on the average of three one-hour source test runs.

8. On and after the date of initial startup, the Permittee shall not discharge or cause the discharge of PM_{10} from each of the auxiliary boilers into the atmosphere in excess of 2.04 lb/hr, based on the average of three one-hour source test runs.

9. On and after the date of initial startup, the Permittee shall not discharge or cause the discharge of H_2SO_4 from each of the auxiliary boilers into the atmosphere in excess of 0.003 lb/hr, as calculated from the fuel sulfur content and heat input to the boilers.

P. 1000-kW Emergency Backup Generators and 180 kW Fire pumps

1. The Permittee shall restrict fuel use for the emergency backup generators and the fire pump engines to diesel fuel with a maximum sulfur content of 0.0015% by weight.

2. The emergency backup generators shall be certified by the engine manufacturer to comply with the Tier 2 emission standards specified in 40 CFR 94.8.

3. The emergency fire pump engines shall be certified by the engine manufacturer to comply with the following emission standards:

Pollutant	**Standard (g/hp-hr)**
NOx	6.5
VOC	0.3
CO	0.5
PM	0.24

4. The emergency backup generator and fire pump engines shall be used only for maintenance, testing, required regulatory purposes, and during emergency situations and shall not be used to increase the quantity of electricity generated for sale. The Permittee shall restrict the operation of the emergency backup generators and the fire pump engines to no more than 100 hours/year

per generator or pump. This restriction is not applicable during emergency situations. “Emergency situations” are defined as any situation arising from sudden and reasonably unforeseeable events beyond the control of the Permittee, including acts of God, which situation requires immediate corrective action to restore normal operation. Emergency situations shall not include non-compliance with permit terms to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.

5. The Permittee shall install and maintain non-resettable elapsed time meters on each emergency generator and fire pump engine to accurately indicate the elapsed operating time of the generator or engine.

Q. Continuous Emissions Monitoring Systems

1. Prior to the date of initial performance testing or 60 days from initial startup, whichever is sooner, and continuously thereafter (including periods when the PC boilers are starting up or shutting down), the Permittee must install, maintain and operate the following continuous monitoring systems (CEMS) in the PC boiler exhaust system so as to demonstrate compliance with the emission limits set forth in conditions IX.D, IX.E, IX.F, and IX.H:

   a. Continuous monitoring systems to measure stack gas SO_2, NOx, CO, diluent concentrations, and flow. The systems must meet the specifications, test procedures, and quality assurance and control procedures under 40 CFR Part 75, Appendices A and B, except that Performance Specification 4 of 40 CFR Part 60, Appendix B applies to the CO monitoring system where the requirements refer to Performance Specification 2 of 40 CFR Part 60, Appendix B.

   b. A continuous monitoring system to measure stack gas PM concentrations. The monitor shall be operated according to performance specification 11 of 40 CFR 60, Appendix B.

   c. Calculation of the SO_2, NO_2, CO and PM hourly emission rates shall use the pollutant and diluent monitors required in Condition Q.1.a and Q.1.b with stack flow monitoring adjusted for moisture. The stack flow monitoring system shall meet the requirements of 40 CFR 75 Appendix A.

   d. Not less than 90 days prior to the date of initial startup of the Facility, the Permittee shall submit to the EPA a quality assurance project plan for the certification and operation of the continuous emission monitors. Such a plan shall conform to EPA requirements contained in 40 CFR 60 Subpart Da and Appendix F for CO, SO_2, NO_2, and O_2, and 40 CFR 75 Appendix

B for stack flow. The plan shall be updated and resubmitted upon request by EPA.

2. Prior to the date of startup and thereafter, the Permittee shall install, maintain and operate a transmissometer system for continuous measurement of the opacity of stack emissions. The system shall meet EPA monitoring performance specifications (40 CFR 60.13 and 40 CFR 60, Appendix B, Performance Specification 1).

3. For purposes of demonstrating compliance with the emission limits in Conditions IX.D, IX.E, IX.F, and IX.H, the Permittee shall calculate all averages as follows, except as otherwise stated in this permit:

   a. Compliance with all 3-hour block averages shall be determined by calculating the arithmetic average of the respective hourly emission rates that comprise the eight 3-hour blocks in a calendar day.

   b. Compliance with all 24-hour block averages shall be determined by calculating the arithmetic average of all hourly emission rates for each calendar day.

   c. Compliance with all 30-day rolling averages shall be determined by calculating the arithmetic average of all hourly emission rates for the 30 successive calendar days.

   d. Compliance with all 365-day rolling averages shall be determined by calculating the arithmetic average of all hourly emission rates for the 365 successive calendar days.

R. Reporting and Record Keeping

1. The Permittee must maintain a file of all records, data, measurements, reports, and documents related to the operation of the facility, including, but not limited to, the following:
   - all measurements or data pertaining to continuous monitoring systems evaluations;
   - all continuous emissions monitoring systems or monitoring device calibration checks;
   - all continuous emissions monitoring system data;
   - all adjustments and/or maintenance performed on any system or device at the Facility;
   - all records relating to performance tests;
   - for each fuel oil delivery, documents from the fuel supplier certifying compliance with the fuel sulfur content limit of Conditions IX.O.1 and IX.P.1;

- all coal content analyses for Fluorine and lead;
- for each emergency generator and fire pump engine, records of the date of operation and the associated elapsed operating time in hours; and
- all other information required by this permit and 40 CFR 60 Appendices A-B and 40 CFR 75, recorded in a permanent form suitable for inspection.

The file must be retained for five years following the date of such measurements, maintenance, reports and/or records.

2. The Permittee must notify EPA of the date on which the demonstration of the continuous monitoring system performance commences (40 CFR 60.13). This date must be within 60 days after commencing full load operation but not later than 180 days after initial startup.

3. The Permittee must submit a written report of all excess emissions to EPA for every calendar quarter. The report must include the following:

   a. The magnitude of the excess emissions computed in accordance with 40 CFR 60.13(h), any conversion factors used, the date and time of commencement, and compilation of each time period of excess emissions.

   b. Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of any equipment. The nature and cause of any malfunction (if known) and the corrective action taken or preventative measures adopted must also be reported.

   c. The date and time identifying each period during which the continuous emissions monitoring system was inoperative except for zero and span checks, and the nature of the system repairs or adjustments.

   d. When no excess emissions have occurred or the continuous monitoring system has not been inoperative, repaired, or adjusted, such information must be stated in the report.

   e. Excess emissions shall be defined as any period during which the average emissions of SO_2, NOx, CO or PM as measured by the CEMS exceeds the maximum emission limits set forth in Conditions IX.D, E, F and H.

4. Excess emissions indicated by the CEMS must be considered violations of the applicable emission limit for the purpose of this permit.

S. New Source Performance Standards

The proposed power plant is subject to the federal regulations entitled Standards of Performance for New Stationary Sources (40 CFR 60). The Permittee must meet all applicable requirements of 40 CFR 60 Subparts A, Da, Dc, Kb, Y, OOO, and IIII.

X. Agency Notifications

All correspondence as required by this permit must be forwarded to:

1) Director, Air Division (Attn: AIR-3)
   EPA Region IX
   75 Hawthorne Street
   San Francisco, CA 94105-3901

   e-mail: R9AirPermits@epa.gov

2) Environmental Department Director
   Navajo Nation EPA
   P.O. Box 9000
   Window Rock, AZ 86515