ADEQ Arizona Department of Environmental Quality
Janice K. Brewer, Governor
Henry R. Darwin, Director

PERMIT

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

AIR QUALITY CLASS I, TITLE V PERMIT

COMPANY: *Salt River Project*
FACILITY: *Coronado Generating Station*
PERMIT #: *52639*
DATE ISSUED: **December 6, 2011**
EXPIRY DATE: **December 6, 2016**

SUMMARY

This Class I, Title V operating permit renewal is issued to Salt River Project (SRP), the Permittee, for the continued operation of their Coronado Generating Station located in Apache County, six miles northeast of St. Johns, Arizona off U.S Highway 191. This is a renewal of Air Quality Permit #30732.

SRP Coronado operates two coal-fired electric utility steam generating units. The two units have a combined electrical output capacity of 912 gross megawatts (MW). Electrostatic precipitators and wet flue gas desulfurization systems are operated to control particulate matter emissions and sulfur dioxide emissions, respectively. Low-NO_x Burners and Overfire Air are used to control nitrogen oxide emissions. Beginning on or before January 1, 2012, calcium bromide will be applied to the coal to control mercury emissions. Beginning on or before June 1, 2014, Selective Catalytic Reduction (SCR) will be installed on Unit 2 to provide additional control of nitrogen oxide emissions.

An auxiliary boiler is used to provide auxiliary steam during startup if main boiler steam or turbine extraction steam is unavailable. Other operations at the plant include a main power building, coal mixing facilities, coal and ash handling facilities, ash disposal area, limestone handling equipment, process water treatment facilities, a forty-three mile railroad spur, water storage reservoirs, a 330 acre evaporation pond for non-recoverable waters, mechanically induced draft cooling towers, 500 kV and 69 kV switchyards and water supply from satellite well fields. The power plant commenced construction on July 25, 1974.

This permit is issued in accordance with Title 49, Chapter 3 of the Arizona Revised Statutes. All definitions, terms, and conditions used in this permit conform to those in the Arizona Administrative Code R18-2-101 et. seq. (A.A.C.) and 40 Code of Federal Regulations (CFR), except as otherwise defined in this permit. All terms and conditions in this permit are enforceable by the Administrator of the U.S. Environmental Protection Agency (EPA), except those terms and conditions that are specifically identified as “State Enforceable Only.”

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ATTACHMENT "A": GENERAL PROVISIONS

Air Quality Control Permit No. 30732
for
Salt River Project, Coronado Generating Station

I. PERMIT EXPIRATION AND RENEWAL [ARS § 49-426.F, A.A.C. R18-2-304.C.2, and -306.A.1]

A. This permit is valid for a period of five years from the date of issuance.

B. The Permittee shall submit an application for renewal of this permit at least 6 months, but not more than 18 months, prior to the date of permit expiration.

II. COMPLIANCE WITH PERMIT CONDITIONS [A.A.C. R18-2-306.A.8.a and b]

A. The Permittee shall comply with all conditions of this permit including all applicable requirements of the Arizona air quality statutes and air quality rules. Any permit noncompliance constitutes a violation of the Arizona Revised Statutes and is grounds for enforcement action; for permit termination, revocation and reissuance, or revision; or for denial of a permit renewal application. In addition, noncompliance with any federally enforceable requirement constitutes a violation of the Clean Air Act.

B. It shall not be a defense for a Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

III. PERMIT REVISION, REOPENING, REVOCATION AND REISSUANCE, OR TERMINATION FOR CAUSE [A.A.C. R18-2-306.A.8.c, -321.A.1, and -321.A.2]

A. The permit may be revised, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a permit revision, revocation and reissuance, termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.

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

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

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

incorporated into the Class I permit.

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

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

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

IV. POSTING OF PERMIT [A.A.C. R18-2-315]

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

1. Current permit number; or

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

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

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

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

VI. ANNUAL EMISSION INVENTORY QUESTIONNAIRE [A.A.C. R18-2-327.A and B]

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

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

VII. COMPLIANCE CERTIFICATION [A.A.C. R18-2-309.2.a, -309.2.c-d, and -309.5.d]

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

period between April 1st and September 30th of the current year.

The compliance certifications shall include the following:

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

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

3. The status of compliance with the terms and conditions of this permit for the period covered by the certification, based on the methods or means designated in Condition VII.A.2 above. The certifications shall identify each deviation and take it into account for consideration in the compliance certification;

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

5. All instances of deviations from permit requirements reported pursuant to Condition XII.B of this Attachment; and

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

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

C. If any outstanding compliance schedule exists, a progress report shall be submitted with the semi-annual compliance certifications required in Condition VII.A above.

VIII. CERTIFICATION OF TRUTH, ACCURACY AND COMPLETENESS [A.A.C. R18-2-304.H]

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

IX. INSPECTION AND ENTRY [A.A.C. R18-2-309.4]

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

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

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

C. Inspect, at reasonable times, any facilities, equipment (including monitoring and air

pollution control equipment), practices, or operations regulated or required under the permit;

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

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

X. PERMIT REVISION PURSUANT TO FEDERAL HAZARDOUS AIR POLLUTANT STANDARD [A.A.C. R18-2-304.C]

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

XI. ACCIDENTAL RELEASE PROGRAM [40 CFR Part 68]

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

XII. EXCESS EMISSIONS, PERMIT DEVIATIONS, AND EMERGENCY REPORTING

A. Excess Emissions Reporting [A.A.C. R18-2-310.01.A and -310.01.B]

1. Excess emissions shall be reported as follows:

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

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

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

   b. The report shall contain the following information: [A.A.C. R18-2-310.01.C]

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

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

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

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

(5) Nature and cause of such emissions;

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

(7) Steps taken to limit the excess emissions. If the excess emissions resulted from start-up or malfunction, the report shall contain a list of the steps taken to comply with the permit procedures.

2. In the case of continuous or recurring excess emissions, the notification requirements of this section shall be satisfied if the source provides the required notification after excess emissions are first detected and includes in such notification an estimate of the time the excess emissions will continue. Excess emissions occurring after the estimated time period, or changes in the nature of the emissions as originally reported, shall require additional notification pursuant to Condition XII.A.1 above.

B. Permit Deviations Reporting [A.A.C. R18-2-306.A.5.b]

The Permittee shall promptly report deviations from permit requirements, including those attributable to upset conditions as defined in the permit, the probable cause of such deviations, and any corrective actions or preventive measures taken. Prompt reporting shall mean that the report was submitted to the Director by certified mail, facsimile, or hand delivery within two working days of the time when emission limitations were exceeded due to an emergency or within two working days of the time when the owner or operator first learned of the occurrence of a deviation from a permit requirement.

C. Emergency Provision [A.A.C. R18-2-306.E]

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

2. An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if Condition XII.C.3 is met.

3. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:

   a. An emergency occurred and that the Permittee can identify the cause(s) of the emergency;

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

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

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

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

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

D. Compliance Schedule [ARS § 49-426.I.5]

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

E. Affirmative Defenses for Excess Emissions Due to Malfunctions, Startup, and Shutdown [A.A.C. R18-2-310]

1. Applicability

   This rule establishes affirmative defenses for certain emissions in excess of an emission standard or limitation and applies to all emission standards or limitations except for standards or limitations:

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

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

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

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

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

2. Affirmative Defense for Malfunctions

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

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

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

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

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

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

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

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

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

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

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

3. Affirmative Defense for Startup and Shutdown

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

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

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

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

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

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

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

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

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

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

4. Affirmative Defense for Malfunctions During Scheduled Maintenance

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

XII.E.2 above.

5. Demonstration of Reasonable and Practicable Measures

For an affirmative defense under Condition XII.E.2 or XII.E.3 above, the Permittee shall demonstrate, through submission of the data and information required by Condition XII.E and A.A.C. R18-2-310.01, that all reasonable and practicable measures within the Permittee's control were implemented to prevent the occurrence of the excess emissions.

XIII. RECORD KEEPING REQUIREMENTS [A.A.C. R18-2-306.A.4]

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

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

2. The date(s) analyses were performed;

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

4. A description of the analytical techniques or methods used;

5. The results of such analyses; and

6. The operating conditions as existing at the time of sampling or measurement.

B. The Permittee shall retain records of all required monitoring data and support information for a period of at least 5 years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings or other data recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.

C. All required records shall be maintained either in an unchangeable electronic format or in a handwritten logbook utilizing indelible ink**.**

XIV. REPORTING REQUIREMENTS [A.A.C. R18-2-306.A.5.a]

The Permittee shall submit the following reports:

A. Compliance certifications in accordance with Section VII of Attachment "A".

B. Excess emission; permit deviation, and emergency reports in accordance with Section XII of Attachment "A".

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

XV. DUTY TO PROVIDE INFORMATION [A.A.C. R18-2-304.G and -306.A.8.e]

A. The Permittee shall furnish to the Director, within a reasonable time, any information that the Director may request in writing to determine whether cause exists for revising,

revoking and reissuing, or terminating the permit, or to determine compliance with the permit. Upon request, the Permittee shall also furnish to the Director copies of records required to be kept by the permit. For information claimed to be confidential, the Permittee shall furnish an additional copy of such records directly to the Administrator along with a claim of confidentiality.

B. If the Permittee has failed to submit any relevant facts or has submitted incorrect information in the permit application, the Permittee shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrected information.

XVI. PERMIT AMENDMENT OR REVISION [A.A.C. R18-2-318, -319, and -320]

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

A. Administrative Permit Amendment (A.A.C. R18-2-318);

B. Minor Permit Revision (A.A.C. R18-2-319); and

C. Significant Permit Revision (A.A.C. R18-2-320).

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

XVII. FACILITY CHANGE WITHOUT A PERMIT REVISION [A.A.C. R18-2-306.A.4 and -317]

A. The Permittee may make changes at the permitted source without a permit revision if all of the following apply:

1. The changes are not modifications under any provision of Title I of the Act or under ARS § 49-401.01(19);

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

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

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

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

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

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

D. Each notification shall include:

1. When the proposed change will occur;

2. A description of the change;

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

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

E. The permit shield described in A.A.C. R18-2-325 shall not apply to any change made under this Section, other than implementation of an alternate to Conditions XVII.A and XVII.B above.

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

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

XVIII. TESTING REQUIREMENTS [A.A.C. R18-2-312]

A. The Permittee shall conduct performance tests as specified in the permit and at such other times as may be required by the Director.

B. Operational Conditions During Testing

Tests shall be conducted during operation at the maximum possible capacity of each unit under representative operational conditions unless other conditions are required by the applicable test method or in this permit. With prior written approval from the Director, testing may be performed at a lower rate. Operations during periods of start-up, shutdown, and malfunction (as defined in A.A.C. R18-2-101 and 40 CFR 60.8) shall not constitute representative operational conditions unless otherwise specified in the applicable standard.

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

D. Test Plan

At least 14 calendar days prior to performing a test, the Permittee shall submit a test plan to the Director in accordance with A.A.C. R18-2-312.B and the Arizona Testing Manual. This test plan must include the following:

1. Test duration;

2. Test location(s);

3. Test method(s); and

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

E. Stack Sampling Facilities

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

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

2. Safe sampling platform(s);

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

4. Utilities for sampling and testing equipment.

F. Interpretation of Final Result

Each performance test shall consist of three separate runs using the applicable test method. Each run shall be conducted for the time and under the conditions specified in the applicable standard. For the purpose of determining compliance with an applicable standard, the arithmetic mean of the results of the three runs shall apply. In the event that a sample is accidentally lost or conditions occur in which one of the three runs is required to be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances beyond the Permittee's control, compliance may, upon the Director's approval, be determined using the arithmetic mean of the results of the other two runs. If the Director or the Director's designee is present, tests may only be stopped with the Director's or such designee's approval. If the Director or the Director's designee is not present, tests may only be stopped for good cause. Good cause includes: forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances beyond the Permittee's control. Termination of any test without good cause after the first run is commenced shall constitute a failure of the test. Supporting documentation, which demonstrates good cause, must be submitted.

G. Report of Final Test Results

A written report of the results of all performance tests shall be submitted to the Director within 45 days after the test is performed. The report shall be submitted in accordance

with the Arizona Testing Manual and A.A.C. R18-2-312.A.

XIX. PROPERTY RIGHTS [A.A.C. R18-2-306.A.8.d]

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

XX. SEVERABILITY CLAUSE [A.A.C. R18-2-306.A.7]

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

XXI. PERMIT SHIELD [A.A.C. R18-2-325]

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

XXII. PROTECTION OF STRATOSPHERIC OZONE [40 CFR Part 82]

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

XXIII. NEW SOURCE PERFORMANCE STANDARD & NATIONAL EMISSIONS STANDARDS FOR HAZARDOUS AIR POLLUTANTS [40 CFR Part 60, Part 63]

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

XXIV. ACID RAIN

A. When provisions or requirements of the regulations incorporated pursuant to A.A.C. R18-2-333.A (Acid Rain) conflict with any of the applicable requirements, the regulations incorporated by A.A.C. R18-2-333.A shall apply and take precedence. [A.A.C. R18-2-333]

B. No permit revision shall be required for increases in emissions that are authorized by allowances acquired pursuant to acid rain program, provided that such increases do not require a permit revision under any other applicable requirement. [A.A.C. R18-2-306.A.6.a]

C. No limit shall be place on the number of allowances held by the source. The source may not, however, use allowances as defense to noncompliance with any other applicable requirement. [A.A.C. R18-2-306.A.6.c]

D. Any such allowance shall be accounted for according to the procedures established in regulations promulgated under Title IV of the Act. [A.A.C. R18-2-306.A.6.c]

E. All of the following are prohibited: [A.A.C. R18-2-306.A.6.d]

1. Annual emissions of sulfur dioxide in excess of the number of allowances to emit sulfur dioxide held by the owners of the operations of the unit or the designed representative of the owners or the operators as of the applicable allowance transfer deadline;

2. Exceedances of applicable emissions rates;

3. The use of any allowance prior to the year for which it was allocated; and

4. Contravention of any other provision of the permit.

ATTACHMENT "B": SPECIFIC CONDITIONS

Air Quality Control Permit No. 52639
for
Salt River Project - Coronado Generating Station

I. FACILITY WIDE LIMITATIONS

A. The Permittee shall have on site or on call a person that is certified in EPA Reference Method 9. [A.A.C. R18-2-306.A.3.c]

B. Permittee shall record any change in fuel type including:

1. Type of fuel change;
2. Date of the fuel change; and
3. Time of the fuel change.

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

C. Permittee shall maintain a log of all adjustments, replacements, and maintenance performed on all air pollution control equipment.

[Permit #30732, Attachment "B", Condition I.D]

D. At the time the compliance certifications required by Section VII of Attachment "A" are submitted, the Permittee shall submit reports of all monitoring activities required by Attachment "B" performed during the six month compliance term.

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

II. UNIT 1 AND UNIT 2 BOILERS

A. Applicability

This section applies to the Unit 1 and Unit 2 boilers as described in Attachment "C" of this permit.

B. Definitions

1. *Unit Operating Day* - A Unit Operating Day for Unit 1 means any calendar day on which Unit 1 fires fossil fuel. A Unit Operating Day for Unit 2 means any calendar day on which Unit 2 fires fossil fuel.

   [Significant Revision #46236 Condition II.A.2]

2. *Startup* - Startup means the setting into operation of Coronado Generating Station (CGS) Unit 1 or Unit 2 for any purpose. [40 CFR 60.2]

3. *Shutdown* - Shutdown means the cessation of operation of Coronado Generating Station (CGS) Unit 1 or Unit 2 for any purpose. [40 CFR 60.2]

4. *Malfunction* - Malfunction means any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner. Failures that are caused in part by poor maintenance or careless operation are not malfunctions. [40 CFR 60.2]

C. Operational Limitations

1. Fuel Limitations

Permittee shall burn only the following as fuel in the boiler units:

a. Coal;

b. Fuel Oil (Number 2 fuel oil or used oil and subject to Section IX of this Attachment);

c. Co-firing of coal and Number 2 fuel oil; and

d. Co-firing of coal and used oil fuel subject to Section IX of this Attachment. [A.A.C. R.18-2-306A.2]

2. Permittee shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required by this section recorded in a permanent form suitable for inspection. The file shall be retained for at least five years following the date of such measurements, maintenance, reports and records. [40 CFR 60.7(f)]

3. Excess Emissions and Monitoring System Performance (MSP) Reports

The Permittee shall submit excess emissions and monitoring system performance (MSP) reports to the Department and EPA Region IX semi-annually for each six-month period in the calendar year. All semiannual reports shall be postmarked by the 30th day following the end of each six-month period. Periods of excess emissions as defined in the applicable sections and monitoring systems (MS) downtime shall be reported. Each excess emissions and MSP report shall include the following:

a. The magnitude of excess emissions computed, any conversion factor(s) used; the date and time of commencement and completion of each time period of excess emissions, and the process operating time during the reporting period.

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

c. The date and time identifying each period during which the continuous 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 systems have not been inoperative, repaired, or adjusted, such

information shall be stated in the report.

[40 CFR 60.45(g), 60.7(c)]

4. In addition to II.C.3.above, Permittee shall report emissions exceeding an emission limitation or standard as deviations in accordance with Section XII.B of Attachment "A" of this permit.

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

5. Emission Rates for Performance Testing

When conducting the required performance tests, the Permittee shall determine compliance with the PM, SO_2, & NO_x emissions standards as follows:

a. Emission Rates Using O_2 as Diluent Gas

The emission rate (E) of PM, SO_2, or NO_x shall be computed for each run using the following equation:

$$E = C F_d \frac{(20.9)}{(20.9 - \% O_2)}$$

E = Emission rate of pollutant, ng/J (1b/million Btu).
C = Concentration of pollutant, ng/dscm (1b/dscf).
$\%O_2$ = Oxygen concentration, percent dry basis.
F_d = Factor as determined from Method 19.

[40 CFR 60.46(b)(1)]

b. Emission Rates Using CO_2 as Diluent Gas

As an alternate to the reference method, the emission rate (E) of PM, SO_2, & NO_x, may be determined by using the Fc factor in the following equation:

$$E = C F_c \frac{100}{\%CO_2}$$

E = emission rate of pollutant, ng/J (1b/million Btu).
C = concentration of pollutant, ng/dscm (1b/dscf).
$\%CO_2$ = carbon dioxide concentration, percent dry basis.
F_c = factor as determined from Method 19.

[40 CFR 60.46(d)(1)]

6. Permit Shield

Compliance with this Section shall be deemed compliance with Permit #30732 Attachment "B" permit condition II.B.1 & condition I.D.

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

D. Particulate Matter and Opacity

1. Emission Limitations/Standards

a. The Permittee shall not cause to be discharged into the atmosphere from the stack of each unit any gases which contain particulate matter in

excess of 43 nanograms per joule heat input (0.10 lb per million Btu) derived from fossil fuel.

[40 CFR 60.42(a)(1)]

b. *The Permittee, upon installation and operation of the new FGD system associated with Unit 1 as per Condition II.G.2.b, and continuing thereafter, shall not emit filterable particulate matter (PM) in excess of 0.030 lbs/MMBtu, as determined by performance tests.*

[Significant Revision #46236 Condition II.C.1.b.(2); & A.A.C. R18-2-406.A.4]
[Material Permit Conditions are defined by underline and italics]

c. *The Permittee, upon installation and operation of the new FGD system associated with Unit 2 as per Condition II.G.2.b, and continuing thereafter, shall not emit filterable PM and particulate matter below 10 micron size (PM_{10}) in excess of 0.030 lbs/MMBtu, as determined by performance tests.*

[Significant Revision #46236 Condition II.C.1.b.(3); & A.A.C. R18-2-406.A.4]
[Material Permit Conditions are defined by underline and italics]

d. *The opacity of emissions from the stack of each unit shall not be greater than 20 percent except for one six-minute period per hour of not more than 27 percent opacity.* Periods of startup, shutdown, or malfunction, as defined in condition II.B.2, B.3, & B.4, are excluded from the opacity standard. Opacity readings of portions of plumes which contain condensed, uncombined water vapor shall not be used for the purposes of determining compliance with opacity standards.

[40 CFR 60.42(a)(2), 60.11(c), 60.11(e)(1); & A.A.C. R18-2-331.A.3.f]
[Material Permit Conditions are defined by underline and italics]

e. Opacity excess emissions for Units 1 and 2 are defined as any six-minute period during which the average opacity of emissions exceeds 20 percent opacity, except that one six-minute average per hour of up to 27 percent opacity need not be reported.

[40 CFR 60.45(g)(1)]

2. Air Pollution Control Requirements

a. *At all times, including periods of startup, shutdown, and malfunction, Permittee shall, to the extent practicable,* maintain and *operate each Hot Side Electrostatic Precipitator (HS-ESP) in a manner consistent with good air pollution control practices for minimizing particulate matter emissions.*

[40 CFR 60.11(d) and A.A.C. R18-2-331.A.3.e]
[Material Permit Conditions are defined by underline and italics]

b. *The Permittee shall operate each existing HS-ESP on Unit 1 and Unit 2 at all times when the Unit is in operation to maximize PM reductions to the extent practicable, provided that such operation of the HS-ESP is consistent with technological limitations, manufacturer's specifications, and good engineering and maintenance practices for the HS-ESP.*

[Significant Revision #46236 Condition II.C.2.b and A.A.C. R18-2-331.A.3.e]
[Material Permit Conditions are defined by underline and italics]

c. Except as required during correlation testing under 40 CFR Part 60, Appendix B, PS-11, and Quality Assurance Requirements under Appendix F, Procedure 2, the Permittee shall at a minimum perform the following on the HS-ESP to the extent reasonably practicable:

i. Fully energize each section of the HS-ESP for each unit and repair any failed HS-ESP section at the next planned or unplanned unit outage of sufficient length;

ii. Operate automatic control systems on each HS-ESP to maximize particulate matter collection efficiency;

iii. Maintain power levels delivered to the HS-ESPs, consistent with manufacturer's specifications, the operational design of the unit, and good engineering practices;

iv. Inspect for and repair during the next planned or unplanned unit outage of sufficient length any openings in HS-ESP casings, ductwork, and expansion joints to minimize air leakage; and

v. Optimize the plate-cleaning and discharge-electrode-cleaning systems for the HS-ESPs at each unit by varying the cycle time, cycle frequency, rapper-vibrator intensity, and number of strikes per cleaning event.

[Significant Revision #46236 Condition II.C.2.c]

3. Monitoring & Recordkeeping Requirements

a. *Within 180 calendar days following commencement of operation of each flue gas desulfurization (FGD) system, the Permittee shall install,* maintain, correlate, and operate *a continuous emission monitoring systems for measuring PM emissions on the unit being controlled by the FGD system.*

[Significant Revision #46236, Condition II.B.3.b and A.A.C. R18-2-331.A.3.c]
[Material Permit Conditions are defined by underline and italics]

b. *No later than 120 days prior to the deadline for commencing operation of the PM CEMS, the Permittee shall submit to ADEQ and EPA a proposed Quality Assurance/Quality Control (QA/QC) protocol that shall be followed for the PM CEMS.*

[Significant Revision #46236, Condition II.C.3.g.(1)(b); A.A.C. R18-2-331.A.3.c]
[Material Permit Conditions are defined by underline and italics]

c. *In developing the plan for installation and correlation of the PM CEMS and QA/QC protocol, the Permittee shall use the criteria set forth in 40 CFR Part 60, Appendix B, PS-11, and Appendix F, Procedure 2.*

[Significant Revision #46236, Condition II.C.3.g.(1)(c); A.A.C. R18-2-331.A.3.c]
[Material Permit Conditions are defined by underline and italics]

d. Following ADEQ's and EPA's approval of the QA/QC plan described in Condition II.D.3.b, *the Permittee shall thereafter operate the PM CEMS in accordance with the approved QA/QC protocol.*

[Significant Revision #46236, Condition II.C.3.g(1)(d); A.A.C. R18-2-331.A.3.c]

[Material Permit Conditions are defined by underline and italics]

e. *Within 180 calendar days following commencement of operation of each FGD, the Permittee shall conduct performance specification tests and demonstrate compliance with the PM CEMS installation and certification plan approved by ADEQ and EPA.*

[Significant Revision #46236, Condition II.C.3.g(1)(e); A.A.C. R18-2-331.A.3.c]

f. The PM CEMS shall comprise a continuous particle mass monitor measuring particulate matter concentration, directly or indirectly, on an hourly average basis and a diluents monitor used to convert the concentration to units expressed in pounds per MMBtu (lbs/MMBtu). The PM CEMS installed at Unit 1 and Unit 2 must be appropriate for the anticipated stack conditions and capable of measuring PM concentrations on an hourly average basis.

[Significant Revision #46236, Condition II.C.3.g(1)(f)]

g. Except for periods of monitor malfunction, maintenance, or repair, SRP shall continuously operate the PM CEMS at all times when the Unit it serves is operating.

[Significant Revision #46236, Condition II.C.3.g(1)(g)]

h. PM CEMS Demonstration Period

i. Upon completion of the PM CEMS performance specification tests, the Permittee shall operate the PM CEMS for at least two years. If, after 2 years of operation, the Permittee believes that it is infeasible to continue operation of the PM CEMS, the Permittee may submit a demonstration of infeasibility to ADEQ and EPA within 90 days after the end of the demonstration period:

(1) As part of that demonstration, the Permittee shall submit an alternative PM monitoring plan for review and approval by ADEQ and EPA. If ADEQ and EPA disapprove the alternative monitoring plan, or if ADEQ and EPA rejects the Permittee's assertion that it is infeasible to continue operating the PM CEMS, such disagreement is subject to dispute resolution as specified in Section XV of the EPA Consent Decree (Civil Action No. 2:08-cv-1479-JAT).

[Significant Revision #46236, Condition II.C.3.g(2)(a)(i)]

(2) The Permittee shall submit a permit revision application to ADEQ to incorporate the approved alternative PM monitoring plan within 30 days of obtaining approval.

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

ii. Operation of a PM CEMS shall be considered "infeasible" if, by way of example, the PM CEMS:

(1) Cannot be kept in proper condition for sufficient periods of time to produce reliable, adequate, or useful data; or

(2) The Permittee demonstrates that recurring, chronic, or unusual equipment adjustment or servicing needs in relation to other types of continuous emission monitors cannot be resolved through reasonable expenditures of resources; or

(3) Chronic and difficult operational issues at Unit 1 or Unit 2 cannot be resolved through reasonable expenditure of resources; or

(4) The data produced by the CEMS cannot be used to assess PM emissions from Unit 1 or Unit 2 or performance of that Unit's control devices.

[Significant Revision #46236, Condition II.C.3.g(2)(b)]

iii If ADEQ and EPA determine that the Permittee has demonstrated infeasibility pursuant to Condition II.D.3.h.ii, the Permittee shall be entitled to discontinue operation of and remove the PM CEMS.

[Significant Revision #46236, Condition II.C.3.g(2)(c)]

iv. If, after 2 years of operation, the Permittee determines that it is feasible to continue operation of the PM CEMS, the Permittee shall continue to comply with all requirements specified in this permit for the operation and maintenance of the CEMS.

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

i. The Permittee shall maintain, in an electronic database, the hourly average emission values from all PM CEMS data in lb/MMBtu.

[Significant Revision #46236, Condition II.C.3.g(3)]

j. *The Permittee shall calibrate*, maintain, and operate *continuous opacity monitoring system (COMS) for measuring the opacity of emissions.*

[40 CFR 60.45(a), A.A.C. R18-2-331.A.3.c]
[Material Permit Conditions are defined by underline and italics]

k. COMS Requirements

The COMS shall meet the following requirements:

i 40 CFR 60, Appendix B, Performance Specification 1, "Specification and Test Procedures for Opacity Continuous Emission Monitoring Systems in Stationary Sources"

(1) Apparatus

(2) Installation Specifications
(3) Design and Performance Specifications
(4) Design Specifications Verification Procedure
(5) Performance Specifications Verification Procedure
(6) Equations

[40 CFR 60.13(a)]

ii. The following quality assurance requirements:

(1) Calibration Checks

Permittee shall check the zero and span calibration drifts at least once daily in accordance with a written procedure.

[40 CFR 60.13(d)(1) and 40 CFR 60, Appendix B, PS1, 5.2]

(2) Zero and Span Drift Adjustments

(a) The zero and span shall, as a minimum, be adjusted whenever the 24-hr zero drift or 24-hr span drift exceeds 4% opacity.

[40 CFR 60.13(d)(1)]

(b) The system shall allow for the amount of excess zero and span drift measured at the 24-hour interval checks to be recorded and quantified.

[40 CFR 60.13(d)(1)]

(c) The optical surfaces exposed to the effluent gases shall be cleaned prior to performing the zero and span drift adjustments, except for systems using automatic zero adjustments.

[40 CFR 60.13(d)(1)]

(d) For systems using automatic zero adjustments, the optical surfaces shall be cleaned when the cumulative automatic zero compensation exceeds 4% opacity.

[40 CFR 60.13(d)(1)]

(3) System Checks

A method for producing a simulated zero opacity condition and an upscale (span) opacity condition using a certified neutral density filter or other related technique to produce a known obscuration of the light beam to provide a system check of the analyzer internal optical surfaces and all electronic circuitry including the lamp and photodetector assembly shall be used by the Permittee.

[40 CFR 60.13(d)(2)]

(4) Minimum Frequency of Operation

Except during periods of system breakdowns, repairs, calibration checks, and zero and span adjustments, the Continuous Opacity Monitoring System (COMS) shall be in continuous operation and shall complete a minimum of one cycle of sampling and analyzing for each successive 10-second period and one cycle of data recording for each successive 6-minute period.

[40 CFR 60.13(e)(1)]

(5) Data Reduction and Missing Data

(a) Permittee shall reduce all data from the COMS to 6-minute averages. Six-minute opacity averages shall be calculated from 36 or more data points equally spaced over each 6-minute period.

(b) Data recorded during periods of system breakdowns, repairs, calibration checks, and zero and span adjustments shall not be included in the data averages computed under the previous paragraph. An arithmetic or integrated average of all data may be used.

[40 CFR 60.13(h)]

l. Compliance Assurance Monitoring (CAM) & Periodic Monitoring for Particulate Matter

i. Until the new Flue Gas Desulfurization (FGD) commences operation for each unit, the Permittee shall comply with the following:

(1) The Permittee shall measure the opacity of exhaust gases as an indicator of particulate matter emissions. The COMS shall be used to monitor the opacity. The COMS shall be installed and operated in accordance with the requirements specified in Condition II.D.3.k of this Attachment.

[40 CFR 64.6(c)(1)(i), 64.6(c)(1)(ii)]

(2) The Permittee shall measure the secondary current and voltage for each section of each ESP.

[40 CFR 64.6(c)(1)(i)]

(3) Using COMS data, the Permittee shall calculate rolling 1-hour average opacities excluding periods of boiler startup, shutdown, and malfunction. If at any point, excluding periods of startup, shutdown, and malfunction, the opacity is equal to or exceeds 18%, then the Permittee shall:

(a) Record the secondary current and secondary voltage for each section of each ESP at that specific moment and determine if the current and/or voltage is with in the range established by the Permittee previously, and

(b) Record the operational status of the specific boiler (i.e. load change increase or decrease).

(4) Rolling 1-hour average opacities of 18% or greater and electrical parameters (secondary current and secondary voltage) outside the range established previously shall be considered an excursion.

[40 CFR 64.6(c)(2)]

(5) The Permittee shall record and monitor on a continuous basis (at least once every 15 minutes) the secondary current and voltage for each section of each ESP. If the secondary voltage and/or the current is outside the range established previously, then the Permittee shall record the occurrence and corrective action taken to return the electrical parameters back within the established range. This event does not constitute a deviation or an excursion.

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

ii. Beginning on the date on which the new FGD commences operation and ending on the date on which the Department approves the proposed secondary indicator(s) based on the PM CEMS correlation test for each unit, the Permittee shall comply with the following:

(1) The Permittee shall measure the secondary current and voltage of the ESP.

[40 CFR 64.6(c)(1)(i), 64.6(c)(1)(ii)]

(2) The Permittee shall monitor the operational status of the wet FGD System limestone slurry recycle pumps.

[40 CFR 64.6(c)(1)(i)]

(3) The Permittee shall record and monitor on a continuous basis (at least once every 15 minutes) the secondary voltage and current for each section of each ESP. If the secondary voltage and/or the current are outside the range established previously, then the Permittee shall record the occurrence and corrective action taken to return the electrical parameters back within the established range. This event does not constitute a deviation or an excursion. [A.A.C. R18-2-306.A.3.]

(4) When the ESP secondary current and voltage are out of

range and all of the limestone slurry recycle pumps associated with the wet FGD system are inoperative, the event will be considered as an excursion.

iii. Beginning on the date the Department approves the proposed secondary indicator(s) based on the PM correlation tests, the Permittee shall comply with the following indicators:

(1) Emission measurements from the PM CEMS shall be a primary indicator of PM emissions.

(2) The Permittee shall define secondary indicator(s) based on data collected during the PM CEMS Correlation tests. The Permittee shall establish an acceptable range for the secondary indicator(s) during the correlation tests. The proposed indicator(s) and range(s) shall be submitted to the Department within 60 days of the date on which the Correlation test is completed. Beginning on the date the Department approves the proposed secondary indicator(s), the approved indicator(s) shall be monitored and recorded as secondary indicators of PM emissions.

(3) If PM CEMS emission measurements are greater than 0.028 lb/MMBtu on a 24-hour rolling average, and the secondary indicator(s) are outside the allowable range established in accordance with Condition II.D.3.l.iii(2), this shall be considered an excursion and trigger an inspection, corrective action, and recordkeeping requirement in accordance with Condition II.D.3.l.vi & II.D.3.l.viii of this Attachment.
[40 CFR 64.6(c)(1)(i)]

iv. The Permittee shall maintain the monitoring, including but not limited to maintaining necessary parts for routine repair of the monitoring equipment.
[40 CFR 64.6(c)(3), and - 64.7(b)]

v. Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), Permittee shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the boilers are operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of this part, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable. Permittee shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring

malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.

[40 CFR 64.6(c)(3), 64.9(c)]

vi. Response to excursions

(1) Upon detecting an excursion or exceedance, Permittee shall restore operation of the boiler (including the control device and associated capture system) to their normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown, or malfunction, and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operations to within the indicator range, designated condition, or below applicable emission limitation or standard, as applicable.

(2) Determination of whether Permittee has used acceptable procedures in response to an excursion or exceedance will be based in information available, which may include but is not limited to, monitoring results, review of operation, and maintenance procedures and records, and inspection of the control device, associated capture system, and process.

[40 CFR 64.6(c)(3), 64.7(d)]

vii. After approval of the monitoring under this section, if the Permittee identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, Permittee shall promptly notify the Department, and if necessary, submit a proposed modification to this permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, re-establishing indicator ranges or designated conditions, modifying the frequency of conduction monitoring and collecting data, or the monitoring of additional parameters.

[40 CFR 64.6(c) (3), 64.9(e)]

viii. Excursions shall be reported as required by Condition VII.A.4 of Attachment "A" of this permit. The report shall include, at a minimum, the following:

(1) Summary information on the number, duration and cause (including unknown cause, if applicable) of excursion or exceedances, as applicable, and the corrective actions taken; and

(2) Summary information on the number, duration and cause (including unknown cause, if applicable) for monitoring downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable).

[A.A.C. R18-2-309(2)(c)(iii), 64.9(a)(2)]

m. The Permittee shall maintain a record of the applicable monitoring parameters defined in Condition II.D.3. Records of all excursions and corrective actions taken including the date and time of the event shall be maintained.

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

4. Reporting Requirements

a. The Permittee shall report the data recorded by the PM CEMS, expressed in lb/MMBtu on a rolling average 3-hour, 6-hour, 24-hour, 30-day, and 365-day basis in electronic format to the ADEQ and EPA in accordance with Condition VII of Attachment "A".

[Significant Revision #46236, Condition II.C.3.g(4)(a)]

b. The Permittee shall identify in the report any PM concentrations measured by the PM CEMS that are greater than 125% of the highest PM concentration level used in the most recent correlation testing performed pursuant to PS-11. [Significant Revision #46236, Condition II.C.3.g(4)(b)]

5. Performance Testing

a. The Permittee shall perform annual performance tests on each boiler Unit to determine compliance with the particulate matter concentration using EPA Reference Method 5, 5B, or 17. [40 CFR 60.46(b)(2)]

b. The Permittee may use Method 17 if the stack gas temperature at the sampling location does not exceed an average temperature of 160 °C (320 °F). The procedures of sections 8.1 and 11.1 of Method 5B may be used with Method 17 when used after wet FGD systems and the effluent gas is not saturated or laden with water droplets. [40 CFR 60.46(d)(2)]

c. FGD Systems

Within 180 days of installation and commencing operation of the FGD system for each unit, the Permittee shall conduct an initial performance test to determine compliance with the PM emissions rate established in

Conditions II.D.1.b and II.D.1.c using the below mentioned reference methods and procedures (filterable portion only). Thereafter, the tests shall be conducted annually.

i. 40 CFR Part 60, Appendix A-3, Method 5, Method 5B, or Method 5I.

ii. 40 CFR Part 60, Appendix A-6, Method 17; or

iii. Alternative stack tests or methods requested by the Permittee and approved by ADEQ and EPA.

[Significant Revision #46236, Condition II.C.4.c]

d. Test Procedures

i. The Permittee shall conduct each test consisting of three separate runs performed under representative operating conditions not including periods of startup, shutdown, or malfunction.

ii. The sampling time for each run shall be at least 120 minutes and the volume of each run shall be 1.70 dry standard cubic meters (60 standard dry cubic feet).

iii. The Permittee shall calculate the PM emission rate from the stack test results in accordance with 40 CFR 60.8 (f).

e. The Permittee shall submit the results of each PM stack test to EPA and ADEQ within forty-five (45) days of completion of each test.

[Significant Revision #46236, Condition II.C.4.d]

7. Permit Shield [A.A.C. R18-2-325]

Compliance with this Section shall be deemed compliance with 40 CFR 60.42(a)(1), 40 CFR 60.42(a)(2), 40 CFR, 60.45(a), 40 CFR 60.45(g)(1), 40 CFR 60.46(b)(2), 40 CFR 60.46(b)(3), 40 CFR 60.46(d)(2), 40 CFR 64.3, 40 CFR 64.4, 40 CFR 64.5, 40 CFR 64.6, 40 CFR 64.7, 40 CFR 64.9, and EPA Consent Decree VI.A.63, VI.B.64, VI.B.65, VI.C.67, VI.C.68, VI.C.69, VI.C.70, VI.C.71, VI.C.72, VI.C.73, and VI.D.74. Compliance with this Section shall be deemed compliance with 40 CFR 60.45(a), 40 CFR 60.45(g), 40 CFR 60.46(b)(1), 40 CFR 60.46(d)(1), and Permit #30732, Attachment B, Condition II.C.1.

E. Nitrogen Oxides (NOx)

1. Emission Limitations/Standards

a. Coal

i. Permittee shall not cause to be discharged into the atmosphere from the stack of each boiler any gases which contain nitrogen oxides, expressed as NO_2 in excess of 300 nanograms per joule heat input (0.70 lb per million Btu) derived from coal.

[40 CFR 60.44(a)(3)]

ii. Beginning on the earlier of ninety (90) Unit Operating Days or 180 calendar days after the LNB are installed and continuing thereafter, the Permittee shall not allow the 30-day rolling average NO_x emission rate from the stack of each boiler to exceed 0.320 lb/MMBtu.

[Significant Revision #46236, Condition II.D.1.e]

iii. Beginning on June 1, 2014, and continuing thereafter, the Permittee shall not allow the 30-day rolling average NO_x emission rate from Unit 2 to exceed 0.080 lb/MMBtu.

[Significant Revision #46236, Condition II.C.1.f]

iv. Beginning on June 1, 2014, and continuing thereafter, the Permittee shall not allow the 365-day plant-wide rolling NO_x emission rate for Unit 1 and Unit 2 to exceed 7,300 tons per year. [Significant Revision #46236, Condition II.C.1.g]

b. Fuel Oil and Used oil fuel

Permittee shall not cause to be discharged into the atmosphere from the stack of each unit any gases which contain nitrogen oxides, expressed as NO_2 in excess of 129 nanograms per joule heat input (0.30 lb per million Btu) derived from used oil fuel.

[40 CFR 60.44(a)(2)]

c. Combination Fuels

i. When different fossil fuels are burned simultaneously in any combination, the applicable standard (in ng/J) is determined by proration using the following formula:

$$PS_{NOx} = \frac{w(260) + x(86) + y(130) + z(300)}{w + x + y + z}$$

Where:

PS_{NOX} = is the prorated standard for nitrogen oxides when burning different fuels simultaneously, in nanograms per joule heat input derived from all fossil fuels fired or from all fossil fuels and wood residue fired;
w = is the percentage of total heat input derived from lignite;
x = is the percentage of total heat input derived from gaseous fossil fuel;
y = is the percentage of total heat input derived from liquid fossil fuel; and
z = is the percentage of total heat input derived from solid fossil fuel (except lignite)

[40 CFR 60.44(b)]

ii. Compliance shall be based on the total heat input from all fossil fuels burned, including gaseous fuels.

[40 CFR 60.43(c)]

d. Excess Emissions

i. Excess emissions for Units 1 and 2 are defined as any three-hour period during which the average emissions (arithmetic average of three contiguous one-hour periods) exceed the applicable standards in Section II.E.1 of this Attachment.

[40 CFR 60.45(g)(3)]

ii. Beginning on the earlier of ninety Unit Operating Days or 180 calendar days after the LNB are installed, excess emissions for Units 1 and 2 are defined as any 30-day rolling average that exceeds the applicable standards in Section II.E.1.a.ii.

iii. Beginning June 1, 2014, excess emissions for Units 1 and 2 are defined as any 30-day rolling average that exceeds the applicable standards in Section II.E.1.a.iii, or a 365-rolling total that exceeds the applicable limit specified in Section II.E.1.a.iv.

2. Air Pollution Control Requirements

a. *The Permittee shall operate the low-NO_x burners(LNB) in accordance with manufacturer's specifications and good engineering practices to minimize emissions*.

[Significant Revision #46236, Condition II.D.2.c; A.A.C. R18-2-331.A.3.d & e]

[Material Permit Conditions are defined by underline and italics]

b. *The Permittee shall install a Selective Catalytic Reduction (SCR) system on Unit 2 no later than June 1, 2014. At all times during the operation of Unit 2, the Permittee shall operate the SCR in accordance with manufacturer's specifications and good engineering practices to minimize emissions*.

[Significant Revision #46236, Condition II.D.2.d; A.A.C. R18-2-331.A.3.d & e]

[Material Permit Conditions are defined by underline and italics]

c. *The Permittee shall continuously operate each NO_x control at all times the unit it serves is in operation consistent with technological limitations, manufacturer's specifications, and good engineering and maintenance practices for minimizing emissions to the extent practicable*

[Significant Revision #46236, Condition II.D.2.e; A.A.C. R18-2-331.A.3.e]

[Material Permit Conditions are defined by underline and italics]

3. Monitoring & Recordkeeping Requirements

a. Continuous Emissions Monitoring System (CEMS)

The Permittee shall calibrate, maintain, and operate *a continuous emissions monitoring system for measuring nitrogen oxides emissions.*

[40 CFR 60.45(a); A.A.C. R18-2-331.A.3.c]

[Material Permit Conditions are defined by underline and italics]

b. The CEMS for NO_x, shall meet the following requirements:

i. 40 CFR Part 75, Appendix A, Specification and Test Procedures

(1) Installation and measurement location
(2) Equipment specifications
(3) Performance specifications
(4) Data acquisition and handling systems
(5) Calibration gas
(6) Certifications tests and procedures
(7) Calculations

ii. 40 CFR Part 75, Appendix B, Quality Assurance and Quality Control Procedure

(1) Quality control program
(2) Frequency of testing

iii. Data Reduction

Permittee shall comply with the data reduction requirements of 40 CFR Part 75.10(d)(1).

c. Monitoring of NO_x Emission Rate

The Permittee shall determine the 30-day rolling average NO_x emission rate for Unit 1 and Unit 2 using CEMS in accordance with the procedures of 40 CFR Part 75, with the following exceptions:

(1) NO_x emissions data need not be bias adjusted

(2) For CEMS with a span less than 100 parts per million (ppm), the calibration drift and out-of-control criteria in Procedure 1, Section 4.3 of 40 CFR Part 60 Appendix F shall apply in lieu of the low emitter specifications in 40 CFR Part 75, Appendix B, Section 2.1.

(3) For CEMS with a span less than or equal to 30 ppm, the exemption from the 40 CFR Part 75 linearity check will not apply and either the 40 CFR Part 75 linearity check or the cylinder gas audit described in Procedure 1, Section 5.1.2 of 40 CFR Part 60, Appendix F must be performed on a quarterly basis.

(4) After installing and commencing operation on the SCR system, for Unit 2, an annual relative accuracy test (RATA) audit shall meet, at a minimum, a relative accuracy of less than 20 percent or an accuracy of less than 0.016 lb/MMBtu (expressed as the difference between the monitor mean and the reference value mean).

[Significant Revision #46236, Condition II.D.3.c]

d. Determining the 30-Day Rolling Average NO_x Emission Rate

(1) The Permittee shall calculate the 30-day rolling average NO_x emission rate in accordance with the following procedure:

(a) Sum the total pounds of NO_x emitted from each Unit during the current Unit Operating Day and the previous 29 Unit Operating Days.

(b) Sum the total heat input to the unit in million British thermal units (MMBtu) during the current Unit Operating Day and the previous 29 Unit Operating Days.

(c) Divide the total number of pounds of NO_x emitted during the 30 Unit Operating Days by the total heat input during the 30 Unit Operating Days.

[Significant Revision #46236, Condition II.D.3.d]

(2) A new 30-day rolling average NO_x emission rate shall be calculated for each new Unit Operating Day. Each 30-day rolling average NO_x emission rate will include all emissions that occur during all periods within any Unit Operating Day, including emissions from startup, shutdown, and malfunction.

e. Determining the 365-Day Plant-Wide Rolling NO_x Emission Rate

(1) The 365-day plant-wide rolling NO_x emission rate shall be determined using CEMS, in accordance with the procedures specified in 40 CFR Part 75.

[Significant Revision #46236, Condition II.D.3.e(1)]

(2) The 365-day plant-wide rolling NO_x emission rate means the total number of tons of NO_x emitted from Units 1 and 2 during a 365-day period beginning on June 1, 2014, and continuing each day thereafter, and shall include all emissions during startup, shutdown, and malfunction, unless the malfunction is determined to be a Force Majeure event as defined in Section XIV of the EPA Consent Decree (Civil Action No. 2:08-cv-1479-JAT).

[Significant Revision #46236, Condition II.D.3.e(2)]

4. Reporting Requirements [A.A.C. R18-2-306.A.5.a]

The Permittee shall maintain records of the 30-day rolling average NO_x emission rate and the 365-day plant-wide rolling total. Summary records of these shall be submitted along with the Compliance certifications required in Condition VII of the Attachment "A". Detailed reports shall be made available, upon request, to Department inspectors in a reasonable time.

5. Permit Shield

Compliance with this Section shall be deemed compliance with 40 CFR 60.43(c), 40 CFR 60.44(a)(2), 40 CFR 60.44(a)(3), 40 CFR 60.44(b), 40 CFR 60.45(a), 40 CFR 60.45(g)(3), 40 CFR 75 Appendix "A" and "B", 40 CFR 75.10(d)(1), and Significant Revision #46236 Condition II.C.1.e through g., II.C.2.a through e., II.C.3.c through f.

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

F. Carbon Dioxide (CO_2)

1. Monitoring, Recordkeeping & Reporting Requirements

   a. Continuous Emissions Monitoring System (CEMS)

      The Permittee shall calibrate, maintain, and operate *a continuous emissions monitoring system for measuring carbon dioxide (CO_2) gas.*

      [40 CFR 60.45(a); A.A.C. R18-2-331.A.3.c]

      [Material Permit Conditions are defined by underline and italics]

   b. The continuous emission monitoring systems for CO_2 shall meet the following requirements:

      i. 40 CFR Part 75, Appendix A, Specification and Test Procedures

         (1) Installation and measurement location
         (2) Equipment specifications
         (3) Performance specifications
         (4) Data acquisition and handling systems
         (5) Calibration gas
         (6) Certifications tests and procedures
         (7) Calculations

      ii. 40 CFR Part 75, Appendix B, Quality Assurance and Quality Control Procedure

         (1) Quality control program
         (2) Frequency of testing

      iii. Data Reduction

         Permittee shall comply with the data reduction requirements of 40 CFR Part 75.10(d)(1).

2. Permit Shield

   Compliance with this Section shall be deemed compliance with 40 CFR 60.45(a), 40 CFR 75 Appendix "A" and "B", and 40 CFR 75.10(d)(1).

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

G. Sulfur Dioxide (SO_2)

1. Emission Limitations/Standards

a. Coal

i. Permittee shall not cause to be discharged into the atmosphere from the stack of each unit any gases which contain sulfur dioxide in excess of 340 nanograms per joule heat input (0.8 pounds per million Btu) derived from coal.

[A.A.C. R18-2-903.1]

ii. Beginning on January 1, 2012, for Unit 2, and continuing thereafter, the Permittee shall achieve and maintain a 30-day rolling average SO_2 removal efficiency of at least 95.0 percent or a 30-day rolling average SO_2 emission rate no greater than 0.080 lb/MMBtu.

[Significant Revision #46236, Condition II.F.d]

iii. Beginning on January 1, 2013, for Unit 1, and continuing thereafter, the Permittee shall achieve and maintain a 30-day rolling average SO_2 removal efficiency of at least 95.0 percent or a 30-day rolling average SO_2 emission rate no greater than 0.080 lb/MMBtu.

[Significant Revision #46236, Condition II.D.2.e]

b. Fuel Oil and Used Oil Fuel

i. Permittee shall not cause to be discharged into the atmosphere from the stack of each unit any gases which contain sulfur dioxide in excess of 340 nanograms per joule heat input (0.8 pounds per million Btu) derived from used oil fuel.

[40 CFR 60.43(a)(1)]

ii. Compliance shall be based on the total heat input from all fossil fuels burned, including gaseous fuels. [40 CFR 60.43(c)]

c. Excess Emissions

i. Excess emissions for Unit 1 and Unit 2 are defined as any three-hour period during which the average emissions (arithmetic average of three contiguous one-hour periods) of sulfur dioxide as measured by a continuous monitoring system exceeds the applicable standard in Conditions II.G.1 of this Attachment.

ii. Beginning January 1, 2012 for Unit 2 and beginning January 1, 2013 for Unit 1, excess emissions are defined as any 30-day rolling average emissions of sulfur dioxide as measured by a continuous monitoring system exceeds the applicable standard in Conditions II.G.1.a.ii. or II.G.1.a.iii of this Attachment.

2. Air Pollution Control Requirement

a. *Prior to the installation of FGD systems on Unit 1 and Unit 2, the Permittee shall at all times, including periods of startup, shutdown, and malfunction, to the extent practicable,* maintain, *and operate the Pullman Kellogg SO_2 scrubber in a manner consistent with good air pollution control practices for minimizing SO_2 emissions.*

[40 CFR 60.11(d) and A.A.C. R18-2-331.A.3.e]
[Material Permit Conditions are defined by underline and italics]

b. *No later than January 1, 2012, for Unit 2 and no later than January 1, 2013, for Unit 1, the Permittee shall install,* maintain, *and continuously operate the FGD system on each unit at all times that the unit it serves is in operation, consistent with the technological limitations, manufacturer's specifications, and good engineering and maintenance practices for the FGDs for minimizing emissions to the extent practicable.*

[Significant Revision #46236, Condition II.F.2.b;A.A.C. R18-2-306.A.2 and 331.A.3.d & e]
[Material Permit Conditions are defined by underline and italics]

3. Monitoring, Recordkeeping, & Reporting Requirements

a. *The Permittee shall calibrate,* maintain, and operate *continuous emissions monitoring system (CEMS) for measuring sulfur dioxide emissions.*

[40 CFR 60.45(a); A.A.C. R18-2-331.A.3.c]
[Material Permit Conditions are defined by underline and italics]

b. The CEMS for SO_2 shall meet the following requirements:

i. 40 CFR Part 75, Appendix A, Specification and Test Procedures

(1) Installation and measurement location
(2) Equipment specifications
(3) Performance specifications
(4) Data acquisition and handling systems
(5) Calibration gas
(6) Certifications tests and procedures
(7) Calculations

ii. 40 CFR Part 75, Appendix B, Quality Assurance and Quality Control Procedure

(1) Quality control program
(2) Frequency of testing

iii. The Permittee shall comply with the data reduction requirements of 40 CFR Part 75.10(d)(1).

iv. The Permittee shall comply with all applicable recordkeeping and reporting requirements of 40 CFR Part 75 Subparts F and G

respectively

c. Monitoring of SO_2 Emission Rate

The Permittee shall determine the 30-day rolling average SO_2 emission rate and the 30-day rolling average SO_2 removal efficiency for Unit 1 and Unit 2 using CEMS in accordance with the procedures of 40 CFR Part 75, with the following exceptions:

(1) SO_2 emissions data need not be bias adjusted.

(2) For any CEMS with a span less than 100 ppm, the calibration drift and out-of-control criteria in Procedure 1, Section 4.3 of 40 CFR Part 60 Appendix F shall apply in lieu of the low emitter specifications in 40 CFR Part 75, Appendix B, Section 2.1.

(3) For any CEMS with a span less than or equal to 30 ppm, the exemption from the 40 CFR Part 75 linearity check will not apply and either the 40 CFR Part 75 linearity check or the cylinder gas audit described in Procedure 1, Section 5.1.2 of 40 CFR Part 60, Appendix F shall be performed on a quarterly basis.

(4) An annual relative accuracy test audit shall meet, at a minimum, a relative accuracy of less than 20 percent or an accuracy of less than 0.016 lb/MMBtu (expressed as the difference between the monitor mean and the reference value mean).

(5) In lieu of installing an inlet flow monitor, the inlet pounds of SO_2 will be calculated as described in Condition II.G.3.d.i.(2).

[Significant Revision #46236, Condition II.F.3.b]

d. Determining the 30-Day Rolling Average SO_2 Removal Efficiency

i. If necessary, the Permittee shall calculate the 30-day rolling average SO_2 removal efficiency in accordance with the following procedure:

(1) Sum the total pounds of SO_2 emitted as measured at the outlet of the FGD system for the unit during the current Unit Operating Day and the previous 29 Unit Operating Days as measured at the outlet of the FGD system for that unit.

(2) Sum the total pounds of SO_2 delivered to the inlet of the FGD system for the unit during the current Unit Operating Day and the previous 29 Unit Operating Days as measured at the inlet to the FGD system for that unit (this shall be calculated by measuring the ratio of the lb/MMBtu SO_2 inlet to the lb/MMBtu SO_2 outlet and multiplying the outlet pounds of SO_2 by that ratio).

(3) Subtract the outlet SO_2 emissions calculated in Condition II.G.3.d.i.(1) from the inlet SO_2 emissions calculated in Condition II.G.3.d.i.(2).

(4) Divide the remainder calculated in Condition II.G.3.d.i.(3) by the inlet SO_2 emissions calculated in Condition II.G.3.d.i(2).

(5) Multiply the quotient calculated in Condition II.G.3.d.i(4) by 100 to express as a percentage of removal efficiency.

ii. A new 30-day rolling average SO_2 removal efficiency shall be calculated for each new Unit Operating Day and shall include all emissions that occur during all periods within each Unit Operating Day, including emissions from startup, shutdown, and malfunction.

[Significant Revision #46236, Condition II.F.3.c]

e. Determining the 30-Day Rolling Average SO_2 Emission Rate

[Significant Revision #46236, Condition II.F.3.d]

i. The Permittee shall calculate the 30-day rolling average SO_2 emission rate in accordance with the following procedure:

(a) Sum the total pounds of SO_2 emitted from each Unit during the current Unit Operating Day and the previous 29 Unit Operating Days.

(b) Sum the total heat input to each Unit in MMBtu during the current Unit Operating Day and the previous 29 Unit Operating Days.

(c) Divide the total number of pounds SO_2 emitted during the 30 Unit Operating Days by the total heat input during the 30 Unit Operating Days.

ii. A new 30-day rolling average SO_2 emission rate shall be calculated for each Unit Operating Day. Each 30-day rolling average SO_2 emission rate shall include all emissions that occur during all periods within any Unit Operating Day, including emissions from startup, shutdown, and malfunction.

f. Reporting Requirements

The Permittee shall maintain records of the SO_2 removal efficiency or SO_2 emission rate. These records shall be submitted along with the Compliance certifications required in Condition VII of the Attachment "A". These reports shall be made available, upon request, to Department inspectors in a reasonable time. [A.A.C. R18-2-306.A.5.a]

4. Permit Shield

Compliance with this Section shall be deemed compliance with 40 CFR 60.43(a)(1), 40 CFR 60.43(c), 40 CFR 60.45(a), 40 CFR 60.45(g)(2), 40 CFR 75 Subpart F and G, 40 CFR 75 Appendix "A" and "B", 40 CFR 75.10(d)(1), A.A.C. R18-2-903.1 and Significant Revision Permit #30732 Condition II.F.1.d,e; Condition II.F.2.a & b; Condition II.F.3]. [A.A.C. R18-2-325]

H. Carbon Monoxide (CO)

1. Emission Limitations/Standards

a. The Permittee shall not cause to be discharged into the atmosphere from the stack of each unit any gases which contain CO in excess of 0.50 lb/MMBtu on a 30-day rolling average, excluding periods of start-up, shutdown, and malfunction.

[A.A.C. R18-2-406.A.4]

b. The Permittee shall not cause to be discharged into the atmosphere from the stack of each unit any gases which contains CO in excess of 3.6 lb/MMBtu on a 1-hour average.

[A.A.C. R18-2-406.A.5]

2. Monitoring, Recordkeeping & Reporting Requirements

a. *Beginning on the earlier of 90 Unit Operating Days or 180 calendar days after the low-NOx burners are installed and commence operating on each unit, the Permittee shall calibrate*, maintain, and operate *continuous emission monitoring systems (CEMS) for measuring emissions of CO.*

[A.A.C. R18-2-331.A.3.c]
[Material Permit Conditions are defined by underline and italics]

b. *The Permittee shall calibrate*, maintain, and operate *continuous emissions monitoring system (CEMS) for measuring carbon monoxide emissions.*

[40 CFR 60.45(a); A.A.C. R18-2-331.A.3.c]
[Material Permit Conditions are defined by underline and italics]

c. The CEMS for CO shall meet the following requirements:

i. 40 CFR Part 60, Appendix B, Performance Specifications, Performance Specification 4, Specifications and Test Procedures for Carbon Monoxide Continuous Monitoring Systems in Stationary Sources.

ii. 40 CFR Part 60, Appendix F, Quality Assurance Procedures.

iii. The Permittee shall check the zero (or low-level value between 0 and 20 percent of span value) and span (50 to 100 percent of span value) calibration drifts at least once daily in accordance

with a written procedure. The zero and span shall, at a minimum, be adjusted whenever the 24-hour zero drift or 24-hour span drift exceeds two times the limits of the applicable performance specifications in 40 CFR Part 60 Appendix B. The system must allow the amount of excess zero and span drift to be recorded and quantified, whenever specified.

iv. Except for system breakdowns, repairs, calibration checks, and zero and span adjustments required under Condition II.H.2.c.iii, the Permittee shall operate the CO CEMS continuously and shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period.

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

d. Carbon Monoxide Excess Emissions

i. Excess emissions for Unit 1 and Unit 2 are defined as any 30 day period, excluding periods of start-up, shutdown and malfunction during which the average emissions of CO as measured by a continuous monitoring system exceeds the applicable standard in Conditions II.H.1 of this Attachment.

Excess emissions for Unit 1 and Unit 2 are defined as any one-hour period during which the average emissions of CO as measured by a continuous monitoring system exceeds the applicable standard in Conditions II.H.2 of this Attachment.

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

ii. The Permittee shall submit excess emissions and monitoring systems performance reports to the Director semiannually. All reports shall be submitted along with the compliance certifications required by Condition VII of Attachment "A". Written reports of excess emissions shall include the following information:

(1) The magnitude of excess emissions computed in accordance with 40 CFR 60.13(h), any conversion factor(s) used, the date and time of commencement and completion of each time period of excess emissions, and the process operating time during the reporting period.

(2) Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of Unit 1 and Unit 2, the nature and cause of any malfunction (if known), and the corrective action taken or preventive measures adopted.

(3) The date and time identifying each period during which the CO CEMS was inoperative, except for zero and span checks, and the nature of the system repairs or adjustments.

(4) When no excess emissions have occurred or the CO CEMS have not been inoperative, repaired, or adjusted, such information shall be stated in the report.

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

iii. The summary report form shall contain the information and be in the format shown in Figure 1 of 40 CFR 60.7(d) unless otherwise specified by the Director. One summary report form shall be submitted for CO emissions monitored at Unit 1 and Unit 2.

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

(1) If the total duration of excess emissions for the reporting period is less than 1 percent of the total operating time for the reporting period and CO CEMS downtime for the reporting period is less than 5 percent of the total operating time for the reporting period, only the summary report form shall be submitted and the excess emissions report described in 40 CFR 60.7(c) need not be submitted unless requested by the Department.

(2) If the total duration of excess emissions for the reporting period is 1 percent or greater of the total operating time for the reporting period or the total CO CEMS downtime for the reporting period is 5 percent or greater of the total operating time for the reporting period, the summary report form and the excess emission report described in 40 CFR 60.7 (c) shall both be submitted.

3. Permit Shield

Compliance with this Section shall be deemed compliance with Significant Revision # 46236 Condition II.G of Attachment "B".

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

I. Sulfuric Acid (H_2SO_4) Mist

1. Beginning on June 1, 2014, and continuing thereafter, the Permittee shall not cause to be discharged into the atmosphere from Unit 2 any gases which contain H_2SO_4 in excess of 0.012 lb/MMBtu, excluding periods of start-up, shutdown, and malfunction.

2. Within 180 days of commencement of operation of the SCR on Unit 2, the Permittee shall complete performance tests, conducted using EPA Conditional Test Method 13 (CTM-13) or an alternate test method, to determine if the H_2SO_4 emissions from Unit 2 are consistently less than or equal to 0.006 lb/MMBtu. If the Permittee requests an alternate test method, the Permittee must submit this request at least 60 days prior to commencing the test program. If the Permittee does not receive a response within 30 days of submitting such a request, the proposed alternative test method shall be considered to be approved by the Director and the Administrator. The Permittee must notify the Director and the

Administrator at least 30 days prior to commencing the test program and shall submit the test report to the Director and the Administrator within 60 days of completing the test program.

3. If the test report demonstrates that Unit 2 can consistently achieve an emission rate of 0.006 lb/MMBtu, including a compliance margin, then this will become the enforceable H_2SO_4 emission limit. This limit shall be effective on the date that the test report required in Condition II.I.2 is submitted to the Director and the Administrator. Subsequent H_2SO_4 performance tests shall be conducted annually thereafter.

4. H_2SO_4 Minimization Analysis

   a. If the test results from Condition II.I.2 demonstrate that Unit 2 emissions of H_2SO_4 exceed 0.006 lb/MMBtu, the Permittee shall prepare an H_2SO_4 minimization analysis that evaluates further options, including but not limited to reagent/sorbent injection, to reduce emissions to 0.005 lb/MMBtu or less while maintaining PM emissions within 80 percent of the limit set forth in Condition II.D.1.c. The minimization analysis will not be required to include an assessment or require the use of any additional PM control equipment. The Permittee shall:

      i. Submit the incremental minimization analysis within 30 days of submitting the test report required by Condition II.I.2;

      ii. Identify all available control technologies for reducing H_2SO_4 emissions;

      iii. Include an analysis of the filterable PM control effectiveness of the scrubber based on data available through stack test, PM CEMS, and the PM CEMS/PM correlation and RATA testing;

      iv. Include an evaluation of the energy, environmental, economic, and other impacts associated with each alternative technology and the benefit of reduced emissions that the technology would bring. For the purposes of this evaluation, it is presumed that hydrated lime injection is economically reasonable.

      v. Include a proposed emission limit and control technology configuration based on the above evaluation. Any new control technology required by the minimization analysis would be installed as soon as practicable, but no later than 2 years after the Director issues an installation permit unless the Director agrees to a longer implementation schedule.

   b. The Director will assess and determine an appropriate H_2SO_4 emission limit based on the test results collected during the testing program required by Condition II.I.2 and the minimization analysis. The

assessment will take into consideration the statistical variability of the test results, the different coal supplies utilized at the facility during the test period, and will include a reasonable margin of safety for compliance with both the PM and the H_2SO_4 emission limits.

c. The new limit will become effective upon issuance of a final significant revision to the Permittee's operating permit, which incorporates the new H_2SO_4 emission limit. Permittee shall submit a significant revision application within 30 days of the Director's determination to incorporate the new limits into the permit. [A.A.C. R18-2-406.A.4]

5. Permit Shield [A.A.C. R18-2-325]

Compliance with this Section shall be deemed compliance with Significant Revision # 46236 Condition II.H of Attachment "B".

J. Surrender of SO_2 Allowances

1. For the purposes of this section, "surrender" means, with regard to SO_2 Allowances, permanently surrendering so that such SO_2 Allowances can never be used to meet any compliance requirement under the Clean Air Act or the Arizona SIP. [Significant Revision #46236, Condition II.I.1]

2. Except as provided in II.J.9, the Permittee shall not sell, trade, or transfer any SO_2 Allowances allocated to CGS that would otherwise be available for sale, trade, or transfer as a result of the actions taken by the Permittee to comply with the requirements of this Permit. [Significant Revision #46236, Condition II.I.2]

3. Beginning with calendar year 2012, the Permittee shall surrender to EPA, or transfer to a non-profit third party selected by the Permittee for purposes of surrender, all SO_2 Allowances that have been allocated to CGS in excess of the amount needed to meet its own federal and/or state Clean Air Act regulatory requirements at CGS and Springerville Unit 4, which is located at the Springerville Generating Station. [Significant Revision #46236, Condition II.I.3]

4. If the Permittee commences operation of one or more new coal-fired units that it owns in whole or in part in the Western Electricity Coordinating Council Region no earlier than five years and no later than fourteen years from the date the Consent Decree (Civil Action No. 2:08-cv-1479-JAT) is entered by the Court, then the Permittee may also use SO_2 Allowances, as limited by this condition, allocated to CGS to meet the federal and/or state Clean Air Act regulatory requirements for certain SO_2 emissions from such new coal-fired unit(s).

a. The Permittee may only use such SO_2 Allowances pursuant to this condition if such new coal-fired unit(s) is equipped with the Best Available Control Technology (if the new coal-fired unit(s) will be emitting any of the pollutants set forth at 40 CFR 52.21(b)(50) and the new coal-fired unit(s) will be located in an attainment area for those pollutants) and/or the Lowest Achievable Emission Rate (if the new coal-fired unit(s) will be emitting any of the pollutants set forth at 40 CFR

51.165(a)(xxxvii) and the new coal-fired unit(s) will be located in a nonattainment area for those pollutants).

b. The Permittee may only use SO_2 Allowances for the SO_2 emissions associated with a total of 400 megawatts that it owns at such new coal-fired unit(s), whether at one new coal-fired unit (e.g., the Permittee owns a total of at least 400 MW at one new coal-fired unit) or in the aggregate at multiple new coal-fired units (e.g., the Permittee owns 100 MW at four new coal-fired units for an aggregate total of 400 MW).

c. To determine the number of SO_2 Allowances the Permittee may use pursuant to this condition, the Permittee may use no more than the number of SO_2 Allowances that cover the same percentage of total SO_2 emissions from such new coal-fired unit(s) as the percentage of the Permittee's ownership in such new coal-fired unit(s), on a MW basis. Thus, for example, if the Permittee owns 400 MW of a new 800 MW coal-fired unit that otherwise meets the requirements of this condition, the Permittee may use excess SO_2 Allowances allocated to CGS to cover no more than fifty percent of the total SO_2 emissions from such new coal-fired unit. This reduction in the amount of SO_2 Allowances surrendered by or on behalf of the Permittee would start with the year this new unit(s) commences operation.

[Significant Revision #46236, Condition II.I.4]

5. The Permittee shall make its surrender of SO_2 Allowances, annually, within forty-five days of its receipt from EPA of the Annual Deduction Reports for SO_2. Any surrender need not include the specific SO_2 Allowances that were allocated to CGS, so long as the Permittee surrenders SO_2 Allowances that are from the same year and that are equal to the number required to be surrendered under Condition II.J.

[Significant Revision #46236, Condition II.I.5]

6. If any SO_2 Allowances are transferred directly to a non-profit third party for surrender to EPA, the Permittee shall include a description of such transfer in the next report submitted to EPA pursuant to Section XI (Periodic Reporting) of the Consent Decree (Civil Action No. 2:08-cv-1479-JAT). Such report shall:

a. Provide the identity of the non-profit third-party recipient(s) of the SO_2 Allowances and a listing of the serial numbers of the transferred SO_2 Allowances; and

b. Include a certification by the non-profit third-party recipient(s) stating that the recipient(s) will not sell, trade, or otherwise exchange any of the SO_2 Allowances and will not use any of the SO_2 Allowances to meet any obligation imposed by any environmental law.

[Significant Revision #46236, Condition II.I.6]

7. No later than the third periodic report due after the transfer of any SO_2 Allowances, the Permittee shall include a statement that the non-profit third-party recipient(s) surrendered the SO_2 Allowances for permanent surrender to EPA in accordance with the provisions of II.J.8 within 1 year after the Permittee

transferred the SO_2 Allowances to them. The Permittee shall not have complied with the SO_2 Allowance surrender requirements of Condition II.J until all non-profit third-party recipient(s) shall have actually surrendered the transferred SO_2 Allowances to EPA.

[Significant Revision #46236, Condition II.I.7]

8. For all SO_2 Allowances surrendered to EPA, the Permittee or the non-profit third-party recipient(s) (as the case may be) shall first submit an SO_2 Allowance transfer request form to EPA's Office of Air and Radiation's Clean Air Markets Division directing the transfer of such SO_2 Allowances to the EPA Enforcement Surrender Account or to any other EPA account that EPA may direct in writing. As part of submitting these transfer requests, the Permittee or the non-profit third-party recipient(s) shall irrevocably authorize the transfer of these SO_2 Allowances and identify – by name of account and any applicable serial or other identification numbers or station names – the source and location of the SO_2 Allowances being surrendered. [Significant Revision #46236, Condition II.I.8]

9. Provided that the Permittee is in compliance with the SO_2 emission limitations established in Conditions II.G.1.a.ii and II.G.1.a.iii, nothing shall preclude the Permittee from using, selling, or transferring Super-Compliance SO_2 Allowances that may arise as a result of achieving and maintaining SO_2 emission rates or removal efficiencies at Unit 1 and Unit 2 below the emission limits required in Conditions II.G.1.a.ii and II.G.1.a.iii, so long as the Permittee timely reports the generation of such Super-Compliant SO_2 Allowances in accordance with Section XI (Periodic Reporting) of the Consent Decree (Civil Action No. 2:08-cv-1479-JAT).

[Significant Revision #46236, Condition II.I.9]

10. The Permittee shall not use SO_2 Allowances to comply with any requirement of the Permit, including by claiming compliance with any emission limitation required by the Permit by using, tendering, or otherwise applying SO_2 Allowances to offset any excess emissions (i.e., emissions above the limits specified in Conditions II.G.1.a.ii and II.G.1.a.iii).

[Significant Revision #46236, Condition II.I.10]

11. Nothing in this Section shall prevent the Permittee from purchasing or otherwise obtaining SO_2 Allowances from another source for purposes of complying with state or federal Clean Air Act requirements to the extent otherwise allowed by law. [Significant Revision #46236, Condition II.I.11]

12. Permit Shield [A.A.C. R18-2-325]

Compliance with this Section shall be deemed compliance with Significant Revision # 46236 Condition II.I of Attachment "B".

K. Mercury Emissions Control

[State Enforceable Only]
[Consent Order #A-17-09, & A.A.C. R 18-2-306.A.2]

1. The State Standards of Performance for Mercury Emissions from Coal-Fired Electric Steam Generating Units set forth in A.A.C. R18-2-734 shall not be apply to the Permittee until December 31, 2015.

2. The Permittee shall implement the Operation and Maintenance (O&M) plan specified in Condition II.K.3 at all times beginning on January 1, 2012, and continue until December 31, 2015. The O&M plan does not impose any enforceable mercury emission limitations or require any commitments to achieve any mercury emission reductions.

3. Mercury Control Strategy O&M Plan

[A.A.C. R 18-2-306.A.2, 306.A.3.c, and 331.A.3.c]
[Material Permit Conditions is defined by underline and italic]

a. On or before January 1, 2012, *the Permittee shall install*, maintain, *and operate on Unit 1 and Unit 2, mercury control technology by injecting a chemical oxidizer in the feed coal, designed to achieve a minimum of 70 percent reduction of total inlet mercury on a facility-wide annual basis* where "inlet mercury" means the average concentration of mercury in coal burned at the CGS facility, as determined by ASTM methods, EPA approved methods or an alternative method approved by the Director.

[A.A.C. R 18-2-331]

b. To the extent possible the Permittee shall, at all times after January 1, 2012, and until December 31, 2015, ensure that the mercury control system is operational when coal is combusted in Unit 1 and Unit 2.

[A.A.C. R 18-2-306.A.2]

c. The Permittee shall feed the chemical oxidizer at a rate that is within the range established in accordance with Condition II.K.4.l. In the event that the rate of feeding of chemical oxidizer decreases below the minimum injection rates determined by Condition II.K.4.l, the Permittee shall submit a permit deviation report in accordance with Condition XII of Attachment "A".

[A.A.C. R 18-2-306.A.2]

d. In the event of change of the chemical oxidizer, the Permittee shall re-establish the range of injection rates of the new chemical oxidizer to achieve 70 percent reduction as per Condition II.K.4.l.

[A.A.C. R 18-2-306.A.2]

e. In order to minimize the effect of emissions of entrained mercury from the wet scrubbers, the Permittee may inject one or more chemical additives to the scrubbers.

[A.A.C. R 18-2-306.A.2]

f. *The Permittee shall install* and operate *a flow meter or an equivalent device to measure the chemical oxidizer feed rate.*

[A.A.C. R 18-2-306.A.2]

g. The Permittee shall monitor the instantaneous volumetric flow rate of the chemical oxidizer once every twelve hours.

[A.A.C. R 18-2-306.A.3.c]

h. The Permittee shall monitor the operation of chemical oxidizer feed pumps once every twelve hours when coal is combusted in the boilers.

[A.A.C. R 18-2-306.A.3.c]

i. The Permittee shall monitor the chemical oxidizer solution tank level once every twelve hours when coal is combusted in the boilers.
[A.A.C. R 18-2-306.A.3.c]

j. The Permittee shall maintain vendor documentation showing quality (concentration of chemical oxidizer) of each delivery of the reagent.
[A.A.C. R 18-2-306.A.3.c]

k. The Permittee shall maintain an adequate inventory of chemical oxidizer solution to support continuous feed.
[A.A.C. R 18-2-306.A.3.c]

l. The Permittee shall maintain an inventory of critical spare parts for the chemical oxidizer feed pumps on site.
[A.A.C. R 18-2-306.A.3.c]

m. The Permittee shall follow maintenance requirements according to the frequency indicated below:

Equipment	Maintenance Activity	Frequency
Distribution header	Inspect for plugging	Once per operating week
Strainers	Clean strainers	Once per operating week
	Replace gaskets	Annually
Metering pumps	Calibrate	Annually
Storage tank	Drain and inspect	Annually
Pressure gauges	Calibrate	Annually
Distribution piping	Visual inspection for defects	Annually

[A.A.C. R 18-2-306.A.3.c]

4. Monitoring, Recordkeeping, and Reporting for O & M Plan
[A.A.C. R18-2-306.A.3.c and -331.A.3.c]
[Material Permit Conditions are indicated by underline and italics]

In order to demonstrate proper operation of the mercury control technology, the Permittee shall implement the following monitoring, recordkeeping, and reporting measures:

a. Perform coal analysis to determine the concentration of mercury in pounds per ton of coal from a representative sample of coal delivered to the facility. As an alternative to performing the coal analysis, data from the coal supplier may be used. The data shall be logged and averaged on a monthly basis. The monthly average inlet mercury concentration will be multiplied by the total monthly coal feed rate to determine a monthly inlet mercury mass.

b. Monitor and record the rate of chemical oxidizer solution feed to the coal

feed during operation of the Unit 1 and Unit 2 once every twelve hours.

c. *Install* and maintain *the mercury sorbent trap system in the stack of each unit in accordance with vendor specifications.*

d. Sample the stack gas at a rate proportional to the stack gas volumetric flow rate. The Permittee shall, by using the sample volume measured by the dry gas meter and the result of the analyses of the sorbent traps, determine the average mercury concentration in the stack gas in units of micrograms per dry standard cubic meter.

e. Analyze the sorbent traps on-site or at a qualified off-site laboratory using an Ohio-Lumex desorption analyzer. When an appropriate protocol is provided by EPA, the Permittee shall calibrate the analyzer by using National Institute of Standards and Technology (NIST) traceable mercury standards.

f. Calculate the mercury outlet mass emissions for each hour by using the average mercury concentration for that period, in conjunction with hourly measurement of the stack flow rate, corrected for the stack gas moisture content.

g. A monthly outlet mercury mass will be calculated by summing the mercury emission rates determined for each hour.

h. At the end of every month, calculate and record monthly facility-wide mercury reduction based on inlet and outlet mercury data from Conditions II.K.4.a and II.K.4.f above.

i. Report facility-wide annual mercury removal percentage by January 31st of each year and shall contain the results for the preceding year. The first report for the calendar year 2012 shall be submitted by January 31, 2013.

j. Keep records of the monitoring conditions pursuant to Condition II.K3.g, h, and i.

k. The Permittee shall conduct the annual certification of the monitoring systems in accordance with the applicable Quality Assurance/Quality Control (QA/QC) standard in effect at the time of certification.

l. Within 30 days of January 1, 2012 (the date on which the O & M Plan becomes enforceable) and within 30 days of change of chemical oxidant, the Permittee shall notify the Director with the following information:

   i. Name and composition of the chemical oxidizer;
   ii. Range of injection rates of the chemical oxidizer necessary to target a design mercury reduction of 70 percent; and
   iii. Documentation of any pilot-scale tests demonstrating the efficacy of the alternative chemical oxidizers, as applicable.

L. Application for Significant Permit Revision incorporating State Mercury Standards

[Significant Permit Revision #46236 Condition II.K]

The Permittee shall submit an application for a significant permit revision pursuant to A.A.C. R 18-2-734 (F) by no later than January 1, 2014, and to include the following elements:

1. The State Mercury Standard and any amendments adopted by ADEQ to ensure that the State Mercury Standard is compatible with a MACT standard promulgated by EPA.

2. A control strategy for meeting the State Mercury Standard and any amendments thereto;

3. A demonstration that the control strategy is designed to meet the State Mercury Standard and any amendment thereto;

4. A proposal to comply with the State Mercury Standard by December 31, 2015, except as provided in A.A.C. R 18-2-734 (H), under the following conditions:

    a. For the purposes of applying exception established in A.A.C. R 18-2-734 (H), each date specified in that provision shall be increased by three calendar years;

    b. The exception in A.A.C. R 18-2-734 (G) shall not apply.

III. AUXILIARY BOILER

A. Applicability

This section applies to the Auxiliary Boiler as described in Attachment "C" of this permit.

B. Fuel and Operational Requirements

1. Permittee shall burn only Number 2 fuel oil and used oil in the auxiliary boiler. [A.A.C. R18-2-302.A.2]

2. Permittee shall not fire high sulfur oil (fuel sulfur content 0.9% by weight) as a fuel unless the Permittee demonstrates to the satisfaction of the Director that sufficient quantities of low sulfur oil are not available for use by the source and that it has adequate facilities and contingency plans to insure that the sulfur dioxide ambient air quality standards set forth in A.A.C. R18-2-202 will not be violated. [A.A.C. R18-2-724.G]

3. *Permittee shall not operate the auxiliary boiler at an annual average capacity factor greater than 10%.* The annual average capacity factor shall be defined as ratio between the actual heat input to the auxiliary boiler from the fuels burning during a calendar year, and the potential heat input to the auxiliary boiler had it been operating for 8,760 hours during a year at the maximum steady state design heat input capacity.

4. Monitoring, Reporting, and Recordkeeping

a. Permittee shall maintain records of the daily fuel usage for the auxiliary boiler. [A.A.C. R18-2-306.A.3.c]

b. At the end of each calendar year, the Permittee shall calculate and record the heat input in million Btu per year and the annual capacity factor. [A.A.C. R18-2-306.A.3.c]

c. Permittee shall keep on record the contractual agreement with the liquid fuel vendor indicating the following information concerning the liquid fuel being fired for each shipment of fuel oil:

i. The name of the fuel oil supplier;
ii. The heating value of the fuel oil;
iii. The density of the fuel oil;
iv. The ash content of the fuel oil;
v. The sulfur content of the fuel oil from which the shipment came;
vi. The method used to determine the ash content of the fuel oil; and
vii. The method used to determine the sulfur content of the fuel oil.

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

d. The Permittee shall notify the Director within 30 days of any change in the contractual agreement. [A.A.C. R18-2-306.A.3.c]

5. Permit Shield

Compliance with this Section shall be deemed compliance with A.A.C. R18-2-724.G, and Permit #30732, Attachment B, Condition I.B.2. [A.A.C. R18-2-325]

C. Particulate Matter and Opacity

1. Emission Limitations/Standards

a. Particulate Matter & Opacity

Permittee shall not cause, allow or permit the emission of particulate matter, caused by combustion of fuel, from the auxiliary boiler in excess of the amount calculated by the following equation:

$E = 1.02\ Q^{0.769}$

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

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

For the purposes of condition III.C.1.a of this Attachment, heat input is defined as the aggregate heat content of all fuels whose products of combustion pass through a stack or other outlet.

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

b. Permittee shall not cause, allow or permit to be emitted into the atmosphere from the auxiliary boiler, smoke which exceeds 15 percent opacity measured in accordance with EPA Reference Method 9.

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

2. Monitoring, Recordkeeping & Reporting

a. Permittee shall report all six-minute periods in which the opacity of any plume or effluent exceeds 15 percent from the auxiliary boiler.

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

b. Permittee shall conduct weekly opacity monitoring of visible emissions. If the opacity of the emissions observed appears to exceed the relevant opacity standard, the observer shall conduct a certified EPA Reference Method 9 observation. The Permittee shall keep records of the initial survey and any EPA Reference Method 9 observations performed. These records shall include the emission point observed, location of observer, name of observer, date and time of observation, and the results of the observation. If the observation shows a Method 9 opacity reading in excess of the relevant opacity standard, the Permittee shall initiate appropriate corrective action to reduce the opacity below the standard. The Permittee shall keep a record of the corrective action performed.

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

3. Permit Shield

Compliance with this Section shall be deemed compliance with A.A.C. R18-2-724.B, A.A.C. R18-2-724, A.A.C. R18-2-724.C.1, A.A.C. R18-2-724.J, and Operating Permit #30732 Condition III.B.1.

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

D. Sulfur Dioxide

1. Emission Limitations/Standards

a. Permittee shall not cause, allow, or permit emission of more than 1.0 pounds of sulfur dioxide per million Btu heat input.

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

b. For the purposes of Condition III.D.1.a of this Attachment, “heat input” is defined as the aggregate heat content of all fuels whose products of combustion pass through a stack or other outlet.

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

2. Permit Shield

Compliance with this Section shall be deemed compliance with A.A.C. R18-2-724.B, and A.A.C. R18-2-724.E. [A.A.C. R18-2-325]

IV. INTERNAL COMBUSTION ENGINES (ICE)

A. Applicability

This section applies to the emergency generator identified in Attachment "C" of this permit.

B. Operational Limitation

1. Permittee shall only burn diesel fuel in the ICE located at the facility.
[A.A.C. R18-2-306.A.2]

2. The Permittee shall record the hours of operation of the emergency generator and at the end of each month calculate and record a 12 month rolling total.
[A.A.C. R18-2-306.A.3]

C. Existing Source Requirements

1. Particulate Matter and Opacity

a. Emissions Limitations/Standards

i. The Permittee shall not cause or allow to be discharged into the atmosphere from the internal combustion engines any gases in which exhibit greater than 40% opacity.
[A.A.C. R18-2-719.E]

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

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

where:
E = the maximum allowable particulate emissions rate in pounds-mass per hour
Q = the heat input in million BTU per hour.
[A.A.C. R18-2-719.C.1]

iii. For the purposes of Condition IV.C.1.b above, the heat input shall be the aggregate heat content of all fuels whose products of combustion pass through a stack or other outlet. Compliance tests shall be conducted during operation at the normal rated capacity of each unit. The total heat input of all operation generators and internal combustion engines on a plant or premises shall be used for determining the maximum allowable amount of particulate matter which may be emitted.
[A.A.C. R18-2-719.B]

b. Monitoring, Recordkeeping and Reporting Requirements

i. The Permittee shall monitor the lower heating value of the fuel being combusted in the internal combustion engines. The Permittee shall maintain records of the lower heating value of the fuel fired in the internal combustion engines. This may be accomplished by maintaining on record a copy of fuel supplier certifications that specify the lower heating value of the fuel.
[A.A.C. R18-2-306.A.3.c and A.A.C. R18-2-719.I]

ii. For the internal combustion engines listed in Attachment "C", Permittee shall conduct opacity monitoring in accordance with Condition I.B of this Attachment while the engine is in operation.
[A.A.C. R18-2-306.A.3.c]

c. Permit Shield

Compliance with the conditions of this Section shall be deemed compliance with A.A.C. R18-2-719.B, A.A.C. R18-2-719.C.1, A.A.C. R18-2-719.E and A.A.C. R18-2-719.I.
[A.A.C. R18-2-325]

2. Sulfur Dioxide

a. Emissions Limitations/Standards

The Permittee shall not burn high sulfur fuel only fuel which limits the emission of sulfur dioxide to 1.0 pound per million Btu heat input.
[A.A.C. R18-2-719.F and H]

b. Monitoring, Recordkeeping and Reporting Requirements

i. The Permittee shall monitor the sulfur content of the fuel being combusted in the internal combustion engines. The Permittee shall maintain records of the daily sulfur content and lower heating value of the fuel fired in the internal combustion engines. This may be accomplished by maintaining on record a copy of fuel supplier certifications that specify the sulfur content and lower heating value of the fuel.
[A.A.C. R18-2-306.A.3.c and A.A.C. R18-2-719.I]

ii. The Permittee shall report to the Director any daily period during which the sulfur content of the fuel being fired in the machine exceeds 0.8%.
[A.A.C. R18-2-719.J and 306.A.3]

c. Permit Shield

Compliance with the conditions of this Section shall be deemed compliance with A.A.C. R18-2-719.I, A.A.C. R18-2-719.J, A.A.C. R18-2-719.H, and A.A.C. R18-2-719.F. [A.A.C. R18-2-325]

D. National Emissions Standards for Hazardous Air Pollutants (NESHAP) Requirements for Engines Less than 500 Horsepower

1. Applicability

a. This section is applicable to the emergency fire pump engine identified in Attachment "C".

b. The requirements of Condition IV.D shall become effective on May 3, 2013.

2. Operating Requirements [40 CFR 63.6605]

a. The Permittee shall operate and maintain the emergency fire pump engine and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the Permittee to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator and the Director which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. [40 CFR 63.6605(b)]

b. The Permittee shall minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup in Table 2c to 40 CFR Part 63 subpart ZZZZ apply.

c. The Permittee shall operate each ICE according to the requirements in following paragraphs IV.D.2.c.i and IV.D.2.c.ii of this section. If the engine is not operated according to the requirements in paragraphs IV.D.2.c.i and IV.D.2.c.ii of this Condition, the engine will not be considered an emergency engine and shall meet all requirements for non-emergency engines. [40 CFR 63.6640 (f)]

i. The Permittee may operate the emergency engines for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State, or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of the engine is limited to no more than 100 hours per year. The Permittee may petition the Administrator and the Director for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the Permittee maintains records indicating that the Federal, State, or local standards require maintenance and testing beyond 100 hours per year. Copies of records shall be made

available to ADEQ upon request.

ii. The Permittee may operate the emergency engines for up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity; except that the Permittee may operate the emergency engine for a maximum of 15 hours per year as part of a demand response program if the regional transmission organization or equivalent balancing authority and transmission operator has determined there are emergency conditions that could lead to a potential electrical blackout, such as unusually low frequency, equipment overload, capacity or energy deficiency, or unacceptable voltage level. The engine may not be operated for more than 30 minutes prior to the time when the emergency condition is expected to occur, and the engine operation must be terminated immediately after the facility is notified that the emergency condition is no longer imminent. The 15 hours per year of demand response operation are counted as part of the 50 hours of operation per year provided for non-emergency situations. The supply of emergency power to another entity or entities pursuant to financial arrangement is not limited by this paragraph, as long as the power provided by the financial arrangement is limited to emergency power.

e. *The Permittee shall install a non-resettable hour meter on the emergency fire pump engine.*

[40 CFR 63.6625(f), R18-2-331.A.3.a]
[Material Permit Conditions are indicated by underline and italics]

f. The Permittee shall change oil and filter every 500 hours of operation or annually, whichever comes first. If the Permittee prefers to extend the oil change requirement, an oil analysis program as described in 40 CFR 63.6625(i) shall be completed.

[40 CFR 63.6603(a); Table 2d of Subpart ZZZZ; 63.6625(i)]

g. The Permittee shall inspect air cleaner every 1,000 hours of operation or annually, whichever comes first;

[40 CFR 63.6603(a); Table 2d of Subpart ZZZZ]

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

[40 CFR 63.6603(a); Table 2d of Subpart ZZZZ]

i. The Permittee shall operate and maintain the emergency fire pump engine according to the manufacturer's emission-related written instructions or develop a maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for

minimizing emissions. [40 CFR 63.6625(e)].

3. Recordkeeping Requirements

a. The Permittee shall keep records of the hours of operation of each emergency engine that is recorded through the non-resettable hour meter. Records shall include the date, start and stop times, hours spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. [40 CFR 63.6655(f)]

b. If the Permittee elects to implement the oil analysis program described in 40 CFR 63.6625(i), the Permittee shall keep records of the parameters that are analyzed and the results of the oil analysis and the oil changes for the engine. [40 CFR 63.6625(i)]

c. The Permittee shall keep records of the maintenance conducted on the emergency fire pump that demonstrates operation and maintenance in accordance with the maintenance plan. [40 CFR 63.6655(e)]

d. The Permittee shall document the hours 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)]

4. Permit Shield

Compliance with the conditions of this Section shall be deemed compliance with 40 CFR Part 63.6605(b); 63.6640(f); 63.6625(i) & (f); 63.6603(a), 63.6655(e) & (f), Table 2d of 40 CFR subpart ZZZZ, 63.6655. [A.A.C. R18-2-325]

V. COAL HANDLING

A. Applicability

This section applies to the Coal Handling and the Coal Mixing systems as described in Attachment "C" of this permit.

B. Opacity

1. Emission Limitations/Standards

The Permittee shall not cause to be discharged into the atmosphere from any coal processing and conveying equipment including breakers and crushers, coal storage systems, and coal transfer and loading systems, any emissions greater than 20 percent opacity. [A.A.C. R18-2-702.B.3]

2. Monitoring, Recordkeeping & Reporting [A.A.C. R18-2-306.A.3.c]

Permittee shall conduct opacity monitoring in accordance with Condition I.E of this Attachment. This weekly survey shall include observation of all exposed transfer points, enclosed transfer points, the coal storage pile, and baghouses.

3. Permit Shield

Compliance with this section shall be deemed compliance with 702.B.
[A.A.C. R18-2-325]

C. Particulate Matter

1. Emission Limitations/Standards

a. Permittee shall not cause, allow or permit the discharge of particulate matter into the atmosphere in any one hour from any coal handling operation in total quantities in excess of the amounts calculated by the following equation:

$$E = 55.0\ P^{0.11} - 40$$

Where:

E = the maximum allowable particulate emissions rate in pounds-mass per hour.
P = the process weight rate in tons-mass per hour. The total process weight from all similar units employing a similar type process shall be used in determining the maximum allowable emission of particulate matter.
[A.A.C. R18-2-716.B.2]

b. The total process weight rate from all similar units employing a similar type process shall be used in determining the maximum allowable emission of particulate matter. [A.A.C. R18-2-716.B.2]

2. Air Pollution Controls

When the coal handling and mixing system is operational, Permittee shall maintain and *operate the appropriate baghouses used to capture particulate matter emissions associated with coal handling in accordance with manufacturer's specification and in a manner consistent with good air pollution control practices. Wet dust suppression shall be maintained and operated at the rotary car dumper during train unloading, at conveyor transfer points in the yard area, and at the stacking-reclaiming area.* [A.A.C. R18-2-306.A.2 and 331.A.3.e]
[Material Permit Conditions are defined by underline and italics]

3. Monitoring, Recordkeeping & Reporting

a. The manufacturer's specifications shall be on file and shall be readily

available for inspection by the Department. [A.A.C. R18-2-306.A.2]

b. Permittee shall maintain records of emissions related maintenance performed on the baghouses. [A.A.C. R18-2-306.A.3.c]

4. Permit Shield

Compliance with this Section shall be deemed compliance with A.A.C R18-2-716.E, A.A.C. R18-2-716.B, and A.A.C. R18-2-716.D. [A.A.C. R18-2-325]

VI. LIMESTONE HANDLING

A. Applicability

This Section applies to the Upgraded Belt Conveyors (BC-101, BC101A), New Belt Conveyors (BC-101B and B), Upgraded Transfer Tower (TT-1), New Transfer Tower (TT-2), New Limestone Storage Bins A, B, & C, Wet Dust Extractors (DC-12 and DC-13), and Bin Vent Dust Collectors (DC-14, DC-15, and DC-16) in the Limestone Handling Plant.

B. Particulate Matter and Opacity

1. Emission Limitations/Standards

a. Particulate Matter

i. The Permittee shall not cause to be discharged into the atmosphere from any transfer point on belt conveyors or from any other affected facility any stack emissions (DC-12 and DC-13) that contain PM in excess of 0.032 grams per dry standard cubic meter (0.014 gr/dscf)**.** Bin vent filters (DC-14, DC-15, and DC-16) are exempt from this PM stack limit since these individually control emissions from the associated storage bin.
[40 CFR 60.672(a) & 60.672 (f)]

ii. The Permittee shall not cause to be discharged into the atmosphere from DC-12, DC-13, DC-14, DC-15, and DC-16 any stack emissions that contain filterable PM/PM_{10} in excess of 0.005 grains per actual cubic feet.
[A.A.C. R18-2-406.A.4]

b. Opacity

i. *The Permittee shall not cause to be discharged into the atmosphere from any storage bin any stack emissions that exhibit opacity greater than 7 percent opacity.*
[40 CFR 60.672(a) and A.A.C. R18-2-331.A.3.f]
[Material Permit Conditions is defined by underline and italics]

ii. *On and after the sixtieth day after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup as required under 40 CFR §60.11, the Permittee shall not cause to be discharged*

into the atmosphere from any transfer point on belt conveyors or from any other affected facility any fugitive emissions which exhibit opacity greater than 7 percent.

[40 CFR 60.672(b) and A.A.C. R 18-2-331.A.3.f]
[Material Permit Conditions is defined by underline and italics]

2. Air Pollution Control Equipment

At all times, including periods of startup, shutdown, and malfunction, the Permittee shall, to the extent practicable, install, maintain, and *operate Wet Dust Extractors {DC-12 on Transfer Tower (TT-1), DC-13 on Transfer Tower (TT-2)}, and Bin Vent Filters (DC-14,DC-15, and DC-16 on Limestone Storage Bins A, B, & C) in a manner consistent with good air pollution control practice for minimizing PM emissions.*

[40 CFR 60.11(d), A.A.C. R 18-2-306.01.A and -331.A.3.d & e]
[Material Permit Conditions are defined by underline and italics]

3. Monitoring Requirements

a. *The Permittee shall install, calibrate, maintain,* and operate *the following monitoring devices on the wet dust extractors (DC-12 and DC-13):*

i. *A device for the continuous measurement of the pressure loss of the gas stream through the scrubber. The monitoring device must be certified by the manufacturer to be accurate within ±250 pascals ±1 inch water gauge pressure and must be calibrated on an annual basis in accordance with manufacturer's instructions.*

ii. *A device for the continuous measurement of the scrubbing liquid flow rate to the wet scrubber. The monitoring device must be certified by the manufacturer to be accurate within ±5 percent of design scrubbing liquid flow rate and must be calibrated on an annual basis in accordance with manufacturer's instructions*

[A.A.C. R 18-2-331.A.3.c and 40 CFR 60.674(a)]
[Material Permit Conditions are defined by underline and italics]

b. The Permittee shall conduct quarterly 30-minute visible emissions inspections using EPA Method 22 (40 CFR part 60, Appendix A-7) on the Bin Vent Dust Collectors (DC-14, DC-15, and DC-16). The Method 22 (40 CFR part 60, Appendix A-7) test shall be conducted while the baghouse is operating. The test is successful if no visible emissions are observed. If any visible emissions are observed, the owner or operator of the affected facility must initiate corrective action within 24 hours to return the baghouse to normal operation. The owner or operator must record each Method 22 (40 CFR part 60, Appendix A-7) test, including the date and any corrective actions taken, in the logbook required under Condition VI.B.4.a.

[40 CFR 60.674(c)]

4. Recordkeeping and Reporting Requirements

a. The Permittee shall record each periodic inspection required under Condition VI.B.3.b, including dates and any corrective actions taken, in a

logbook (in written or electronic format). The Permittee shall keep the logbook onsite and make hard or electronic copies available to the Administrator upon request.

[40 CFR 60.676(b)]

b. During the initial performance test of the wet dust extractors (DC-12 and DC-13), and daily thereafter, the owner or operator shall record the measurements of both the change in pressure of the gas stream across the scrubber and the scrubbing liquid flow rate.

[40 CFR 60.676(c)]

c. After the initial performance test of the wet dust extractors (DC-12 and DC-13), the owner or operator shall submit semiannual reports to the Administrator of occurrences when the measurements of the scrubber pressure loss and liquid flow rate decrease by more than 30 percent from the average determined during the most recent performance test.

[40 CFR 60.676(d)]

d. The reports required under Condition VI.B.4.c shall be postmarked within thirty days following end of second and fourth calendar quarters.

[40 CFR 60.676(e)]

e. The Permittee shall submit written reports of the results of all performance tests conducted to demonstrate compliance with the emission limit in Condition VI.B.1.a.i, including reports of opacity observations made using Method 9 to demonstrate compliance with Condition VI.B.1.b.i.

[40 CFR 60.676(f)]

5. Notification Requirements

[40 CFR 60.676(h), 40 CFR 60.7.a (3)]

The Permittee shall furnish to the Director and the EPA written notification or, if acceptable, electronic notification of the actual date of initial startup of an affected facility postmarked within 15 days after such date.

6. Testing Requirements

a. Within 60 days after achieving the maximum production rate, but not later than 180 days after the installation of second flue gas desulfurization unit, the Permittee shall conduct an initial performance test for PM & PM_{10} for wet dust extractors (DC-12 and DC-13). The performance test shall be used to demonstrate compliance with the limits in Condition VI.B.1.a..i and ii.

[40 CFR 60.8(A), A.A.C. R18-2-312]

b. Within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup of such facility, the Permittee shall conduct an initial performance test for opacity for bin vent filters (DC-14, DC-15 and DC-16). The performance test shall be used to demonstrate compliance with the opacity limit in Condition VI.B.1.b.i.

[40 CFR 60.672(f), 60.675.(C)(2)]

VII. FLY ASH HANDLING

A. Applicability

This section applies to the Fly Ash Handling Facility as described in Attachment "C" of this permit.

B. Opacity

1. Emission Limitations/Standards

The Permittee shall not cause to be discharged into the atmosphere from the Fly Ash Handling System any emissions greater than 20 percent opacity.
[A.A.C. R18-2-702.B.3]

2. Monitoring, Recordkeeping & Reporting

The Permittee shall conduct opacity monitoring in accordance with Condition I.E of this Attachment. This weekly observation shall include observation of all exposed transfer points, enclosed transfer points, the baghouses, and the mixer unloader. [A.A.C. R18-2-306.A.3.b]

3. Permit Shield

Compliance with this Section shall be deemed compliance with A.A.C. R18-2-702.B. [A.A.C. R18-2-325]

C. Particulate Matter

1. Permittee shall not cause, allow or permit the discharge of particulate matter into the atmosphere in any one hour from any fly ash handling operation in total quantities in excess of the amounts calculated by the following equation:

$$E = 55.0\ P^{0.11} - 40$$

Where:

E = the maximum allowable particulate emissions rate in pounds-mass per hour.
P = the process weight rate in tons-mass per hour. The total process weight from all similar units employing a similar type process shall be used in determining the maximum allowable emission of particulate matter.
[A.A.C. R18-2-730.A.1.b]

2. Air Pollution Controls

When the fly ash handling system is operational, Permittee shall maintain and *operate the associated Flex-Kleen baghouses, the Scientific baghouse, water spray header, pugmill and the mixer unloader used to minimize particulate matter emissions associated with fly ash handling in accordance with manufacturer's specification and in a manner consistent with good air pollution*

control practices. [A.A.C. R18-2-306.A.2 and 331]

[Material Permit Conditions are defined by underline and italics]

3. Monitoring, Recordkeeping & Reporting

a. The manufacturer's specifications shall be on file and shall be readily available for inspection by the Department. [A.A.C. R18-2-306.A.2]

b. Permittee shall maintain records of emissions related maintenance performed on the baghouses and mixer unloader. [A.A.C. R18-2-306.A.3.c]

4. Permit Shield

Compliance with this Section shall be deemed compliance with A.A.C. R18-2-730.A.1.b. [A.A.C. R18-2-325]

D. Odorous Materials

1. Permittee shall not emit gaseous or odorous materials from equipment, operations or premises in such quantities or concentrations as to cause air pollution. [A.A.C. R18-2-730.D]

2. Where a stack, vent or other outlet is at such a level that fumes, gas mist, odor, smoke, vapor or any combination thereof constituting air pollution is discharged to adjoining property, the Director may require the installation of abatement equipment or the alteration of such stack, vent, or other outlet by the Permittee thereof to a degree that will adequately dilute, reduce or eliminate the discharge of air pollution to adjoining property. [A.A.C. R18-2-730.G]

3. Permit Shield

Compliance with this section shall be deemed compliance with A.A.C. R18-730.D, and A.A.C. R18-2-730.G. [A.A.C. R18-2-325]

VIII. COOLING TOWERS 1 AND 2

A. Applicability

This Section applies to Cooling Towers 1 and 2 as described in Attachment "C" of this permit.

B. Opacity

1. Emissions Standards/ Limitations

The Permittee shall not cause to be discharged into the atmosphere from the

cooling towers any emissions greater than 20 percent opacity.
[A.A.C. R18-2-702.B.3]

2. Monitoring, Recordkeeping & Reporting

The Permittee shall conduct opacity monitoring for the cooling towers in accordance with Condition I.B of this Attachment.
[A.A.C. R18-2-306.A.3.b]

3. Permit Shield

Compliance with this Section shall be deemed compliance with A.A.C. R18-2-702.B. [A.A.C. R18-2-325]

C. Particulate Matter

1. Permittee shall not discharge particulate matter into the atmosphere in any one hour from the cooling towers in total quantities in excess of the amounts calculated by the following equation: [A.A.C. R18-2-730.A.1]

$E = 55.0 P^{0.11} - 40$

Where:

E = the maximum allowable particulate emissions rate in pounds-mass per hour.
P = the process weight rate in tons-mass per hour. The total process weight from all similar units employing a similar type process shall be used in determining the maximum allowable emission of particulate matter.

2. Permit Shield

Compliance with this Section shall be deemed compliance with A.A.C. R18-2-730.A.1. [A.A.C. R18-2-325]

D. Odorous Materials

1. Permittee shall not emit gaseous or odorous materials from equipment, operations or premises in such quantities or concentrations as to cause air pollution. [A.A.C. R18-2-730.D]

2. Where a stack, vent or other outlet is at such a level that fumes, gas mist, odor, smoke, vapor or any combination thereof constituting air pollution is discharged to adjoining property, the Director may require the installation of abatement equipment or the alteration of such stack, vent, or other outlet by the Permittee thereof to a degree that will adequately dilute, reduce or eliminate the discharge of air pollution to adjoining property. [A.A.C. R18-2-730.G]

3. Permit Shield

Compliance with this Section shall be deemed compliance with A.A.C. R18-2-

730.D, A.A.C. and R18-2-730.G. [A.A.C. R18-2-325]

IX. USED OIL SPECIFICATIONS

A. Emission Limitations/Standards

1. Permittee may burn used oil or used oil fuel if the following conditions are met:

   a. The flash point of the oil does not fall below 100º F;

   b. The oil does not have following contaminants in excess of the following levels:

(1)	Arsenic	5 ppm
(2)	Cadmium	2 ppm
(3)	Chromium	10 ppm
(4)	Lead	100 ppm
(5)	PCBs	2 ppm
(6)	Total Halogens	1000 ppm

[A.R.S. 49-426.G.1]

   c. Used oil or used oil fuel blended with virgin fuel oil does not exceed 5% of the total fuel in any fuel storage tank.
[Operating Permit #30732, Attachment B, Condition IX.A.1.c]

2. Limitations

   a. Permittee shall not burn Hazardous Waste or Hazardous Waste Fuel as defined by A.R.S. 49-921 at the Coronado Generating Facility.
[Operating Permit #30732, Attachment B, Condition IX.A.2.a]

   b. The amount of used oil consumed shall not exceed 350 barrels annually.
[Operating Permit #30732, Attachment B, Condition IX.A.2.b]

B. Monitoring/Recordkeeping/Reporting

1. All tests conducted pursuant to Condition IX.C of this Attachment shall be documented and a report submitted to the Department along with the semi-annual compliance certification.

2. Permittee shall maintain such records as required to document the use of the above fuel including the following:

   a. Dates on which used oil or used oil fuel was burned;
   b. Hours of usage of the used oil or used oil fuel; and
   c. The quantity of used oil or used oil fuel burned.
   d. Amount of used oil burned in each boiler.

C. Testing Requirements [A.R.S. 49-426.G.2]

1. All used oil or used oil fuel samples shall be tested prior to burning for chlorinated solvents by EPA Method 9077.

2. A representative sample from each source of used oil or used oil fuel shall be tested annually for Arsenic, Cadmium, Chromium, and Lead using approved EPA methods prior to burning.

D. Permit Shield

Compliance with this Section shall be deemed compliance with A.R.S. 49-426.G.1, Permit #30732, Attachment B, Condition IX.A.1.c, Condition IX.A.2.a, and Condition IX.A.2.b.

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

X. FUGITIVE EMISSIONS

A. Emission Limitations/Standards

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

a. Permittee shall not cause, allow or permit visible emissions from open areas, roadways and streets, storage piles or material handling in excess of 40 percent opacity measured in accordance with the Arizona Testing Manual, Reference Method 9. [A.A.C. R18-2-612]

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

i. Use approved dust suppressants, adhesive soil stabilizer, paving, covering, detouring, or wetting agents on, or bar access to open areas during construction operations, repair operations, demolition activities, clearing operations, and leveling operations, or when any earth is moved or excavated;

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

ii. Use approved dust suppressants, adhesive soil stabilizer, or paving on, or bar access to driveways, parking areas, and vacant lots where motor vehicular activity occurs;

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

iii. Use approved dust suppressants, temporary paving, detouring or wetting agents when a roadway is repaired, constructed, or reconstructed; [A.A.C. R18-2-605.A]

(4) Use dust suppressants, wetting agents, or cover the load adequately when transporting material likely to give rise to airborne dust; [A.A.C. R18-2-605.B]

iv. Use spray bars, hoods, wetting agents, dust suppressants, or cover when crushing, screening, handling, transporting, or conveying material that is likely to give rise to airborne dust;

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

v. Adequately cover, or use wetting agents, chemical stabilization, or dust suppressants when stacking, piling, or otherwise storing organic or inorganic dust producing material;

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

vi. Operate stacking and reclaiming machinery utilized at storage piles at all times with a minimum fall of material and with the use of spray bars and wetting agents;

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

vii. Use wetting agents or dust suppressants before the cleaning of site, roadway, or alley. Earth or other material shall be removed from paved streets onto which earth or other material has been transported by trucking or earth moving equipment, erosion by water or by other means; or

[A.A.C. R18-2-804.B]

viii. Any other method as proposed by the Permittee and approved by the Director. [A.A.C. R18-2-325]

B. Monitoring, Recordkeeping & Reporting

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

a. Bi-Weekly Monitoring Requirements

A certified EPA Reference Method 9 observer shall conduct a bi-weekly (once every two weeks) survey of visible emissions. If the opacity of the emissions observed appears to exceed the relevant opacity standard, the observer shall conduct a certified EPA Reference Method 9 opacity reading. The Permittee shall keep records of the initial survey and any EPA Reference Method 9 opacity readings performed. These records shall include the emission point observed, location of observer, name of observer, date and time of observation, and the results of the observation. If the Method 9 opacity reading shows in excess of the relevant opacity standard, the Permittee shall initiate appropriate corrective action to reduce the opacity below the standard. The Permittee shall keep a record of the corrective action performed.

b. Permittee shall maintain records of the dates on which any of the activities listed in condition X.A.1.b.i through ix of this Attachment were performed and control measures employed.

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

2. Open Burning

The Permittee shall maintain copies of all open burning permits on file.

C. Permit Shield

Compliance with the conditions of this part shall be deemed compliance with

A.A.C.R18-2-602, -604.A,-604.B, -605.A, -605B, -606, -607.A, -607.B, -612, and A.A.C.R18-2-804.B. [A.A.C. R18-2-325]

XI. OTHER PERIODIC ACTIVITIES

A. Emission Limitations/Standards

1. Abrasive Blasting

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

(1) Wet blasting;
(2) Effective enclosures with necessary dust collecting equipment; or
(3) Any other method as approved by the Director.

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

b. The Permittee shall not cause to be discharged into the atmosphere from sandblasting or other abrasive blasting operations any emissions greater than 20 percent opacity.

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

2. Use of Paints

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

a. The Permittee shall not conduct any spray painting operation without minimizing organic solvent emissions. Such operations other than architectural coating and spot painting shall be conducted in an enclosed area equipped with controls containing no less than 96 percent of the overspray. [A.A.C. R18-2-727.A]

b. The Permittee shall not either:

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

(2) Thin or dilute any architectural coating with a photochemically reactive solvent. [A.A.C. R18-2-727.B]

c. For the purposes of part b. and e. of this condition, a photochemically reactive solvent shall be any solvent with an aggregate of more than 20 percent of its total volume composed of the chemical compounds classified in paragraphs (1) through (3) of this subsection, or which exceeds any of the following percentage composition limitations, referred to the total volume of solvent:

(1) A combination of the following types of compounds having an

olefinic or cyclo-olefinic type of unsaturation - hydrocarbons, alcohols, aldehydes, esters, ethers, or ketones: five percent

(2) A combination of aromatic compounds with eight or more carbon atoms to the molecule except ethylbenzene: eight percent

(3) A combination of ethylbenzene, ketones having branched hydrocarbon structures, trichloroethylene or toluene: twenty percent.

[A.A.C. R18-2-727.C]

d. Whenever any organic solvent or any constituent of an organic solvent may be classified from it's chemical structure into more than one of the groups or organic compounds described in subsection c(1) through c(3) of this condition, it shall be considered to be a member of the group having the least allowable percent of the total volume of solvents.

[A.A.C. R18-2-727.D]

3. Surface Coating Operation

a. The Permittee shall not operate any surface coating application systems that emits volatile organic compounds in excess of the following:

(1) 4.3 pounds per gallon (0.5 kilograms per liter) of coating, excluding water, delivered to a coating applicator that applies clear coatings.

(2) 3.5 pounds per gallon (0.42 kilograms per liter) of coating, excluding water, delivered to a coating applicator in a coating application system that is air dried or forced warm air dried at temperatures up to 194 ^{o}F (90 ^{o}C).

(3) 3.5 pounds per gallon (0.42 kilograms per liter) of coating, excluding water, delivered to a coating applicator that applies extreme performance coatings.

(4) 3.0 pounds per gallon (0.36 kilograms per liter) of coating, excluding water, delivered to a coating applicator for all other coatings and application systems.

b. If more than one emission limitation in paragraph XI.A.3.a above applies to a specific coating, then the least stringent emissions limitation shall be applied.

c. All VOC emissions from solvent washings shall be considered in the emissions limitations listed in paragraph XI.A.3.a above, unless the solvent is directed to containers that prevent evaporation to the atmosphere.

[A.A.C R18-2-730.L]

4. Vapor Extractors

Materials including solvents or other volatile compounds shall be processed,

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

[A.A.C. R18-2-730.F]

5. Landfill Operations

Permittee shall not emit gaseous or odorous materials from the landfill operations in such quantities or concentrations to cause air pollution.

[A.A.C. R18-2-730.D]

6. Mobile Sources

a. Classification

The requirements of this condition are applicable to mobile sources which either move while emitting air contaminants or are frequently moved during the course of their utilization but are not classified as motor vehicles, agricultural vehicles, or are agricultural equipment used in normal farm operations. Mobile sources shall not include portable sources as defined in A.A.C. R18-2-101.84. [A.A.C. R18-2-801]

b. Roadway and Site Cleaning Machinery

Permittee shall not cause, allow or permit to be emitted into the atmosphere from any roadway and site cleaning machinery smoke or dust for any period greater than ten consecutive seconds, the opacity of which exceeds 40 percent. Visible emissions when starting cold equipment shall be exempt from this requirement for the first ten minutes. [A.A.C. R18-2-804.A]

7. Demolition/Renovation

Permittee shall comply with the applicable requirements of 40 CFR 61 Subpart M (National Emissions Standards for Hazardous Air Pollutants - Asbestos).

[A.A.C. R18-2-1101.A.8]

B. Monitoring, Recordkeeping, and Reporting [A.A.C. R18-2-306.A.3.c]

1. Abrasive Blasting

Each time an abrasive blasting project is conducted, the Permittee shall maintain records of the following:

a. The date the project was conducted;
b. The duration of the project; and
c. Type of control measures employed.

2. Use of Paints

a. Each time a spray painting project is conducted, the Permittee shall log in ink or in an electronic format, a record of the following:

(1) The date the project was conducted;
(2) The duration of the project;
(3) Type of control measures employed; and
(4) Material Safety Data Sheets for all paints and solvents used in the project.

b. Architectural coating and spot painting projects shall be exempt from the recordkeeping requirements of part a. above.

3. Mobile Sources

Permittee shall keep a record of all emissions related maintenance activities performed on Permittee's mobile sources stationed at the facility as per manufacturer's specifications.

4. Demolition/Renovation

Permittee shall keep all required records in a file. The required records include the ANESHAP Notification for Renovation and Demolition Activities form and all supporting documents.

5. Surface coating activities [A.A.C R18-2-306.A.3.c]

a. The Permittee shall log in ink or keep in an electronic format a records of the following:

(1) The date the project was conducted;
(2) the duration of the project;
(3) type of control measures employed
(4) amount of surface coating used for the project
(5) copies of the material safety and data sheets (MSDS) for each surface coating applied.

b. Permittee shall use vendor provided information to ensure that the surface coating materials being used satisfy the standards in Section XI.A.3.a of Attachment B. In the absence of vendor provided information, Permittee shall perform engineering calculations using the density and VOC content of the surface coating in order to compare against the standards set forth in Section XI.A.3.a of Attachment B.

C. Permit Shield

Compliance with this Section shall be deemed compliance with A.A.C. R18-2-702.B.C, R18-2-702.B.3, R18-2-726, R18-2-727.A, R18-2-727.B, R18-2-727.C, R18-2-727.D, R18-2-730.D, R18-2-730.F, and R18-2-730.L, andR18-2-1101.A.8.

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

XII. COAL ADDITIVE SODA ASH SILO

A. Applicability

This section applies to the Coal Additive Soda Ash Silo as described in Attachment "C" of this permit.

B. Opacity

1. Emission Limitation/Standards

[A.A.C. R 18-2-702.B.3]

The Permittee shall not cause, allow or permit the opacity of any plume or effluent from the coal additive soda ash silo to exceed 20 percent.

2. Monitoring/Recordkeeping/Recording

[A.A.C. R 18-2-306.A.3.c]

Permittee shall conduct weekly opacity monitoring of the baghouse associated with the coal additive soda ash silo in accordance with Condition I.B of this Attachment when the coal additive soda ash silo is operational.

C. Particulate Matter

1. Emission Limitation/Standards

a. Permittee shall not cause, allow or permit the discharge of particulate matter into the atmosphere in any one hour from the coal additive soda ash silo in total quantities in excess of the amounts calculated by the following equation:

$E = 4.10\ P^{0.67}$

Where:

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

P = the process weight rate in tons-mass per hour.

[A.A.C. R18-2-730.A.1.a]

b. The total process weight from all similar units employing a similar type process shall be used in determining the maximum allowable emission of particulate matter.

[A.A.C. R18-2-730.B]

2. Air Pollution Controls

When the coal additive soda ash silo is operational, Permittee shall maintain and *operate the baghouse used to capture particulate matter emissions associated with the coal additive soda ash silo in accordance with manufacturer's*

specification and in a manner consistent with good air pollution control practices. [A.A.C. R18-2-306.A.2 and 331.A.3.e]

[Material Permit Conditions are defined by underline and italics]

3. Monitoring/Recordkeeping/Reporting

a. The manufacturer's specifications shall be on file and shall be readily available for inspection by the Department.

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

b. Permittee shall maintain records of emissions related maintenance performed on the coal additive soda ash silo baghouse.

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

ATTACHMENT "C": EQUIPMENT LIST

Air Quality Control Permit No. 52639

for

Salt River Project -Coronado Generating Station

EQUIPMENT TYPE	MAX. CAPACITY	QUANTITY	MODEL	SERIAL # / EQUIPMENT #	INSTALLED /MFG DATE
Steam Generation					
Unit 1 Boiler	4719 MMBtu/hr	1	Riley Stoker Corporation	3901	7/25/1974
Unit 2 Boiler	4719 MMBtu/hr	1	Riley Stoker Corporation	3902	7/25/1974
Auxiliary Boiler	157 MMBtu/hr	1	Combustion Engineering	CFAABOIL	7/25/1974
Coal Pulverizers	145,000 lb/hr	6	Riley Stoker Corporation	1BAFMILLA,B,C 2BAFMILLA,B,C	7/25/1974
Pulverizer Feeder Unit 1	145,000 lb/hr	6	Riley Stoker Corporation	1BAFFDR1A1,1A2, 1B1,1B2,1C1,1C2	7/25/1974
Pulverizer Feeder Unit 2	145,000 lb/hr	6	Riley Stoker Corporation	2BAFFDR2A1,2A2, 2B1,2B2,2C1,2C2	7/25/1974
Cooling Tower 1	179900 gpm	1	Marley Company 664-4-14	1DABSTRU	7/25/1974
Cooling Tower 2	179900 gpm	1	Marley Company 664-4-14	2DABSTRU	7/25/1974
Hot Side Electrostatic Precipitators	2,800,000 acfm	4	Joy-Western	1JPAPREC0002, 1JPAPREC0005, 2JPAPREC0080, 2JPAPREC0082	7/25/1974
Sulfur Dioxide Scrubbers	378,000 scfm	4	Pullman Kellog	1JSAMODUA, 1JSAMODUB	7/25/1974
Sulfur Dioxide Absorbers	2,028,184 acfm Design flow/unit	2	Alstom	1WRAABS 2WRAABS	TBD 5/20/2011
Low-NOx Burners	4719 MMBtu/hr (total/boiler)	24/boiler	Babcock Power	1BAEBURNNFR 2BAEBURNNFR	5/19/2009 5/20/2011
Selective Catalytic Reduction System	TBD	1	TBD	TBD	TBD
Calcium Bromide Injection System	TBD	2	Alstom	TBD	TBD
Coal Handling System					
Rotary Car Dumper	100,000 lbs	1	Heyl & Patterson	CJKADUMPRCD	7/24/1974
Track Hopper	500 tons	1	Heyl & Patterson	CJKAHOPP	7/24/1974
Coal Crusher	1200 tph	2	Pennsylvania Crusher	CJKACRUSACL, CJKACRUSBCL,	7/24/1974
Track Hopper Feeder	750 tph	4	FMC	CJKAFDRV1,2, 3, 4	7/24/1974

Belt Conveyor BC-2A	3000 tph	1	FMC	CJKCONVB2A	7/24/1974
Belt Conveyor BC-4	3000 tph	1	FMC	CJKCONVBC4	7/24/1974
Belt Conveyor BC-5	1200 tph	1	FMC	CJKCONVBC5	7/24/1974
Belt Conveyor BC-6	1200 tph	1	FMC	CJKCONVBC6	7/24/1974
Belt Conveyor BC-7A & BC-7B	1200 tph	2	FMC	CJKCONVB7A, 7B	7/24/1974
Belt Conveyor BC-8A & BC-8B	1200 tph	2	FMC	2JKCONVB8A, 8B	7/24/1974
Belt Conveyor BC-9A, BC-9B, BC-10A, & BC-10B	1200 tph	4	FMC	1JKCONVB9A, 9B 2JKCONV10A, 10B	7/24/1974
Emergency Hopper	280 tons	1	FMC	CJKAHOPPRCL	7/24/1974
Emergency Hopper Feeder	1000 tph	2	FMC	CJKAFDRAER CJKAFDRBER	7/24/1974
Crusher Surge Bin	345 tons	1	FMC	CJKABINBNC	7/24/1974
Surge Bin Feeder	1200 tph	2	FMC	CJKAFDRASB CJKAFDRBSB	7/24/1974
Coal Sampling System	N/A	1	FMC	HP-76-134	7/24/1974
Sampling Building Dust Collector	7200 cfm	1	FMC		
Coal Silos	825 tons	6	FMC	1JKASILO1A, 1B, 1C 2JKASILO2A, 2B, 2C	7/24/1974
Dust Extractor 2	17,000 CFM	1	Engart	CJKABACDC2	1/12/2008
Dust Extractor 3	22,000 CFM	1	Engart	1JKACOLLDC3	2/15/2009
Dust Extractor 4	22,000 CFM	1	Engart	2JKACOLLDC4	4/17/2007
Dust Extractor 5	6,000 CFM	6	Engart	1JKACOLLDC5	2/5/2009
Coal Mixing System					
Belt Conveyor BC-3A	3000 tph	1	Continental Conveyor and Equip.	CJKACONVB3A	7/24/1974
Belt Conveyor BC-3B	1200 tph	1	Continental Conveyor and Equip	CJKAFCONVB3B	7/24/1974
Belt Conveyor BC-3C	1200 tph	1	Continental Conveyor and Equip	CJKAFCONVB3C	7/24/1974
Belt Feeder CM1	1200 tph	1	N/A	CJKACONVCM1	7/24/1974
Transfer Hopper CM1	40 tons	1	N/A	CJKAHOPPXFR	7/24/1974
Coal Storage Piles	1200 tph	2			
Rotary Plow Feeders	600 tph	3	Continental Conveyor and Equip	CJKAFDRCMI, M2, M3, M4	7/24/1974
Coal Crusher	1200 tph	1			

Traveling Boom Stacker	3000 tph	1	Stephens-Adamson	CJKASTACCL	7/24/1974
Fly Ash Handling System					
Fly Ash Storage Silos	62,800 ft^3	2	Allen-Sherman-Hoff	1JNASILOFAS 2JNASILOFAS	7/24/1974
Fly Ash Storage Silos Dust Collectors	2375 CFM	10	Flex-Kleen	1JNAFLTRAEBA, B,…E 2JNAFLTRAEBA, B,…E	7/24/1974
Fly Ash Receiving Silos Dust Collectors	15,000 CFM	1	Scientific	CJNAMRTDC1	2002
Limestone Handling System					
Limestone Truck Unloading Hopper	30 tons	1	McNally Pittsburgh	CJSAHOPPTUL	7/24/1974
Limestone Truck Unloading Hopper Feeder	200 tph	1	Marathon Electric Mfg.	C-M-JS-R-5910	6/23/2009
Limestone Belt Conveyor BC-101	200 tph	1	Varo	C-M-JS-R-5911	6/23/2009
Limestone Belt Conveyor BC-101A	200 tph	1	Varo	C-M-JS-R-5914	6/23/2009
Limestone Belt Conveyor BC-101B	200 tph	1	Varo	TBD	TBD
Limestone Belt Conveyor B	200 tph	1	TBD	TBD	TBD
Limestone Ball Mill	18 tph	1	TBD	TBD	TBD
Limestone Transfer Tower TT-1 Wet Dust Collector, DC-12	17,000 cfm	1	Engart/Benetech	211021	6/23/2009
Limestone Transfer Tower, TT-2 Wet Dust Collector, DC-13	13,000 cfm	1	Engart/Benetech	211022	6/23/2009
Limestone Storage Bin A	73 tons	1	-	C-M-JS-R-5917	6/23/2009
Limestone Storage Bin B	73 tons	1	-	C-M-JS-R-5921	6/23/2009
Limestone Storage Bin C	250 tons	1	-	-	-
Limestone Storage Bin Vent Filter, DC-14	600 scfm	1	Met-Pro Flex Kleen Division	11918	6/23/2009
Limestone Storage Bin Vent Filter, DC-15	600 scfm	1	Met-Pro Flex Kleen Division	11918	6/23/2009
New Limestone Storage Silo Bin Vent Filter, DC-16	1,000 ACFM	1	TBD	TBD	TBD
Soda Ash Handling System					

Coal Additive Soda Ash Silo	3,000 cubic feet	1	CHEMCO Systems, L.P.	SILO-12	2003
Other Control Equipment					
Sandblast Building Baghouse	N/A	1	N/A	CZHACOLLDC001	2001
Lime Silo Baghouse	300 CFM	1	Peabody	CARACOLL135	7/24/1974
Soda Ash Silo Baghouse	300 CFM	1	Peabody	CARACOLL134	7/24/1974
Weld Shop Baghouse	N/A	2	Torit	UNIT1 IG569313 UNIT2 IG569313	N/A
Paint Booth Filter	N/A	1	N/A	CZAAFLTR0001	N/A
Coal Additive Soda Ash Silo Baghouse	750 CFM	1	CHEMCO Systems, L.P.	DC-12	2003
Internal Combustion Engines					
Fire Booster Pump	800 hp	1	Cummins	10644000	1977
Emergency Generator	938 hp	1	Detroit Diesel	501681	1978
Emergency Fire Pump	266 hp	1	Caterpillar	64Z09303	1977

N/A = Not applicable

Continuous Monitoring Equipment for Units 1 and 2

Steam Unit	**NO_x Monitor**	**SO_2 Monitor**	**CO_2 Monitor**	**Opacity Monitor**	**Flow Monitor**
Unit 1	TECO 42C	TECO 43C	TECO 41C	EMS 1304	Panametrics Model CEM 68-29-2201-0 Serial #225
Unit 2	TEI 43i	TEI 43i	TEI 410i	TML Lighthawk – 560	EMRC DP-75 EMRC DP-75

Steam Unit	**CO Monitor**	**Hg Sampler**	**PM Monitor**
Unit 1	TEI 48i	Environmental Supply Company Hg-324K Automated Mercury Sampler	
Unit 2	TEI 48i	Environmental Supply Company Hg-324K Automated Mercury Sampler	Sick Maihak FWE 200

ATTACHMENT "D": PHASE II ACID RAIN PROVISIONS

Air Quality Control Permit No. 52639

for

Salt River Project, Coronado Generating Station

I. Statement of Basis

Statutory and Regulatory Authorities: In accordance with Arizona Revised Statutes, Title 49, Chapter 3, Article 2, Section 426.N, and Titles IV and V of the Clean Air Act, the Arizona Department of Environmental Quality issues this Phase II Acid Rain Permit pursuant to Arizona Administrative Code, Title 18, Chapter 2, Article 3, Section 333 (A.A.C. R18-2-333), "Acid Rain".

II. SO_2 Allowance† Allocations and NO_x Requirements for Each Affected Unit

		2011	2012	2013	2014	2015	2016	2017
Unit 1	SO_2 allowances under Tables 2, 3, or 4 of 40 CFR part 73	5,332*	5,332*	5,332*	5,332*	5,332*	5,332*	5,332*
	NO_x limit	Pursuant to 40 CFR 76.8(d)(2), Arizona Department of Environmental Quality approves a NOx early election compliance plan for Unit 1. The compliance plan is effective for calendar year 2000 through calendar year 2007. Under the compliance plan, the unit's annual average NOx emission rate for each year, determined in accordance with 40 CFR Part 75, shall not exceed the applicable emission limitation, under 40 CFR 76.5(a)(2) of 0.50 lb/MMBtu for wall fired boilers. If the unit is in compliance with its applicable emission limitation for each year of the plan, then the unit shall not be subject to the applicable emission limitation, under 40 CFR 76.7(a)(2), of 0.46 lb/MMBtu until calendar year 2008. In addition to the described NO_x compliance plan, this unit shall comply with all other applicable requirements of 40 CFR Part 76, including the duty to reapply for NO_x compliance plan and requirements covering excess emissions.						

		2011	2012	2013	2014	2015	2016	2017
Unit 2	SO_2 allowances under Tables 2, 3, or 4 of 40 CFR part 73	5,332*	5,332*	5,332*	5,332*	5,332*	5,332*	5,332*
	NO_x limit	Pursuant to 40 CFR 76.8(d)(2), Arizona Department of Environmental Quality approves a NOx early election compliance plan for Unit 2. The compliance plan is effective for calendar year 2000 through calendar year 2007. Under the compliance plan, the unit's annual average NOx emission rate for each year, determined in accordance with 40 CFR Part 75, shall not exceed the applicable emission limitation, under 40 CFR 76.5(a)(2) of 0.50 lb/MMBtu for wall fired boilers. If the unit is in compliance with its applicable emission limitation for each year of the plan, then the unit shall not be subject to the applicable emission limitation, under 40 CFR 76.7(a)(2), of 0.46 lb/MMBtu until calendar year 2008. In addition to the described NO_x compliance plan, this unit shall comply with all other applicable requirements of 40 CFR Part 76, including the duty to reapply for NO_x compliance plan and requirements covering excess emissions.							

† As defined under 40 CFR §72.2, "Allowance" means an authorization by the Administrator under the Acid Rain Program to emit up to one ton of sulfur dioxide during or after a specified calendar year.

* The number of allowances actually held by an affected source in a unit account may differ from the number allocated by U.S. EPA. Neither of the aforementioned conditions necessitate a revision to the unit SO_2 allowance allocations identified in this permit (See 40 CFR 72.84).

III. Comments, Notes and Justifications

SRP has early-elected for NO_x requirements on Units 1 and 2.

IV. Permit Application

The Permittee, and any other owners or operators of the units at this facility, shall comply with the requirements contained in the attached acid rain permit application (OMB No. 2060-0258) signed by the Designated Representative Kara M. Montalvo on 5/18/10.