

**DRAFT PERMIT #64169
PLACE ID #4477**

PERMITTEE: Salt River Project
FACILITY: Coronado Generating Station
PERMIT TYPE: Class I Air Quality Permit
DATE ISSUED:
EXPIRY DATE:

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 #52639.

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 on both Unit 1 and Unit 2. Selective Catalytic Reduction (SCR) on Unit 2 provides additional control for 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

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 Revised Statutes (A.R.S.) Title 49, Chapter 3, and the and air quality rules under Title 18, Chapter 2 of the Arizona Administrative Code. Any noncompliance is grounds for enforcement action; for permit termination, revocation and reissuance, or revision; or for denial of a permit renewal application. In addition, noncompliance with any federally enforceable requirement constitutes a violation of the Clean Air Act.
- B.** It shall not be a defense for a Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

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

[A.A.C. R18-2-306.A.8.c and -321.A.1 & 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, 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 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 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 the permit for the period covered by the certification, including whether compliance during the period was continuous or intermittent. The certification shall be based on the methods or means designated in Condition VII.A.2. 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; 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.

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 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.
- (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).

b. The report shall contain the following information:

- (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.

[A.A.C. R18-2-310.01.C]

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 within 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, 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.

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.

5. Demonstration of Reasonable and Practicable Measures

For an affirmative defense under Conditions XII.E.2 or 3, 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.
- B.** Excess emission; permit deviation, and emergency reports in accordance with Section XII.
- 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 do 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. R18-2-317]

- 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(24);
 - 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 C.
- C.** For each change under Conditions XVII.A and B, 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.
- 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.

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) 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 Results

Each performance test shall consist of three separate runs using the applicable test method. Each run shall be conducted for the time and under the conditions specified in the applicable standard. For the purpose of determining compliance with an applicable standard, the arithmetic mean of the results of the three runs shall apply. In the event that a sample is accidentally lost or conditions occur in which one of the three runs is required to be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances beyond the Permittee's control, compliance may, upon the 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

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.

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

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. APPLICABILITY OF NSPS/NESHAP GENERAL PROVISIONS

[40 CFR Part 60, Part 63]

For all equipment subject to a New Source Performance Standard or a National Emission Standard 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

I. FACILITY WIDE LIMITATIONS

- A.** The Permittee shall have on site or on call a person certified in EPA Reference Method 9 unless all Method 9 observations or instantaneous visual observations required by this permit are conducted as Alternative Method-082 (Digital Camera Operating Technique). The Permittee shall certify the camera and the associated software in accordance with ALT-082 procedures. Any Method 9 test or instantaneous visual survey required by this permit can be conducted as ALT-082. The results of a Method 9 observation or any individual instantaneous visual observation conducted as ALT-082 shall be obtained within 30 minutes of completing the Method 9 observation or individual instantaneous visual observation.

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

- B.** The 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.** The 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 listed in Equipment List, 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 Limitation

- a. Coal;
- b. Fuel Oil;
- c. Co-firing of coal and fuel oil, and
- d. Unprocessed wood (biomass)

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

2. The 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 two years following the date of such measurements, maintenance, reports and records.

[40 CFR 60.7(f)]

3. Excess Emissions and Monitoring System Performance 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 Condition II.C.3, the Permittee shall report emissions exceeding an emission limitation or standard as deviations in accordance with Condition XII.B, 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, SO₂, and NO_x emissions standards as follows:

a. Emission Rates using O₂ as Diluent Gas

The emission rate (E) of PM, SO₂, and NO_x shall be computed for each run using the following equation:

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

Where:

E = Emission rate of pollutant, ng/J (lb/million Btu).

C = Concentration of pollutant, ng/dscm (lb/dscf).

%O₂ = Oxygen concentration, percent dry basis.

F_d = Factor as determined from Method 19.

[40 CFR 60.46(b)(1)]

b. Emission Rates using CO₂ as Diluent Gas

As an alternate to the reference method, the emission rate (E) of PM, SO₂, and NO_x, may be determined by using the F_c factor in the following equation:

$$E = CF_c \frac{100}{\%CO_2}$$

Where:

E = emission rate of pollutant, ng/J (lb/million Btu).

C = concentration of pollutant, ng/dscm (lb/dscf).

%CO₂ = carbon dioxide concentration, percent dry basis.

F_c = factor as determined from Method 19.

[40 CFR 60.46(d)(1)]

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 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) and A.A.C. R18-2-406.A.4]
[Material Permit Conditions are defined by underline and italics]

- c. The Permittee shall not emit filterable particulate matter (PM) and particulate matter below 10 micron size (PM₁₀) in excess of 0.030 lbs./MMBtu, as determined by performance tests.

[Significant Revision #46236 Condition II.C.1.b.(3) and 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 Conditions II.B.2, 3, and 4 respectively, 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), and A.A.C. R18-2-331.A.3.f]
[Material Permit Conditions are defined by underline and italics]

- e. Excess opacity emissions for Units 1 and Unit 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, the 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:
- (1) 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;
 - (2) Operate automatic control systems on each HS-ESP to maximize particulate matter collection efficiency;
 - (3) Maintain power levels delivered to the HS-ESPs, consistent with manufacturer's specifications, the operational design of the unit, and good engineering practices;
 - (4) 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
 - (5) 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. *The Permittee shall 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. *In developing the plan for 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) and A.A.C. R18-2-331.A.3.c]
[Material Permit Conditions are defined by underline and italics]

- c. *The Permittee shall operate the PM CEMS in accordance with the QA/QC protocol approved by ADEQ and EPA.*

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

- d. 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 (lb/ 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)]

- e. Except for periods of monitor malfunction, maintenance, or repair, the Permittee 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)]

- f. 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)]

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

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

[Material Permit Conditions are defined by underline and italics]

- h. COMS Requirements

- (1) The COMS shall meet the following requirements:

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

- (a) Apparatus
- (b) Installation Specifications
- (c) Design and Performance Procedure
- (d) Design Specification Verification Procedure
- (e) Performance Specification Verification Procedure
- (f) Equations

[40 CFR 60.13(a)]

- (2) The following are the quality assurance requirements to be met:

- (a) Calibration Checks

The 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 Appendix B, PSI, 5.2]

- (b) Zero and Span Drift Adjustments

[40 CFR 60.13(d)(1)]

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

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

(3) System Check

[40 CFR 60.13(d)(2)]

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.

(4) Minimum frequency of Operation

[40 CFR 60.13(e)(1)]

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.

(5) Data Reduction and Missing Data

- (a) The 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.

[40 CFR 60.13(h)(1)]

- (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)(2)(vi and ix)]

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

- (1) The Permittee shall comply with the following indicators:

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

- (a) Emission measurements from the PM CEMS shall be the sole indicator of PM emissions.

- (b) If PM CEMS emission measurements are greater than 0.028 lb/MMBtu on a 24-hour rolling average, excluding periods of startup, shutdown, and malfunction, this shall be considered an excursion and trigger an inspection, corrective action, and recordkeeping requirement in accordance with Conditions II.D.3.i.(4) & (6) of this Attachment.
- (2) 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)]
- (3) 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), the 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. The 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) and 64.7(c)]
- (4) Response to Excursions or Exceedances
- (a) Upon detecting an excursion or exceedance, the 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.

[40 CFR 64.6(c)(3) and 64.7(d)(1)]

- (b) Determination of whether the Permittee has used acceptable procedures in response to an excursion or exceedance will be based on 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) and 64.7(d)(2)]

- (5) 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) and 64.7(e)]

- (6) 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:

[A.A.C. R18-2-309(2)(c)(iii), 40 CFR 64.9(a)(2)(i), and (ii)]

- (a) 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
- (b) 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).

- j. 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 in II.D.1.a 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. The Permittee shall conduct annual performance tests to determine compliance with the PM emissions rate established in Conditions II.D.1.b and c using the following reference methods and procedures (filterable portion only).

- (1) 40 CFR Part .60, Appendix A-3, Method 5, Method 5B, or Method 5I.
- (2) 40 CFR Part 60, Appendix A-6, Method 17; or
- (3) 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

- (1) The Permittee shall conduct each test consisting of three separate runs performed under representative operating conditions not including periods of startup, shutdown, or malfunction.
- (2) 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).
- (3) 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]

6. Permit Shield

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

Compliance with the conditions of this Part shall be deemed compliance with 40 CFR 60.42(a)(1), (a)(2), 60.45(a), (g)(1), 60.46(b)(2), (d)(2), 64.6, 64.7, and 64.9, and EPA Consent Decree Item #s 63, 64, 65, 67, 70, 71, and 74.

E. Nitrogen Oxides (NO_x)

1. Emission Limitations/Standards

a. Coal

(1) The Permittee shall not cause to be discharged into the atmosphere from the stack of each boiler any gases which contain nitrogen oxides, expressed as NO₂ in excess of 300 nanograms per joule heat input (0.70 lb per million Btu) derived from coal.

[40 CFR 60.44(a)(3)]

(2) The Permittee shall not allow the 30-day rolling average NO_x emission rate from Unit 1 to exceed 0.320 lb/MMBtu.

[Consent Decree (Civil Action No. 2:08-cv-1479-JAT) IV.A.1]

(3) The Permittee shall not allow the 30-day rolling average NO_x emission rate from Unit 2 to exceed 0.080 lb/MMBtu.

[Consent Decree (Civil Action No. 2:08-cv-1479-JAT) IV.A.2]

(4) The Permittee shall not allow the 365-day plant-wide rolling total NO_x emissions of Unit 1 and Unit 2 to exceed 7,300 tons.

[Consent Decree (Civil Action No. 2:08-cv-1479-JAT) IV.A.4]

b. Fuel Oil

The Permittee shall not cause to be discharged into the atmosphere from the stack of each unit any gases which contain nitrogen oxides, expressed as NO₂ 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

(1) 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 NO_x 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)]

- (2) 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

[40 CFR 60.45(g)(3)]

- (1) 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) exceed the applicable standards in Condition II.E.1.a.(1).
- (2) Excess emissions for Unit 1 and Unit 2 are defined as any 30-day rolling average that exceeds the applicable standards in Conditions II.E.1.a.(2) and (3).
- (3) Excess emissions for Units 1 and 2 are defined as any 365-rolling total that exceeds the applicable limit specified in Condition II.E.1.a.(4).

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. *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 imitations, 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) and 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:

(1) 40 CFR Part 75, Appendix A, Specification and Test Procedures

(a) Installation and measurement location

(b) Equipment specifications

(c) Performance specifications

(d) Data acquisition and handling systems

(e) Calibration gas

(f) Certifications tests and procedures

(g) Calculations

(2) 40 CFR Part 75, Appendix B, Quality Assurance and Quality Control Procedure

(a) Quality control program

(b) Frequency of testing

(3) Data Reduction

The 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) With 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.

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

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, 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

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

Compliance with the conditions of this Part shall be deemed compliance with 40 CFR 60.43(c), 60.44(a)(2), (a)(3), (b), 60.45(a), (g)(3), 40 CFR 75 Appendix "A" and "B", 40 CFR 75.10(d)(1), and EPA Consent Decree Item #s 41, 42, 43, 44, 45, and 46.

F. Carbon Dioxide (CO₂)

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 (CO₂) gas.

[40 CFR 60.45(a) and 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 CO₂ shall meet the following requirements:

(1) 40 CFR Part 75, Appendix A, Specification and Test Procedures

- (a) Installation and measurement location
- (b) Equipment specifications
- (c) Performance specifications
- (d) Data acquisition and handling systems
- (e) Calibration gas
- (f) Certifications tests and procedures
- (g) Calculations

(2) 40 CFR Part 75, Appendix B, Quality Assurance and Quality Control Procedure

- (a) Quality control program
- (b) Frequency of testing

(3) Data Reduction

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

2. Permit Shield

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

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

G. Sulfur Dioxide (SO₂)

1. Emission Limitations/Standards

a. Coal

- (1) The 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]

- (2) For Unit 1, the Permittee shall maintain a 30-day rolling average SO₂ removal efficiency of at least 95.0 percent or a 30-day rolling average SO₂ emission rate no greater than 0.080 lb/MMBtu.

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

- (3) For Unit 2, the Permittee shall maintain a 30-day rolling average SO₂ removal efficiency of at least 95.0 percent or a 30-day rolling average SO₂ emission rate no greater than 0.080 lb/MMBtu.

[Significant Revision #46236, Condition II.F.1.d]

b. Fuel Oil

- (1) The 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)]

- (2) 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

- (1) 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.

[40 CFR 60.45(g)(2)(i)]

- (2) Excess emissions for Unit 1 and Unit 2 are defined as any 30-day rolling average emissions of sulfur dioxide as measured by a continuous monitoring system exceeds the applicable standard in Condition II.G.1.a.(2) and (3).

[40 CFR 60.45(g)](2)(ii)]

2. Air Pollution Control Requirement

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

- b. The CEMS for SO₂ shall meet the following requirements:

- (1) 40 CFR Part 75, Appendix A, Specification and Test Procedures
- (a) Installation and measurement location
 - (b) Equipment specifications
 - (c) Performance specifications
 - (d) Data acquisition and handling systems
 - (e) Calibration gas
 - (f) Certifications tests and procedures
 - (g) Calculations
- (2) 40 CFR Part 75, Appendix B, Quality Assurance and Quality Control Procedure
- (a) Quality control program
 - (b) Frequency of testing
- (3) The Permittee shall comply with the data reduction requirements of 40 CFR Part 75.10(d)(1).
- (4) The Permittee shall comply with all applicable recordkeeping and

reporting requirements of 40 CFR Part 75 Subparts F and G respectively.

c. Monitoring of SO₂ Emission Rate

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

The Permittee shall determine the 30-day rolling average SO₂ emission rate and the 30-day rolling average SO₂ 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) SO₂ 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 SO₂ will be calculated as described in Condition II.G.3.d.(1)(b).

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

d. Determining the 30-Day Rolling Average SO₂ Removal Efficiency

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

- (1) If necessary, the Permittee shall calculate the 30-day rolling average SO₂ removal efficiency in accordance with the following procedure:
 - (a) Sum the total pounds of SO₂ 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.
 - (b) Sum the total pounds of SO₂ 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 SO₂ inlet to the lb/MMBtu SO₂ outlet and multiplying the outlet pounds of SO₂ by that ratio).

- (c) Subtract the outlet SO₂ emissions calculated in Condition II.G.3.d.(1)(a) from the inlet SO₂ emissions calculated in Condition II.G.3.d.(1)(b).
 - (d) Divide the remainder calculated in Condition II.G.3.d.(1)(c) by the inlet SO₂ emissions calculated in Condition II.G.3.d.(1)(b).
 - (e) Multiply the quotient calculated in Condition II.G.3.d.(1)(d) by 100 to express as a percentage of removal efficiency.
- (2) A new 30-day rolling average SO₂ 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.
- e. Determining the 30-Day Rolling Average SO₂ Emission Rate
[Significant Revision #46236, Condition II.F.3.d]
- (1) The Permittee shall calculate the 30-day rolling average SO₂ emission rate in accordance with the following procedure:
 - (a) Sum the total pounds of SO₂ 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 SO₂ emitted during the 30 Unit Operating Days by the total heat input during the 30 Unit Operating Days.
 - (2) A new 30-day rolling average SO₂ emission rate shall be calculated for each Unit Operating Day. Each 30-day rolling average SO₂ 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 SO₂ removal efficiency or SO₂ 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.

4. Permit Shield

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

Compliance with the conditions of this Part shall be deemed compliance with 40 CFR 60.43(a)(1), (c), 60.45(a), 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 EPA Consent Decree Item #s 7, 47, 48, 49, 50, and 58.

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. 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) and 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:

- (1) 40 CFR Part 60, Appendix B, Performance Specifications, Performance Specification 4, Specifications and Test Procedures for Carbon Monoxide Continuous Monitoring Systems in Stationary Sources.

- (2) 40 CFR Part 60, Appendix F, Quality Assurance Procedures.

- (3) 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.

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

- (4) Except for system breakdowns, repairs, calibration checks, and zero and span adjustments required under Condition II.H.2.c.(3), 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

- (1) 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.

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

- (2) Excess emissions for Unit I 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.1.

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

- (3) 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:

- (a) 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.
- (b) 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.
- (c) 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.
- (d) 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]

- (4) 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]

- (a) 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.
- (b) 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

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

Compliance with the conditions of this Part shall be deemed compliance with A.A.C. R18-2-406.A.4 & 5 and 40 CFR 60.45(a).

I. Sulfuric Acid (H₂SO₄) Mist

1. The Permittee shall not cause to be discharged into the atmosphere from Unit 2 any gases which contain H₂SO₄ in excess of 0.006 lb/MMBtu, excluding periods of start-up, shutdown, and malfunction.
2. The Permittee shall perform annual performance tests, using EPA Conditional Test Method 13 (CTM-13) or an alternate test method. 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. Permit Shield

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

Compliance with the conditions of this Part shall be deemed compliance with Condition II.I.1.

J. Surrender of SO₂ Allowances

1. For the purposes of this section, "surrender" means, with regard to SO₂ Allowances, permanently surrendering so that such SO₂ Allowances can never be used to meet any compliance requirement under the Clean Air Act or the Arizona SIP.

[Significant Revision #46236, Condition III.1]

2. Except as provided in Condition II.J.9, the Permittee shall not sell, trade, or transfer any SO₂ 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. The Permittee shall surrender to EPA, or transfer to a non-profit third party selected by the Permittee for purposes of surrender, all SO₂ 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 SO₂ Allowances, as limited by this condition, allocated to CGS to meet the federal and/or state Clean Air Act regulatory requirements for certain SO₂ emissions from such new coal-fired unit(s).
 - a. The Permittee may only use such SO₂ 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 SO₂ Allowances for the SO₂ 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 SO₂ Allowances the Permittee may use pursuant to this condition, the Permittee may use no more than the number of SO₂ Allowances that cover the same percentage of total SO₂ 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 SO₂ Allowances allocated to CGS to cover no more than fifty percent of the total SO₂ emissions from such new coal-fired unit. This reduction in the amount of SO₂ 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 SO₂ Allowances annually, within forty-five days of its receipt from EPA of the Annual Deduction Reports for SO₂. Any surrender need not include the specific SO₂ Allowances that were allocated to CGS, so long as the Permittee surrenders SO₂ 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 SO₂ 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 SO₂ Allowances and a listing of the serial numbers of the transferred SO₂ 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 SO₂ Allowances and will not use any of the SO₂ 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 SO₂ Allowances, the Permittee shall include a statement that the non-profit third-party recipient(s) surrendered the SO₂ Allowances for permanent surrender to EPA in accordance with the provisions of II.J.8 within 1 year after the Permittee transferred the SO₂ Allowances to them. The Permittee shall not have complied with the SO₂ Allowance surrender requirements of Condition II.J until all non-profit third-party recipient(s) shall have actually surrendered the transferred SO₂ Allowances to EPA.

[Significant Revision #46236, Condition II.I.7]
8. For all SO₂ Allowances surrendered to EPA, the Permittee or the non-profit third-party recipient(s) (as the case may be) shall first submit an SO₂ Allowance transfer request form to EPA's Office of Air and Radiation's Clean Air Markets Division directing the transfer of such SO₂ 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 SO₂ Allowances and identify – by name of account and any applicable serial or other identification numbers or station names – the source and location of the SO₂ Allowances being surrendered.

[Significant Revision #46236, Condition II.I.8]
9. Provided that the Permittee is in compliance with the SO₂ emission limitations established in Conditions II.G.1.a.(2) and (3), nothing shall preclude the Permittee from using, selling, or transferring Super-Compliance SO₂ Allowances that may arise as a result of achieving and maintaining SO₂ emission rates or removal efficiencies at Unit 1 and Unit 2 below the emission limits required in Conditions II.G.1.a.(2) and (3), so long as the Permittee timely reports the generation of such Super-Compliant SO₂ Allowances in accordance with Section XI (Periodic

Reporting) of the Consent Decree (Civil Action No. 2:08-cv-I479- JAT).

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

10. The Permittee shall not use SO₂ 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 SO₂ allowances to offset any excess emissions (i.e., emissions above the limits specified in Conditions II.G.1.a.(2) and (3)).

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

11. Nothing in this Section shall prevent the Permittee from purchasing or otherwise obtaining SO₂ 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. The requirements stated in Conditions II.J.2 to 10 pertaining to surrender of SO₂ allowances shall be permanent injunctions not subject to any termination provisions of the Consent Decree.

[Consent Decree (Civil Action No. 2:08-cv-1479-JAT) V.E.62]

13. Permit Shield

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

Compliance with the conditions of this Part shall be deemed compliance with Section II.J.

K. Mercury and Air Toxics Standards (MATS) - 40 CFR Part 63 Subpart UUUUU

1. Applicability

The requirements of 40 CFR Part 63, Subpart UUUUU are applicable to generating Units 1 and Unit 2.

2. Definitions

For purposes of the MATS Rule,

a. *Startup means* - The first-ever firing of fuel in a boiler for the purpose of producing electricity, or the firing of fuel in a boiler after a shutdown event for any purpose. Startup ends when any of the steam from the boiler is used to generate electricity for sale over the grid or for any other purpose (including on-site use). Any fraction of an hour in which startup occurs constitutes a full hour of startup

b. *Shutdown means* - The period in which cessation of operation of an EGU is initiated for any purpose. Shutdown begins when the EGU no longer generates electricity or makes useful thermal energy (such as heat or steam) for industrial, commercial, heating, or cooling purposes or when no coal, liquid oil, syngas, or solid oil-derived fuel is being fired in the EGU, whichever is earlier. Shutdown ends when the EGU no longer generates electricity or makes useful thermal energy (such as steam or heat) for industrial, commercial, heating, or cooling purposes, and no fuel is being fired in the EGU. Any fraction of an hour in which shutdown

occurs constitutes a full hour of shutdown.

[40 CFR 63.10042]

3. General Requirements

- a. The Permittee shall operate and maintain Units 1 and 2, including associated air pollution control and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions.

[40 CFR 63.10000(b)]

b. Startup and Shutdown Requirements

- (1) During startup and shutdown, the Permittee shall follow the requirements of Table 3 to 40 CFR 63 Subpart UUUUU.

[40 CFR 63.10005(j), 63.10011(g), Table 3 of 40 CFR 63 Subpart UUUUU]

- (2) During startup of Unit 1 and Unit 2, the Permittee shall use distillate oil (clean fuel).

[40 CFR 63.10011(f)]

- (3) During startup and shutdown, the Permittee shall operate all continuous monitoring systems (CMS).

[Table 3 of 40 CFR 63 Subpart UUUUU]

- (4) Once a unit is converted to firing coal, the Permittee shall engage all of the applicable control technologies except SCR.

[Table 3 of 40 CFR 63 Subpart UUUUU]

- (5) The Permittee shall start the SCR systems, if present, appropriately to comply with relevant standards applicable during normal operation.

[Table 3 of 40 CFR 63 Subpart UUUUU]

- (6) During shutdown, the Permittee shall operate all applicable control technologies while firing coal.

[Table 3 of 40 CFR 63 Subpart UUUUU]

- (7) The Permittee shall comply with all applicable emissions limits established by Subpart UUUUU at all times except for periods of startup and shutdown.

[Table 3 of 40 CFR 63 Subpart UUUUU]

4. Boiler Tune-ups

a. Periodic Tune-up

[40 CFR 63.10021(e)]

The Permittee shall perform periodic tune-ups for Unit 1 and Unit 2 which include inspection of burners and combustion controls at least once every 48 calendar months after the previous performance tune-up. If an Electric Generating Unit (EGU) is offline when a deadline to perform the tune-up passes, the Permittee shall perform the tune-up work practice requirements within 30 days after the re-start of the unit. Tune-ups shall be performed

as specified in Condition II.K.4.b.

b. Tune-up Procedures

In order to complete a tune-up the Permittee shall:

- (1) As applicable, inspect the burner and combustion controls of Unit 1 and Unit 2, and clean or replace any components of the burner or combustion controls as necessary upon initiation of the work practice program and at least once every required inspection period. Repair of a burner or combustion control component requiring special order parts may be scheduled as follows:
[40 CFR 63.10021(e)(1)]
 - (a) Burner or combustion control component parts needing replacement that affect the ability to optimize NO_x and CO must be installed within 3 calendar months after the burner inspection.
[40 CFR 63.10021(e)(1)(i)]
 - (b) Burner or combustion control component parts that do not affect the ability to optimize NO_x and CO may be installed on a schedule determined by the operator.
[40 CFR 63.10021(e)(1)(ii)]
- (2) As applicable, inspect the flame pattern and make any adjustments to the burner or combustion controls necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available, or in accordance with best combustion engineering practice for that burner type;
[40 CFR 63.10021(e)(2)]
- (3) As applicable, observe the damper operations as a function of mill and/or cyclone loadings, cyclone and pulverizer coal feeder loadings, or other pulverizer and coal mill performance parameters, making adjustments and effecting repair to dampers, controls, mills, pulverizers, cyclones, and sensors;
[40 CFR 63.10021(e)(3)]
- (4) As applicable, evaluate wind box pressures and air proportions, making adjustments and effecting repair to dampers, actuators, controls, and sensors;
[40 CFR 63.10021(e)(4)]
- (5) Inspect the system controlling the air-to-fuel ratio and ensure that it is correctly calibrated and functioning properly. Such inspection may include calibrating excess O₂ probes and/or sensors, adjusting over-fire air systems, changing software parameters, and calibrating associated actuators and dampers to ensure that the systems are operated as designed. Any component out of calibration, in or near failure, or in a state that is likely to negate combustion optimization efforts prior to the next tune-up, should be corrected or repaired as necessary;
[40 CFR 63.10021(e)(5)]

- (6) Optimize combustion to minimize generation of CO and NO_x. This optimization should be consistent with the manufacturer's specifications, if available, or best combustion engineering practice for the applicable burner type. NO_x optimization includes burners, over-fire air controls, concentric firing system improvements, neural network or combustion efficiency software, control systems calibrations, adjusting combustion zone temperature profiles, and add-on controls such as SCR and SNCR; CO optimization includes burners, over-fire air controls, concentric firing system improvements, neural network or combustion efficiency software, control systems calibrations, and adjusting combustion zone temperature profiles;

[40 CFR 63.10021(e)(6)]

- (7) While operating at full load or the predominantly operated load, measure the concentration in the effluent stream of CO and NO_x in ppm, by volume, and oxygen in volume percent, before and after the tune-up adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). The Permittee may use portable CO, NO_x, and O₂ monitors for this measurement. EGU's employing neural network optimization systems need only provide a single pre- and post-tune-up value rather than continual values before and after each optimization adjustment made by the system;

[40 CFR 63.10021(e)(7)]

c. Recordkeeping and Reporting Requirements

- (1) The Permittee shall maintain on-site and submit, if requested by the Administrator, an annual report containing the information in Condition II.K.4.b including:

[40 CFR 63.10021(e)(8)]

- (a) The concentrations of CO and NO_x in the effluent stream in ppm by volume, and oxygen in volume percent, measured before and after an adjustment of combustion systems;

[40 CFR 63.10021(e)(8)(i)]

- (b) A description of any corrective actions taken as a part of the combustion adjustment; and

[40 CFR 63.10021(e)(8)(ii)]

- (c) The type(s) and amount(s) of fuel used over the 12 calendar months prior to an adjustment, but only if the unit was physically and legally capable of using more than one type of fuel during that period.

[40 CFR 63.10021(e)(8)(iii)]

- (2) The Permittee shall report the dates of the initial and subsequent tune-ups in hard copy until April 16, 2017. After that date, report all subsequent tune-ups electronically, in accordance with 40

CFR 63.10031(f).

[40 CFR 63.10021(e)(9)]

5. Site Specific Monitoring Plan

- a. For demonstrating compliance with any applicable emissions limit through use of a continuous monitoring system (CMS), where a CMS includes a continuous parameter monitoring system (CPMS) as well as a continuous emissions monitoring system (CEMS) or a sorbent trap monitoring system, the Permittee shall develop a site-specific monitoring plan. This requirement to develop and submit a site-specific monitoring plan does not apply to affected sources with existing monitoring plans that apply to CEMS prepared under Appendix B to 40 CFR Part 60 or Part 75, and that meet the requirements of 40 CFR 63.10010. Using the process described in 40 CFR 63.8(f)(4), the Permittee may request approval of monitoring system quality assurance and quality control procedures alternative to those specified in this paragraph of this Condition and, if approved, include those in you site-specific monitoring plan. The monitoring plan must address the provisions in Conditions II.K.5.a.(1) through (4) as follows:

[40 CFR 63.10000(d)(1)]

- (1) The site-specific monitoring plan shall include the information specified in Conditions II.K.5.a.(4)(a) through (g). Alternatively, the requirements of Conditions II.K.5.a.(4)(a) through (g) are considered to be met for a particular CEMS or sorbent trap monitoring system if:

[40 CFR 63.10000(d)(2)]

- (a) The CEMS or sorbent trap monitoring system is installed, certified, maintained, operated, and quality-assured either according to 40 CFR Part 75, or appendix A or B of 40 CFR Part 63, Subpart UUUUU; and

[40 CFR 63.10000(d)(2)(i)]

- (b) The recordkeeping and reporting requirements of 40 CFR Part 75, or appendix A or B of 40 CFR Part 63, Subpart UUUUU that pertain to the CEMS are met.

[40 CFR 63.10000(d)(2)(ii)]

- (2) If requested by the Director, the Permittee shall submit the monitoring plan (or relevant portion of the plan) at least 60 days before the initial performance evaluation of a particular CEMS or sorbent trap monitoring system, except where the CEMS or sorbent trap monitoring system has already undergone a performance evaluation that meets the requirements of 40 CFR 63.10010 (e.g., if the CEMS was previously certified under another program).

[40 CFR 63.10000(d)(3)]

- (3) The Permittee shall operate and maintain the CEMS or sorbent trap monitoring system according to the site-specific monitoring plan.

[40 CFR 63.10000(d)(4)]

- (4) The Permittee, for the provisions of the site-specific monitoring plan, shall address the following items:

[40 CFR 63.10000(d)(5)]

- (a) Installation of the CEMS or sorbent trap monitoring system sampling probe or other interface at a measurement location relative to each affected process unit such that the measurement is representative of control of the exhaust emissions (e.g., on or downstream of the last control device). See 40 CFR 63.10010(a) for further details.

[40 CFR 63.10000(d)(5)(i)]

- (b) Performance and equipment specifications for the pollutant concentration or parametric signal analyzer, and the data collection and reduction systems.

[40 CFR 63.10000(d)(5)(ii)]

- (c) Schedule for conducting initial and periodic performance evaluations.

[40 CFR 63.10000(d)(5)(iii)]

- (d) Performance evaluation procedures and acceptance criteria (e.g., calibrations), including the quality control program in accordance with the general requirements of 40 CFR 63.8(d).

[40 CFR 63.10000(d)(5)(iv)]

- (e) On-going operation and maintenance procedures, in accordance with the general requirements of 40 CFR 63.8(c)(1)(ii), (c)(3), and (c)(4)(ii).

[40 CFR 63.10000(d)(5)(v)]

- (f) Conditions that define a CEMS that is out of control consistent with 40 CFR 63.8(c)(7)(i) and for responding to out of control periods consistent with 40 CFR 63.8(c)(7)(ii) and (c)(8).

[40 CFR 63.10000(d)(5)(vi)]

- (g) On-going recordkeeping and reporting procedures, in accordance with the general requirements of 40 CFR 63.10(c), (e)(1), and (e)(2)(i), or as specifically required under Subpart UUUUU.

[40 CFR 63.10000(d)(5)(vii)]

6. Emission Limits/ Standards

[Table 2, 40 CFR 63 Subpart UUUUU, 40 CFR 63.9991(a), 63.10000(a)]

The Permittee shall not cause to be discharged into the atmosphere, except for periods of startup and shutdown as defined in Condition II.K.2, from the Unit 1 or Unit 2 stack:

- a. Total particulate matter (PM) in excess of 0.030 lb/MMBTU or 0.30 lb/MWh,

- b. Sulfur Dioxide (SO₂) in excess of 0.20 lb/MMBTU or 1.50 lb/MWh.
- c. Mercury in excess of 1.2 lb/Tbu or 0.013 lb/GWh

7. Compliance Demonstration

a. General Requirements

- (1) The Permittee shall conduct all required performance tests according to 40 CFR 63.7(d), (e), (f) and (h). The Permittee shall also develop a site- specific plan according to the requirements in 40 CFR 63.7(c).

[40 CFR 63.10007(a)]

- (2) The Permittee shall conduct each performance test (including traditional 3-run stack tests, 30-boiler operating day tests based on CEMS or sorbent trap monitoring system data) according to the requirements of Table 5 of 40 CFR 63 Subpart UUUUU.

[40 CFR 63.10007(b)]

- (a) Install, certify, operate and maintain the PM CEMS using Performance Specification 11 at Appendix B to 40 CFR Part 60 and Procedure 2 at Appendix F to 40 CFR Part 60.

- (b) Install, certify, operate and maintain SO₂ CEMS using 40 CFR Part 75 and 40 CFR 63.10010(a) and (f).

- (c) Install, certify, operate and maintain Hg CEMS or sorbent trap monitoring systems using Appendix A of 40 CFR Part 63, Subpart UUUUU.

- (d) Install, certify, operate and maintain the diluent gas, flow rate, and/or moisture monitoring systems using 40 CFR Part 75 and 40 CFR 63.10010(a), (b), (c) and (d).

- (e) Convert hourly emissions concentrations to 30-boiler operating day rolling average lb/MMBtu or lb/MWh emissions rates using Method 19 F-factor methodology at Appendix A-7 to 40 CFR Part 60, or calculate using mass emissions rate and electrical output data.

[Table 5 of 40 CFR 63 Subpart UUUUU, 63.10007(e)(2)]

- (3) If the Permittee uses an oxygen (O₂) or carbon dioxide (CO₂) CEMS to convert measured pollutant concentrations to the units of the applicable emissions limit, the O₂ or CO₂ concentrations shall be monitored at a location that represents emissions to the atmosphere, *i.e.*, at the outlet of the EGU, downstream of all emission control devices. The Permittee shall install, certify, maintain, and operate the CEMS according to part 75 of this chapter. The Permittee shall use only quality assured O₂ or CO₂ data in the emissions calculations and shall not use part 75 substitute data values.

[40 CFR 63.10010(b)]

- (4) If the Permittee uses a stack gas flow rate monitor to convert pollutant concentrations to units of an electrical output-based emission, it shall be installed, certified, operated, maintained and quality-assured according to 40 CFR Part 75. The Permittee shall only use unadjusted, quality-assured flow rate data in the emissions calculations, and shall not apply bias adjustment factors or substitute flow rate data in calculations.
[40 CFR 63.10010(c)]
- (5) For determining compliance with emissions limits expressed in lb/MWh or lb/GWh, the Permittee shall first calculate the pollutant mass emission rate during the performance test, in units of lb/h, in accordance with 40 CFR 63.10007(e)(3).
[40 CFR 63.10007(e)(3)]
- (6) If the Permittee elects to use CEMS to continuously monitor SO₂, PM, or Hg emissions (or, if applicable, sorbent trap monitoring systems to continuously collect Hg emissions data), the following default values are available for use in the emission rate calculations during startup and shutdown periods. For the purposes of 40 CFR Part 63, Subpart UUUUU, these default values are not considered to be substitute data.
- (a) Diluent cap values: If using CEMS (or if applicable, sorbent trap monitoring systems) to comply with a heat input-based emission rate limit, the Permittee may use a 5% diluent cap value for CO₂ and an 14% diluent cap for O₂ for a startup or shutdown hour in which the measured CO₂ concentration is below the cap value or the measured O₂ concentration is above the cap value.
- (b) Default gross output: If using CEMS to continuously monitor PM, SO₂, or Hg emissions (or, if applicable, sorbent trap monitoring systems to continuously collect Hg emissions data), the following default value is available for use in the emission rate calculations during startup and shutdown periods. For the purposes of 40 CFR Part 63, Subpart UUUUU, this default value is not considered to be substitute data. For a startup or shutdown hour in which there is heat input to an affected Unit but zero gross output, the Permittee shall calculate the pollutant emission rate using a value equivalent to 5% of the maximum sustainable gross output, expressed in MW. This default gross output is either the nameplate capacity of the Unit or the highest gross output observed in at least four representative quarters of the Unit's operation.
[40 CFR 63.10007(f)]
- (7) Emissions Averaging
- (a) The Permittee may demonstrate compliance by emissions averaging among Units 1 and 2 if the averaged emissions (30 day rolling daily) of PM, SO₂, and Hg are equal to or

less than the limits in Condition II.K.6.

[40 CFR 63.10009(a)(2) and (c)]

- (b) 30-day group boiler operating days is defined as a period during which at least one unit in the emissions averaging group has operated 30 days.

[40 CFR 63.10009(a)(2)]

- (c) The Permittee shall calculate the weighted average emissions rate for the group as follows, using the data from all units in the group, including any that operate fewer than 30 days during the preceding 30 group boiler days:

[40 CFR 63.10009(a)(2) and (g)(1)]

- (i) The Permittee may choose to have the EGU emissions averaging group meet either the heat input basis (MMBtu or Tbtu) or gross electrical output basis (MWh or GWh).

[40 CFR 63.10009(a)(2)(i)]

- (ii) The Permittee may not mix bases within the EGU emission averaging group.

[40 CFR 63.10009(a)(2)(ii)]

- (iii) The Permittee shall use the calculations in 40 CFR 63.10009(b)(1) and (2) for emissions averaging.

[40 CFR 63.10009(b)]

- (d) The weighted-average emissions rate shall be in compliance with the limits in Condition II.K.6 at all times following the date that the Permittee begins emissions averaging.

[40 CFR 63.10009(e)]

(8) Emissions averaging group eligibility demonstration.

- (a) The Permittee shall demonstrate the ability for the EGUs included in the emissions averaging group to demonstrate initial compliance using maximum rated heat input or gross output over a 30-boiler operating day period of each EGU and the results of the initial performance tests. For this demonstration and prior to preparing the emissions averaging plan, the Permittee shall conduct emissions monitoring for 30 days of boiler operation and any required manual performance testing to calculate an initial weighted average emissions rate in accordance with the following:

[40 CFR 63.10009(f)]

- (i) The Permittee shall use Equation 1.a of 40 CFR 63.10009(b) to demonstrate that the maximum weighted average emissions rates of PM, SO₂,

and Hg from the units participating in the emissions averaging option do not exceed the limit in Condition II.K.6.

[40 CFR 63.10009(f)(1)]

- (ii) If the permittee is not capable of monitoring heat input or gross electrical output, and the EGU generates steam for purposes other than generating electricity, the Permittee may use Equation 1b of this section as an alternative to using Equation 1a of this section to demonstrate that the maximum weighted average emissions rates of filterable PM, SO₂, non-Hg HAP metals, or Hg emissions from the existing units participating in the emissions averaging group do not exceed the emission limits in Table 2 to this subpart.

[40 CFR 63.10009(f)(2)]

- (b) The Permittee shall determine the weighted average emissions rate in units of the applicable emission limit on a 30 day rolling average basis. The first averaging period begins on 30 days after the date that the Permittee begins averaging. The Permittee shall use the equations 2a or 3a in 40 CFR 63.10009(b) to calculate the weighted average emission rate using the actual heat input or gross output for each existing unit participating in the emissions averaging option.

[40 CFR 63.10009(g) and (g)(1)]

- (c) The Permittee shall use the data from the CEMS (or sorbent trap monitoring for Hg emissions) to determine the 30 group boiler operating day rolling average emissions rate.

[40 CFR 63.10009(h)]

(9) Emissions Averaging Plan

If electing to average emissions, the Permittee shall develop an implementation plan for emissions averaging. The Permittee shall include the following information in the implementation plan for all emissions units included in the averaging:

[40 CFR 63.10009(j)]

- (a) The identification of all units in the emissions averaging group, including for each the control technology installed, or the date for which emissions measurements used to support emissions averaging plan is completed, or the date that emissions averaging began, whichever is earlier; and the date on which the Permittee is requesting emissions averaging to commence;

[40 CFR 63.10009(j)(1)(i)]

- (b) The process weighting parameter (heat input, gross output, or steam generated) that will be monitored for each averaging group;
 [40 CFR 63.10009(j)(1)(ii)]
- (c) The specific control technology or pollution prevention measure to be used for each emission EGU in the averaging group and the date of its installation or application. If the pollution prevention measure reduces or eliminates emissions from multiple EGUs, the Permittee shall identify each EGU;
 [40 CFR 63.10009(j)(1)(iii)]
- (d) The means of measurement of filterable PM, Hg, and SO₂ in accordance with 40 CFR 63.10007 and to be used in the emissions averaging calculations; and
 [40 CFR 63.10009(j)(1)(iv)]
- (e) A demonstration that emissions averaging can produce compliance with each of the applicable limits in Condition II.K.6.
 [40 CFR 63.10009(j)(1)(v)]

b. Continuous Compliance

- (1) The Permittee shall demonstrate continuous compliance with each applicable work practice, monitoring plan, and emission limit standard established in Conditions II.K.4, II.K.5, and II.K.6 according to the monitoring specified in this subsection.
 [40 CFR 63.10021(a)]
- (2) The Permittee shall demonstrate continuous compliance by using all quality-assured hourly data recorded by the CEMS or sorbent trap monitoring systems and the other required monitoring systems (e.g., flow rate, CO₂, O₂ or moisture systems) to calculate the arithmetic average emissions rate in units of the standard on a continuous 30- boiler operating day rolling average basis, updated at the end of each new boiler operating day. The 30-boiler operating day rolling average shall be calculated using the following equation:

[40 CFR 63.10021(b)]

$$30 \text{ Boiler Operation Day Average} = \frac{\sum_{i=1}^n Her_i}{n}$$

Where:

Her_i = The hourly emissions rate for hour i

n = The number of hourly emissions rate values collected over 30-boiler operating days

- (3) SO₂
 - (a) For demonstrating continuous compliance with the SO₂

emissions limits of Condition II.K.6.b, the Permittee shall certify, operate, and maintain the SO₂ CEMS according to 40 CFR Part 75.

[40 CFR 63.10010(f)(1)]

- (b) For on-going QA, the SO₂ CEMS shall meet the applicable daily, quarterly, and semiannual or annual requirements in sections 2.1 through 2.3 of appendix B to 40 CFR Part 75, with the following addition: the Permittee shall perform the linearity checks required in section 2.2 of Appendix B to 40 CFR Part 75 if the SO₂ CEMS has a span value of 30 ppm or less.

[40 CFR 63.10010(f)(2)]

- (c) The Permittee shall calculate and record a 30-boiler operating day rolling average SO₂ emission rate in the units of the standard, updated after each new boiler operating day. Each 30-boiler operating day rolling average emission rate is the average of all of the valid SO₂ emission rates in the preceding 30-boiler operating day period.

[40 CFR 63.10010(f)(3)]

- (d) The Permittee shall use only unadjusted, quality-assured SO₂ concentration values in the emissions calculations, shall not apply bias adjustment factors to the 40 CFR Part 75 SO₂ data and shall not use 40 CFR Part 75 substitute data values. For startup or shutdown hours the default gross output and the diluent cap are available for use in the hourly SO₂ emission rate calculations, as described in §63.10007(f). The Permittee shall use a flag to identify each startup or shutdown hour and report a special code of the diluent cap or default gross output is used to calculate the SO₂ emission rate for any of these hours.

[40 CFR 63.10010(f)(4)]

(4) PM

- (a) The Permittee shall operate and maintain the PM CEMS in accordance to the procedures and requirements in Procedure 2- Quality Assurance Requirements for Particulate Matter Continuous Emission Monitoring Systems at Stationary Sources in Appendix F to part 60 of this chapter.

[40 CFR 63.10010(i)(2)]

- (i) The Permittee shall conduct the Relative Response Audit (RRA) at least once annually.

[40 CFR 63.10010(i)(2)(i)]

- (ii) The Permittee shall conduct the Relative Correlation Audit (RCA) at least once every 3 years.

[40 CFR 63.10010(i)(2)(ii)]

- (b) The Permittee shall calculate the arithmetic 30-boiler operating day rolling average of all the hourly average PM CEMS output data collected during all nonexempt boiler operating hours.
[40 CFR 63.10010(i)(4)]
- (c) The Permittee shall collect data using the PM CEMS at all times Units 1 and 2 are operating, except for periods of monitoring system malfunctions, repairs associated with monitoring system malfunctions, and required monitoring system quality assurance or quality control activities.
[40 CFR 63.10010(i)(5)]
- (d) The Permittee shall use all the data collected during all boiler operating hours in assessing compliance with the operating limit except:
- [40 CFR 63.10010(i)(5)(i)]
- (i) Any data collected during monitoring system malfunctions, repairs associated with monitoring system malfunctions, and required monitoring system quality assurance or quality control activities; Any monitoring system quality assurance or out of control periods shall be reported in an annual deviation report;
[40 CFR 63.10010(i)(5)(i)(A)]
- (ii) Any data collected during periods when the monitoring system is out of control as specified in the site-specific monitoring plan, repairs associated with periods when the monitoring system is out of control, or required monitoring system quality assurance or control activities conducted during out of control periods in calculations used to report emissions or operating levels and report any such periods in an annual deviation report;
[40 CFR 63.10010(i)(5)(i)(B)]
- (iii) Any data recorded during periods of startup and shutdown.
[40 CFR 63.10010(i)(5)(i)(C)]
- (5) Hg
- (a) The Permittee shall operate, maintain, and quality assure the data from the CEMS or sorbent trap monitoring systems in accordance with Appendix A of 40 CFR Part 63, Subpart UUUUU.
[40 CFR 63.10010(g)]
- (i) If using sorbent trap monitoring, the Permittee may choose to use separate sorbent trap

monitoring systems. One sorbent trap monitoring system to demonstrate compliance with the numeric mercury emissions limit during periods other than startup or shutdown and the other sorbent trap monitoring system to report average mercury concentration during startup periods or shutdown periods.

[40 CFR 63.10000(c)(1)(vi)(A)]

- (ii) The Permittee may choose to use one sorbent trap monitoring system to demonstrate compliance with the mercury emissions limit at all times (including startup periods and shutdown periods) and to report average mercury concentration. The Permittee must follow the startup and shutdown requirements that follow and as given in Table 3 to this subpart for each coal-fired, liquid oil-fired, or solid oil-derived fuel-fired EGU.

[40 CFR 63.10000(c)(1)(vi)(B)]

- (b) The Permittee shall calculate and record a 30-boiler operating day rolling average Hg emission rate, in units of the standard, update after each new boiler operating day. Each 30- boiler operating day rolling average emission rate, calculated according to Section 6.2 of Appendix A to the subpart, is the average of all of the valid hourly Hg emission rates in the preceding 30- boiler operating days. Section 7.1.4.3 of Appendix A to this subpart explains how to reduce sorbent trap monitoring system data to an hourly basis.

[40 CFR 63.10010(g)]

- (6) The Permittee shall, as part of demonstration of continuous compliance, perform periodic tune-ups of EGU(s), according to Condition II.K.4.c.

[40 CFR 63.10006(i)]

8. Notifications

- a. The Permittee shall submit all of the applicable notifications in 40 CFR 63.7(b) and (c), 40 CFR 63.8 (e), (f)(4) and (6), and 40 CFR 63.9 (b) through (h) by the dates specified.

[40 CFR 63.10030(a)]

- b. The Permittee shall submit a Notification of Compliance Status according to 40 CFR 63.9(h)(2)(ii) to demonstrate initial compliance as specified in 40 CFR 63.10011(a). The Notification of Compliance Status report must contain all the information specified in Conditions II.K.8.b.(1) through (7), as applicable:

[40 CFR 63.10030(e)]

- (1) A description of the affected source(s) including identification of which subcategory the source is in, the design capacity of the source, a description of the add-on controls used on the source,

description of the fuel(s) burned, including whether the fuel(s) were determined by the Permittee or EPA through a petition process to be a non-waste under 40 CFR 241.3, whether the fuel(s) were processed from discarded non-hazardous secondary materials within the meaning of 40 CFR 241.3, and justification for the selection of fuel(s) burned during the performance test.

[40 CFR 63.10030(e)(1)]

- (2) Summary of the results of all performance tests and fuel analyses and calculations conducted to demonstrate initial compliance including all established operating limits.

[40 CFR 63.10030(e)(2)]

- (3) Identification of whether the Permittee plans to demonstrate compliance with each applicable emission limit through performance testing; fuel moisture analyses; performance testing with operating limits; CEMS; or a sorbent trap monitoring system.

[40 CFR 63.10030(e)(3)]

- (4) Identification of whether the Permittee plan to demonstrate compliance by emissions averaging.

[40 CFR 63.10030(e)(4)]

- (5) A signed certification that the Permittee has met all applicable emission limits and work practice standards.

[40 CFR 63.10030(e)(5)]

- (6) If the Permittee had a deviation from any emission limit, work practice standard, or operating limit, the Permittee shall also submit a brief description of the deviation, the duration of the deviation, emissions point identification and the cause of the deviation in the Notification of Compliance Status report.

[40 CFR 63.10030(e)(6). 63.10021(g)]

- (7) In addition to the information required in 40 CFR 63.9(h)(2), the Permittee's notification of compliance status must include the certifications of compliance, as applicable, and must be signed by a responsible official stating:

[40 CFR 63.10030(e)(7) and (7)(ii)]

- (a) "This EGU complies with the requirements in 40 CFR 63.10021(a) to demonstrate continuous compliance," and

[40 CFR 63.10030(e)(7)(ii)(A)]

- (b) "No secondary materials that are solid waste were combusted in any affected unit."

[40 CFR 63.10030(e)(7)(ii)(B)]

- (8) Identification of the emissions limits with which the Permittee plans to comply for each EGU.

[40 CFR 63.10030(e)(7)(iii)]

- (a) The Permittee may switch from a mass per heat input to a mass per gross output limit (or vice-versa), provided that:

- (i) The Permittee submit a request that identifies for each EGU or EGU emissions averaging group involved in the proposed switch both the current and proposed emission limit;
 - (ii) The request arrives to the Director at least 30 calendar days prior to the date that the switch is proposed to occur;
 - (iii) The request demonstrates through performance stack test results completed within 30 days prior to the submission, compliance for each EGU or EGU emissions averaging group with both the mass per heat input and mass per gross output limits;
 - (iv) All other applicable plans (monitoring, emissions averaging) are revised and submitted with the request;
 - (v) Records of all information regarding the choice of emissions limits are kept.
- (b) The Permittee shall begin using the revised emission limits starting in the next reporting period, after receipt of written acknowledgement from the Director of the switch.
 - (c) From submission of the request until the start of the next reporting period after receipt of written acknowledgement from the Director of the switch, the Permittee shall demonstrate compliance with both the mass per heat input and mass per gross output emission limit for each pollutant for each EGU or EGU emissions averaging group.
- c. The Permittee shall submit a Notification of Intent to conduct a performance test at least 30 days before a test is initially scheduled to begin.

[40 CFR 63.10030(d)]

9. Reports

- a. The Permittee shall submit to the Director all reports required by Table 8 of 40 CFR 63, Subpart UUUUU and shall meet the reporting requirements as specified by 40 CFR 63.10031.
- b. The Permittee shall submit each report, by the date identified in Table 8, 40 CFR 63.10031, Subpart UUUUU, according to the following requirements:

[40 CFR 63.10031(b)]

- (1) Each compliance report must cover the semiannual reporting period from January 1st through June 30th or the semiannual

reporting period from July 1st through December 31st.

[40 CFR 63.10031(b)(3)]

- (2) Each compliance report must be postmarked or submitted electronically no later than July 31st or January 31st, whichever date is the first date following the end of the semiannual reporting period.

[40 CFR 63.10031(b)(4)]

- (3) The Permittee may submit the semiannual compliance reports according to the dates the Director has established instead of according to the dates in Conditions II.K.9.b.(1) and (2).

[40 CFR 63.10031(b)(5)]

- c. The Permittee shall submit the compliance report containing the following:

[40 CFR 63.10031(c)]

- (1) The information required by the summary report located in 40 CFR 63.10(e)(3)(vi).

[40 CFR 63.10031(c)(1)]

- (2) The total fuel use by each affected source subject to an emission limit, for each calendar month within the semiannual reporting period, including, but not limited to, a description of the fuel, whether the fuel has received a non-waste determination by EPA or the Permittee's basis for concluding that the fuel is not a waste, and the total fuel usage amount with units of measure.

[40 CFR 63.10031(c)(2)]

- (3) Indicate whether the Permittee burned new types of fuel during the reporting period. If the Permittee did burn new types of fuel the Permittee shall include the date of the performance test where that fuel was in use.

[40 CFR 63.10031(c)(3)]

- (4) Include the date of the most recent tune-up for each unit subject to the requirement.

[40 CFR 63.10031(c)(4)]

- (5) A certification.

[40 CFR 63.10031(c)(8)]

- (6) If there are any deviations from any emission limits, work practice standard, or operating limit, the Permittee shall also submit a brief description of the deviation, the duration, emissions point identification and the cause of the deviation.

[40 CFR 63.10031(c)(9)]

- d. For each excess emissions occurring at the facility where the Permittee is using a CEMS or a separate trap measurement systems to comply with that emission limit or operating limit, the Permittee shall include the following information in the compliance report.

[40 CFR 63.10031(d)]

- (1) The date and time identifying each period during which the CEMS or sorbent trap measurement system was inoperative except for zero (low-level) and high-level checks;
[40 CFR 63.10(c)(5)]
 - (2) The date and time identifying each period during which the CEMS or separate sorbent trap measurement system was out of control, as defined in 40 CFR 63.8(c)(7);
[40 CFR 63.10(c)(6)]
 - (3) The specific identification (i.e., the date and time of commencement and completion) of each period of excess emissions and parameter monitoring exceedances, as defined in the relevant standard(s), that occurs during startups, shutdowns, and malfunctions of the affected source;
[40 CFR 63.10(c)(7)]
 - (4) The specific identification (i.e., the date and time of commencement and completion) of each time period of excess emissions and parameter monitoring exceedances, as defined in the relevant standard(s), that occurs during periods other than startups, shutdowns, and malfunctions of the affected source;
[40 CFR 63.10(c)(8)]
 - (5) The nature and cause of any malfunction (if known);
[40 CFR 63.10(c)(10)]
 - (6) The corrective action taken or preventative measures adopted;
[40 CFR 63.10(c)(11)]
 - (7) The nature of the repairs or adjustments to the CEMS or sorbent trap measurement system that was inoperative or out of control;
[40 CFR 63.10(c)(12)]
 - (8) The total process operating time during the reporting period; and
[40 CFR 63.10(c)(13)]
 - (9) All procedures that are part of a quality control program developed and implemented for CEMS under 40 CFR 63.8(d).
[40 CFR 63.10(c)(14)]
 - (10) When no excess emissions or exceedances of a parameter have occurred, or a CEMS or separate sorbent trap measurement system has not been inoperative, out of control, repaired, or adjusted, such information shall be stated in the report.
[40 CFR 63.10(e)(3)(v)]
- e. The Permittee shall report all deviations as defined in this subpart in the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A). If the Permittee submits a compliance report pursuant to Table 8 of 40 CFR Part 63, Subpart UUUUU along with, or as part of, the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), and the compliance report includes all required information concerning deviations from any emission

limit, operating limit, or work practice requirement in this subpart, submission of the compliance report satisfies any obligation to report the same deviations in the semiannual monitoring report. Submission of a compliance report does not otherwise affect any obligation the Permittee may have to report deviations from permit requirements to the permit authority.

[40 CFR 63.10031(e)]

- f. On or after April 17, 2017, within 60 days after the date of completing each CEMS performance evaluation test, as defined in 40 CFR 63.2 and required by 40 CFR 63, Subpart UUUUU, the Permittee shall submit the relative accuracy test audit (RATA) data (or, for PM CEMS, RCA and RRA data) required by 40 CFR 63, Subpart UUUUU to EPA's WebFIRE database by using the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (www.epa.gov/cdx). The RATA data shall be submitted in the file format generated through use of EPA's Electronic Reporting Tool (ERT) (<http://www.epa.gov/ttn/chiej/ert/index.htmf>). Only RATA data compounds listed on the ERT Web site are subject to this requirement. Permittee's who claim that some of the information being submitted for RATAs is confidential business information (CBI) shall submit a complete ERT file including information claimed to be CBI on a compact disk or other commonly used electronic storage media (including, but not limited to, flash drives) by registered letter to EPA and the same ERT file with the CBI omitted to EPA via CDX as described earlier in this paragraph. The compact disk or other commonly used electronic storage media shall be clearly marked as CBI and mailed to U.S. EPA/OAPQS/CORE CBI Office, Attention: WebFIRE Administrator, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. The Permittee shall also submit these RATAs to the Director in the format specified in this condition. The Permittee shall submit calibration error testing, drift checks, and other information required in the performance evaluation as described in 40 CFR 63.2 and as required in 40 CFR 63.10031(f)(1).

[40 CFR 63.10031(f)(1)]

- g. On or after April 17, 2017, for PM CEMS, within 60 days after the reporting periods ending on March 31st, June 30th, September 30th, and December 31st the Permittee shall submit quarterly reports to EPA's WebFIRE database by using the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (www.epa.gov/cdx). The Permittee shall use the appropriate electronic reporting form in CEDRI or provide an alternate electronic file consistent with EPA's reporting form output format. For each reporting period, the quarterly reports shall include all of the calculated 30-boiler operating day rolling average values derived from the CEMS.

[40 CFR 63.10031(f)(2)]

- h. Reports for an SO₂ CEMS, and Hg CEMS or sorbent trap, and any supporting monitors for such system (such as a diluent or moisture monitor) shall be submitted by the Permittee using the ECMPS Client Tool, as provided for in 40 CFR 63, Subpart UUUUU, Appendices A and 40 CFR 63.10021(f).

[40 CFR 63.10031(f)(3)]

- i. On or after April 17, 2017, the Permittee shall submit the compliance reports required under Condition II.K.8.b and the notification of compliance status required of Condition II.K.8.b. to EPA's WebFIRE database by using the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (*www.epa.gov/cdx*). The Permittee shall use the appropriate electronic reporting form in CEDRI or provide an alternate electronic file consistent with EPA's reporting form output format.

[40 CFR 63.10031(f)(4)]

- j. All reports required by this subpart not subject to the requirements in Condition II.K.9.f through i shall be sent to the Director at 1110 West Washington Street, Phoenix, Arizona 85007. These reports may be submitted on electronic media. The Director retains the right to require submittal of reports subject to Condition II.K.9.f through i in paper format.

[40 CFR 63.10031(f)(5)]

- k. Prior to April 16, 2017, all reports subject to electronic submittal in Conditions II.K.9.f through i shall be submitted to the EPA at the frequency specified in those paragraphs in electronic portable document format (PDF) using the ECMPS Client Tool. Each PDF version of a submitted report must include sufficient information to assess compliance and to demonstrate that the testing was done properly. The following data elements must be entered into the ECMPS Client Tool at the time of submission of each PDF file.

[40 CFR 63.10031(f)(6)]

- l. If a malfunction occurs during the reporting period, the compliance report shall include the number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded.

[40 CFR 63.10031(g)]

10. Recordkeeping Requirements

- a. The Permittee shall keep the following records:

- (1) A copy of each notification and report submitted by the Permittee to comply with section, including all documentation supporting any Initial Notification or Notification of Compliance Status or semiannual compliance report that you submitted, according to the requirements in 40 CFR 63.10(b)(2)(xiv).

[40 CFR 63.10032(a)(1)]

- (2) Records of performance stack tests, fuel analyses, or other compliance demonstrations and performance evaluations, as required in 40 CFR 63.10(b)(2)(viii).

[40 CFR 63.10032(a)(2)]

- (3) For each CEMS and sorbent trap monitoring system, the Permittee shall keep the following records.

[40 CFR 63.10032(b)]

- (4) Records described in 40 CFR 63.10(b)(2)(vi) through (xi).
[40 CFR 63.10032(b)(1)]
 - (5) Previous (*i.e.*, superseded) versions of the performance evaluation plan as required in 40 CFR 63.8(d)(3).
[40 CFR 63.10032(b)(2)]
 - (6) Request for alternatives to relative accuracy test for CEMS as required in 40 CFR 63.8(f)(6)(i).
[40 CFR 63.10032(b)(3)]
 - (7) Records of the date and time that each deviation started and stopped and whether the deviation occurred during a period of startup, shutdown, or malfunction or during another period.
[40 CFR 63.10032(b)(4)]
- b. The Permittee shall keep the following records required in Table 7, 40 CFR 63, Subpart UUUUU to show continuous compliance with each applicable emission limit in Condition II.K.6:
[40 CFR 63.10032(c), Table 7 of 40 CFR Part 63, Subpart UUUUU]
- (1) All monitoring data and calculated averages for applicable limits;
 - (2) Periodic performance tune-ups of EGUs required under II.K.4.a; and
 - (3) Work practice standards required to be implemented under Conditions II.K.3.b and 4.
- c. For each EGU subject to an emission limit, the Permittee shall keep the following records:
- (1) The Permittee shall keep records of monthly fuel use by each EGU, including the type(s) of fuel and amount(s) used.
[40 CFR 63.10032(d)(1)]
 - (2) If the Permittee combusts non-hazardous secondary materials that have been determined not to be solid waste pursuant to 40 CFR 241.3(b)(1), the Permittee must keep a record which documents how the secondary material meets each of the legitimacy criteria. If the Permittee combusts a fuel that has been processed from a discarded non-hazardous secondary material pursuant to 40 CFR 241.3(b)(2), the Permittee shall keep records as to how the operations that produced the fuel satisfies the definition of processing in 40 CFR 241.2. If the fuel received a non-waste determination pursuant to the petition process submitted under 40 CFR 241.3(c), the Permittee shall keep a record which documents how the fuel satisfies the requirements of the petition process.
[40 CFR 63.10032(d)(2)]
- d. If the Permittee elects to average emissions consistent with Condition II.K.7.a.(7), the Permittee shall additionally keep a copy of the emissions averaging implementation plan required in Condition II.K.7.a.(7), including daily records of heat input or steam generation, as applicable,

and monitoring records consistent with 40 CFR 63.10022.

[40 CFR 63.10032(e)]

- e. The Permittee shall keep records of the occurrence and duration of each startup and/or shutdown.

[40 CFR 63.10032(f)]

- f. The Permittee shall keep records of the occurrence and duration of each malfunction of an operation (i.e., process equipment) or the air pollution control and monitoring equipment.

[40 CFR 63.10032(g)]

- g. The Permittee shall keep records of actions taken during periods of malfunction to minimize emissions in accordance with 40 CFR 63.10000(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.

[40 CFR 63.10032(h)]

- h. The Permittee shall keep records of the type(s) and amount(s) of fuel used during each startup or shutdown.

[40 CFR 63.10032(i)]

- i. All records shall be in a form suitable and readily available for expeditious review, according to 40 CFR 63.10(b)(1).

[40 CFR 63.10033(a)]

- j. The Permittee shall keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.

[40 CFR 63.10033(b)]

- k. The Permittee shall keep each record on site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report or record; thereafter these records shall be kept off site for the remaining 3 years.

[40 CFR 63.10033(c)]

L. Regional Haze State Implementation Plan

1. Emission Limitations

- a. PM₁₀

[40 CFR 52.145(e)(1)]

The Permittee shall not emit particulate matter below 10 micron size (PM₁₀) from Unit 1 and Unit 2 in excess of 0.030 lb/MMBtu.

- b. SO₂

[40 CFR 52.145(e)(1)]

The Permittee shall not allow the 30-day rolling average SO₂ emission rate from Unit 1 and Unit 2 to exceed 0.080 lb/MMBtu.

c. NO_x

[40 CFR 52.145(f)(3)(i)]

- (1) The Permittee shall not allow the 30-day rolling average NO_x emission rate from Unit 1 to exceed 0.065 lb/MMBtu.
- (2) The Permittee shall not allow the 30-day rolling average NO_x emission rate from Unit 2 to exceed 0.080 lb/MMBtu.

2. Compliance Dates

[40 CFR 52.145(f)(4)]

- a. The Permittee shall show compliance with the applicable PM₁₀ and SO₂ emission limits in Conditions II.L.1.a and b and the related compliance recordkeeping and reporting on issuance of this permit.
- b. The Permittee shall show compliance with the applicable NO_x emission limits in Condition II.L.1.c and the related requirements by December 5, 2017.

3. Compliance Determinations for PM₁₀

Compliance with the particulate matter emission limitation for each coal-fired unit shall be determined from annual performance stack tests.

[40 CFR 52.145(f)(6)]

- a. The Permittee shall conduct a annual stack test on each unit to measure PM₁₀ using EPA Method 5, in 40 CFR part 60, Appendix A, or Method 201A/202 in 40 CFR Part 51, Appendix M.
- b. The Permittee shall submit a test protocol to EPA and ADEQ a minimum of 30 days prior to the scheduled testing. The protocol shall identify which method(s) will be used to demonstrate compliance.
- c. Each test shall consist of three runs, with each run at least 120 minutes in duration and each run collecting a minimum sample of 60 dry standard cubic feet.
- d. Results shall be reported in lb/MMBtu using the calculation in 40 CFR Part 60 Appendix A Method 19.
- e. In addition to annual stack tests, the Permittee shall monitor particulate emissions for compliance with the emission limitations in accordance with the applicable Compliance Assurance Monitoring (CAM) plan developed and approved in accordance with 40 CFR Part 64.
- f. The averaging time for any other demonstration of the PM₁₀ compliance or exceedance shall be based on a 6-hour average.

4. Compliance Determination for SO₂

- a. The Permittee shall maintain, calibrate and operate a CEMS, in full

compliance with the requirements found at 40 CFR Part 75, to accurately measure SO₂, diluent, and stack gas volumetric flow rate from each unit.

[40 CFR 52.145(f)(5)(i)(A)]

- (1) All valid CEMS hourly data shall be used to determine compliance with the SO₂ emissions limit.
- (2) When the CEMS is out of control as defined in Part 75, that CEMS data shall be treated as missing data and not used to calculate the emission average.
- (3) Each required CEMS shall obtain valid data for at least 90 percent of the unit operating hours, on an annual basis.

b. The Permittee shall comply with the quality assurance procedures for CEMS found in 40 CFR Part 75.

[40 CFR 52.145(f)(5)(i)(B)]

- (1) In addition to these Part 75 requirements, relative accuracy test audits shall be calculated for the SO₂ pounds per hour measurement and the heat input measurement.
- (2) The CEMs monitoring data shall not be bias adjusted.
- (3) The inlet SO₂ and diluent monitors required by this rule shall also meet the Quality Assurance/Quality Control (QA/QC) requirements of Part 75. The testing and evaluation of the inlet monitors and the calculations of relative accuracy for lb/hr of SO₂ and heat input shall be performed each time the Part 75 CEMS undergo relative accuracy testing.

c. The Permittee shall calculate the 30-day rolling average SO₂ emission rate for each coal-fired unit in accordance with the following procedure:

[40 CFR 52.145(f)(5)(iii)]

- (1) Sum the total pounds of SO₂ emitted from the unit during the current boiler-operating day and the previous twenty-nine (29) boiler-operating days;

[40 CFR 52.145(f)(5)(iii)(A)]

- (2) Sum the total heat input to the unit in MMBtu during the current boiler-operating day and the previous twenty-nine (29) boiler-operating day; and

[40 CFR 52.145(f)(5)(iii)(A)]

- (3) Divide the total number of pounds of SO₂ emitted during the thirty (30) boiler-operating days by the total heat input during the thirty (30) boiler-operating days.

[40 CFR 52.145(f)(5)(iii)(A)]

- (4) A new 30-day rolling average SO₂ emission rate shall be calculated for each new boiler-operating day. Each 30-day rolling average SO₂ emission rate shall include all emissions and all heat input that occur during all periods within any boiler-operating day,

including emissions from startup, shutdown, and malfunction.

[40 CFR 52.145(f)(5)(iii)(A)]

- (5) If a valid SO₂ pounds per hour at the outlet of the FGD system or heat input is not available for any hour for a unit, that heat input and SO₂ pounds per hour shall not be used in the calculation of the 30-day rolling average.

[40 CFR 52.145(f)(5)(iii)(C)]

- (6) If both a valid inlet and outlet SO₂ lb/MMBtu and an outlet value of lb/hr of SO₂ are not available for any hour, that hour shall not be included in the efficiency calculation.

[40 CFR 52.145(f)(5)(iii)(D)]

5. Compliance Determinations for NO_x

- a. At all times after the compliance date, the Permittee shall maintain, calibrate and operate a CEMS, in full compliance with the requirements found at 40 CFR Part 75, to accurately measure NO_x, diluent, and stack gas volumetric flow rate from each unit.

[40 CFR 52.145(f)(5)(i)(A)]

- (1) All valid CEMS hourly data shall be used to determine compliance with the NO_x emissions limit.

- (2) When the CEMS is out of control as defined in Part 75, that CEMS data shall be treated as missing data and not used to calculate the emission average.

- (3) Each required CEMS shall obtain valid data for at least 90 percent of the unit operating hours, on an annual basis.

- b. The Permittee shall comply with the quality assurance procedures for CEMS found in 40 CFR Part 75.

[40 CFR 52.145(f)(5)(i)(B)]

- (1) In addition to these Part 75 requirements, relative accuracy test audits shall be calculated for the NO_x pounds per hour measurement and the heat input measurement.

- (2) The CEMs monitoring data shall not be bias adjusted.

- (3) The testing and evaluation of the inlet monitors and the calculations of relative accuracy for lb/hr of NO_x and heat input shall be performed each time the Part 75 CEMS undergo relative accuracy testing.

- c. The Permittee shall calculate the 30-day rolling average NO_x emission rate for each coal-fired unit in accordance with the following procedure:

[40 CFR 52.145(f)(5)(ii)]

- (1) Sum the total pounds of NO_x emitted from the unit during the current boiler-operating day and the previous twenty-nine (29) boiler operating days;

[40 CFR 52.145(f)(5)(ii)(B)]

- (2) Sum the total heat input to the unit in MMBtu during the current boiler-operating day and the previous twenty-nine (29) boiler operating day; and
[40 CFR 52.145(f)(5)(ii)(B)]
- (3) Divide the total number of pounds of NO_x emitted during the thirty (30) boiler-operating days by the total heat input during the thirty (30) boiler-operating days.
[40 CFR 52.145(f)(5)(iii)(B)]
- (4) A new 30-day rolling average NO_x emission rate shall be calculated for each new boiler-operating day. Each 30-day rolling average NO_x emission rate shall include all emissions and all emissions that occur during all periods within any boiler operating day, including emissions from startup, shutdown, and malfunction.
[40 CFR 52.145(f)(5)(iii)(B)]

6. Recordkeeping

The Permittee shall maintain the following records for at least five (5) years:
[40 CFR 52.145(f)(7)]

- a. All CEMS data, including the date, place, and time of sampling or measurement; parameters sampled or measured; and results.
- b. Daily 30-day rolling emission rates for SO₂ and NO_x for each unit, calculated in accordance with Conditions II.L.4.c and 6.c.
- c. Records of quality assurance and quality control activities for emissions measuring systems including, but not limited to, any records required by 40 CFR Part 75.
- d. Records of the relative accuracy test for hourly NO_x and SO₂ lb/hr measurement and hourly heat input measurement.
- e. Records of all major maintenance activities conducted on emission units, air pollution control equipment, and CEMS.
- f. Any other records required by 40 CFR Part 75.

7. Reporting

All reports and notifications listed below shall be submitted to the Director of Enforcement Division, U.S. EPA Region IX, at 75 Hawthorne Street, San Francisco, CA 94105.

[40 CFR 52.145(f)(8)]

- a. The Permittee shall notify EPA within two weeks after completion of installation of combustion controls or Selective Catalytic Reactors on any of the units subject to this section.
[40 CFR 52.145(f)(8)(i)]
- b. Within 30 days after the applicable compliance date(s) in Conditions

II.L.3. a and b and within 30 days of every second calendar quarter thereafter (i.e., semi-annually), the Permittee shall submit a report that lists the daily 30-day rolling emission rates for NO_x and SO₂ for each unit. Included in this report shall be the results of any relative accuracy test audit performed during the two preceding calendar quarters.

[40 CFR 52.145(f)(8)(ii)]

8. Equipment Operations

At all times, including periods of startup, shutdown, and malfunction, the Permittee shall, to the extent practicable, maintain and operate the unit including associated air pollution control equipment in a manner consistent with good air pollution control practices for minimizing emissions. Pollution control equipment shall be designed and capable of operating properly to minimize emissions during all expected operating conditions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Director, which may include, but is not limited to, monitoring results, review of operating and maintenance procedures, and inspection of the unit.

[40 CFR 52.145(f)(10)]

9. Permit Shield

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

Compliance with the conditions of this Part shall be deemed compliance with 40 CFR 52.145 (f).

M. Biomass Burning

The Permittee shall maintain monthly records of the amount of biomass burned, and the dates and times biomass is burned.

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. The Permittee shall burn only Number 2 fuel oil and used oil in the auxiliary boiler.
[A.A.C. R18-2-306.A.2]

2. The 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. The 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.

[A.A.C. R18-2-306.01.A and 331.A.3]

[Material Permit Conditions are defined by underline and italics]

4. **Monitoring, Reporting, and Recordkeeping**

a. The 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. The Permittee shall keep on record the liquid fuel specifications containing the following information for each shipment of fuel oil. Alternatively, the Permittee may keep records of the on-site fuel oil sampling analysis containing the following:

(1) The name of the fuel oil supplier.

(2) The heating value of the fuel oil;

(3) The density of the fuel oil;

(4) The ash content of the fuel oil;

(5) The sulfur content of the fuel oil from which the shipment came;

(6) The method used to determine the ash content of the fuel oil; and

(7) The method used to determine the sulfur content of the fuel oil.

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

5. **Permit Shield**

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

Compliance with the conditions of this Part shall be deemed compliance with A.A.C. R18-2-724.G.

C. Particulate Matter and Opacity

1. **Emission Limitations/ Standards**

a. **Particulate Matter & Opacity**

The 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]

- b. 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]

- c. The 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. The 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. The 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

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

Compliance with the conditions of this Part shall be deemed compliance with A.A.C. R18-2-724.B, C.1, J.

D. Sulfur Dioxide

1. Emission Limitations/Standards

- a. The 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, "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 the conditions of this Part shall be deemed compliance with A.A.C. R18-2-724.B and E.

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

E. National Emissions Standards for Hazardous Air Pollutants (NESHAP) - Requirements for Boilers

1. Applicability

This section is applicable to the auxiliary boiler identified in Attachment "C".

[40 CFR 63.7499(t & u)]

2. Definition of Limited Use Boiler

[40 CFR 63.7575]

Limited use boiler means any boiler that burns any amount of solid, liquid, or gaseous fuels and has a federally enforceable average annual capacity factor of no more than 10 percent.

3. Work Practice Standards

a. The Permittee shall complete a tune-up once in five years on the auxiliary boiler in accordance with 40 CFR 63.7540(a)(10). Subsequent tune-ups shall commence no more than 61 months after the initial tune-up. The tune-up shall be conducted as follows: [40 CFR 63.7500(c)]

(1) Inspect the burner, and clean or replace components of the burner as necessary. The Permittee may delay the burner inspection until the next scheduled unit shutdown. [40 CFR 63.7540(a)(10)(i)]

(2) Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment shall be consistent with the manufacturer's specifications, if available. [40 CFR 63.7540(a)(10)(ii)]

(3) Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (the Permittee may delay the inspection until the next scheduled unit shutdown). Units that produce electricity for sale may delay the inspection until the first outage, not to exceed 36 months from the previous inspection; [40 CFR 63.7540(a)(10)(iii)]

(4) Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any NO_x requirement to which the unit is subject; [40 CFR 63.7540(a)(10)(iv)]

(5) Measure the concentrations in the effluent stream of CO in parts

per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer; and

[40 CFR 63.7540(a)(10)(v)]

- (6) Maintain on-site and submit, if requested by the Director, an annual report containing the information in paragraphs (a)(10)(vi)(a) through (c) of this section,

[40 CFR 63.7540(a)(10)(vi)]

- (a) The concentrations of CO in the effluent stream in parts per million by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler or process heater;

[40 CFR 63.7540(a)(10)(vi)(A)]

- (b) A description of any corrective actions taken as a part of the tune-up; and

[40 CFR 63.7540(a)(10)(vi)(B)]

- (c) Types and amount of fuel used over the 12 months prior to tune up, but only if the unit was physically and legally capable of using more than one type of fuel during that period.

[40 CFR 63.7540(a)(10)(vi)(C)]

- b. Permit Shield

[A.A.C.R 18-2-325]

Compliance with the conditions of this Part shall be deemed compliance with 40 CFR Part 63.7500(c) and 7540(a)(10).

4. Recordkeeping Requirements

- a. The Permittee shall keep records of fuel use for the days the auxiliary boiler was operated.

[40 CFR 63.7525(k)]

- b. Permit Shield

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

Compliance with the conditions of this Section shall be deemed compliance with 40 CFR Part 63.7522(k).

5. Reporting Requirements

- a. The first 5-year compliance report must cover the period beginning January 31, 2016 and ending on December 31, 2020. Subsequent 5-year compliance reports will cover the applicable 5-year period from January 1 to December 31. Compliance reports must be postmarked or submitted to the Director no later than January 31. The report shall contain the

following information:

[40 CFR 63.7550(b)]

- (1) Company and Facility name and address;
[40 CFR 63.7550(c)(5)(i)]
- (2) Process unit information;
[40 CFR 63.7550(c)(5)(ii)]
- (3) Date of report and beginning and ending dates of the reporting period;
[40 CFR 63.7550(c)(5)(iii)]
- (4) The total operating hours during the reporting period; and
[40 CFR 63.7550(c)(5)(iv)]
- (5) Include the date of the most recent tune-up including the date of the most recent burner inspection if it was delayed until the next scheduled or unscheduled unit shutdown.
[40 CFR 63.7550(c)(5)(xiv)]

b. Permit Shield

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

Compliance with the conditions of this Part shall be deemed compliance with 40 CFR Part 63.7550(b) and (c).

IV. INTERNAL COMBUSTION ENGINES (ICE)

A. Applicability

This section applies to the emergency generator identified in the Equipment List, Attachment “C” of this permit.

B. Operational Limitation

1. The Permittee shall only burn diesel fuel in the ICEs 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. Applicability

This Section is applicable to ICEs marked “No” under the NSPS Applicability Column in the Equipment List, Attachment “C”.

2. Particulate Matter and Opacity

a. Emissions Limitations/Standards

- (1) 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]

- (2) 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]

- (3) For the purposes of Condition IV.C.2.a.(2), 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

- (1) 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]

- (2) The 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

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

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

3. 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

(1) 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]

(2) 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

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

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

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

1. Applicability

This section is applicable to ICEs marked “No” under the NSPS Applicability Column in the Equipment List, Attachment “C”.

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 Conditions IV.D.2.c.(1) and (2). If the engine is not operated according to Conditions IV.D.2.c.(1) and (2), the engine will not be considered an emergency engine and shall meet all requirements for non-emergency engines.

[40 CFR 63.6640 (f)]

- (1) 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.

- (2) 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.

- d. *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]

- e. 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)]

- f. 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]

- g. 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]

- h. 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)]

- e. The Permittee, for the emergency ICE subject to NSPS Subpart III in Condition IV.E below shall comply with the requirements of NESHAP ZZZZ by meeting requirements of NSPS Subpart III.

4. Permit Shield

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

Compliance with the conditions of this Part 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.

E. New Source Performance Standards (NSPS) Requirements

1. Applicability

This section is applicable to ICEs marked “Yes” under the NSPS Applicability Column in the Equipment List, Attachment “C”.

2. Voluntarily Accepted Limitations

a. Type of Fuel

[A.A.C. R18-2-306.01.A, -306.A.2, & -331.A.3.a]
[Material permit conditions are indicated by underline and italics]

The Permittee shall burn only diesel fuel in the emergency fire pump engine.

b. Operating Hours

[A.A.C. R18-2-306.01.A and -331.A.3.a]
[Material permit conditions are indicated by underline and italics]

The Permittee shall not operate the engine for more than 500 hours in a rolling twelve-month period.

c. Monitoring, Reporting and Recordkeeping requirements

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

The Permittee shall keep a monthly record of the hours of operation of the engine. At the end of each month, a 12-month rolling total of hours of operation of the engine shall be computed.

3. General Requirements

a. Operating Requirements

- (1) The Permittee shall operate and maintain the engine over its entire life according to the manufacturer's written instructions or procedures developed by the Permittee that are approved by the engine manufacturer. A copy of the instructions or procedures shall be kept onsite and made available to ADEQ upon request.

[40 CFR 60.4206, 4211(a), and A.A.C. R18-2-306.A.3]

- (2) The Permittee shall only change those emission related settings that are permitted by the manufacturer. [40 CFR 60.4211(a)]

- (3) The Permittee shall meet the requirements of 40 CFR parts 89, 94, or 1068, as they apply.
[40 CFR 60.4211(a)]
- (4) The engine must be installed and configured according to the manufacturer's emission-related specifications.
[40 CFR 60.4211(c)]
- (5) If the Permittee does not install, configure, operate, and maintain the engine according to the manufacturer's emission-related written instructions, or changes emission-related settings in a way that is not permitted by the manufacturer, the Permittee must demonstrate compliance as follows:
[40 CFR 60.4211(g)]
- (a) Keep a maintenance plan and records of conducted maintenance;
 - (b) To the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions; and
 - (c) Conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine is installed, configured, operated, and maintained in accordance with the manufacturer's emission related written instructions, or within 1 year after the Permittee changes emission-related settings in a way that is not permitted by the manufacturer.
- (6) Fuel Requirements
The engine shall use diesel fuel that meets the following requirements of 40 CFR 80.510(b):
[40 CFR 60.4207(b)]
- (a) Sulfur content: 15 ppm maximum; and
 - (b) A minimum cetane index of 40 or a maximum aromatic content of 35 volume percent.
- (7) Additional Emergency Engine Requirements
[40 CFR 60.4211(f), 60.4209(a), A.A.C. R18-2-306.A.3.c, -306.A.4, and -331.A.3.c]
[Material permit conditions are indicated by underline and italics]
- (a) *The Permittee shall install a non-resettable hour meter prior to startup of the engine.*
 - (b) Emergency engines may be operated for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State, or local government, the manufacturer, the vendor, or the insurance company associated with the engine.

- (c) The Permittee shall not operate the emergency engine for the purposes of maintenance checks and readiness testing for more than 100 hours per year unless the Permittee maintains records identifying the Federal, State, or local standards that require maintenance and testing of the engine beyond 100 hours per year. Copies of such records shall be provided to ADEQ upon request. The Permittee may operate the engine 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.
- (d) The Permittee may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the Permittee maintains records indicating that Federal, State, or local standards require maintenance and testing of the engine beyond 100 hours per year.
- (e) The Permittee shall only operate the emergency engine for emergency purposes, maintenance, and testing, and operation in non-emergency situations for 50 hours per year.

b. Emission Limitation and Standards

[40 CFR 60.4205(c)]

(1) NMHC + Nitrogen Oxides (NMHC + NO_x)

The Permittee shall limit the emissions of NMHC + NO_x to below 3.0 g/ hp-hr from the emergency engine.

(2) Particulate Matter (PM)

The Permittee shall limit the emission of PM to below 0.15 g/ hp-hr from the emergency engine.

c. Monitoring and Record Keeping Requirements

- (1) The Permittee shall comply by purchasing an engine certified to the emission standards in Condition IV.E.3.b. The engine shall be installed and configured according to the manufacturer's specifications.

[40 CFR 60.4211(c)]

- (2) The Permittee shall maintain a copy of engine certifications or other documentation demonstrating that the engine complies with the applicable standards in this Permit, and shall make the documentation available to ADEQ upon request.

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

- (3) The Permittee shall keep records of fuel supplier specifications. The specifications shall contain information regarding the name

of fuel supplier, sulfur content, and cetane index or aromatic content in the fuel. These records shall be made available to ADEQ upon request.

- (4) The Permittee shall maintain monthly records of engine operation. The records shall include the purpose of operation and the duration of time the engine was operated. The record shall identify whenever the operation of the engine was for emergency purposes.

[40 CFR 60.4214(b)]

4. Permit Shield

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

Compliance with the conditions of this Part 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.

V. COAL HANDLING

A. Applicability

This section applies to the Coal Handling and the Coal Mixing systems as listed in Equipment List, Attachment "C".

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]

The 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

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

Compliance with the condition of this Part shall be deemed compliance with A.A.C. R18-2-702.B.3.

C. Particulate Matter

1. Emission Limitations/Standards

- a. The 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:

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

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, the 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

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

Compliance with the conditions of this Part shall be deemed compliance with A.A.C R18-2-716.B, D, and E.

VI. LIMESTONE HANDLING

A. Applicability

This Section applies to the Upgraded Belt Conveyors (BC-101, BC-101A), New Belt Conveyors (BC-101B and B), Upgraded Transfer Tower (TT-1), New Transfer Tower (TT-

2), Dry Dust Collectors (DC-12 and DC-13), New Limestone Storage Bins A, B, & C, 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

- (1) 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)]

- (2) 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/PM₁₀ in excess of 0.005 grains per actual cubic feet.

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

b. Opacity

- (1) 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]

- (2) 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. R18-2-331.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 Dry Dust Collectors {DC-12 on Transfer Tower (TT-1) and 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. R18-2-306.01.A and -331.A.3.d & e]

[Material Permit Conditions are defined by underline and italics]

3. Monitoring Requirements

The Permittee shall conduct quarterly 30-minute visible emissions inspections using EPA Method 22 (40 CFR part 60, Appendix A-7) on the Transfer Tower

Dust Collectors (DC-12 and DC-13) and 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 dust collectors are 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 dust collector 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.

4. Recordkeeping and Reporting Requirements

a. The Permittee shall record each periodic inspection required under Condition VI.B.3, 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. 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.(1), including reports of opacity observations made using Method 9 to demonstrate compliance with Condition VI.B.1.b.(1).

[40 CFR 60.676(f)]

5. Permit Shield

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

Compliance with the conditions of this Part shall be deemed compliance with 40 CFR 60.672(a), (b), (f), 675(c)(2), 676(b), (f), and A.A.C R18-2-406.A.4.

VII. FLY ASH HANDLING, COAL ADDITIVE SODA ASH, AND CEMENT KILN DUST HANDLING

A. Applicability

This section applies to the Fly Ash Handling, Coal Additive Soda Ash, and Cement Kiln Dust Handling (Systems) listed in Equipment List, Attachment "C".

B. Opacity

1. Emission Limitations/ Standards

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

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

Compliance with the condition of this Part shall be deemed compliance with A.A.C. R18-2-702.B.3.

C. Particulate Matter

1. Emission Limitation/Standards

- a. The Permittee shall not cause, allow or permit the discharge of particulate matter into the atmosphere in any one hour from any systems (with process rate of 60,000 lbs/hr or less) operation in total quantities in excess of the amounts calculated by the following equation:

$$E = 4.1 * P^{0.67}$$

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 Permittee shall not cause, allow or permit the discharge of particulate matter into the atmosphere in any one hour from any systems (with process rate greater than 60,000 lbs/hr) 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.

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

- c. 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

At all times when these systems are operational, the Permittee shall maintain and operate the associated baghouses, water spray header, pugmill, and the mixer unloader used to minimize particulate matter emissions 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. The 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 [A.A.C. R18-2-325]

Compliance with the conditions of this Part shall be deemed compliance with A.A.C. R18-2-730.A.1 and B.

D. Odorous Materials

1. The 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. R18-2-730.0]
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 [A.A.C. R18-2-325]

Compliance with the conditions of this Part shall be deemed compliance with A.A.C. R18- 730.D and G.

VIII. COOLING TOWERS 1 AND 2

A. Applicability

This Section applies to Cooling Towers 1 and 2 listed in Equipment List, Attachment "C".

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.A of this Attachment. [A.A.C. R18-2-306.A.3.b]

3. Permit Shield

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

Compliance with the conditions of this Part shall be deemed compliance with A.A.C. R18-2-702.B.3.

C. Particulate Matter

1. Emission Limitation/Standards

- a. The Permittee shall not cause, allow or permit the discharge of particulate matter into the atmosphere in any one hour from any systems 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.

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

- 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. Permit Shield

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

Compliance with the conditions of this Part shall be deemed compliance with A.A.C. R18-2-730.A.1.b and B.

D. Odorous Materials

1. The 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

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

Compliance with the conditions of this Part shall be deemed compliance with A.A.C. R18-2-730.D and G.

IX. FUGITIVE DUST REQUIREMENTS

A. Applicability

This Section applies to any source of fugitive dust in the facility.

B. Particulate Matter and Opacity

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

1. Emission Limitations/Standards

- a. Opacity of emissions from any fugitive dust non-point source shall not be greater than 40% measured in accordance with the Arizona Testing Manual, Reference Method 9.

[A.A.C. R18-2-614]

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

- (1) Keep dust and other types of air contaminants to a minimum in an open area where construction operations, repair operations, demolition activities, clearing operations, leveling operations, or any earth moving or excavating activities are taking place, by good modern practices such as using an approved dust suppressant or adhesive soil stabilizer, paving, covering, landscaping, continuous wetting, detouring, barring access, or other acceptable means;

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

- (2) Keep dust to a minimum from driveways, parking areas, and vacant lots where motor vehicular activity occurs by using an approved dust suppressant, or adhesive soil stabilizer, or by paving, or by barring access to the property, or by other acceptable means;

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

- (3) Keep dust and other particulates to a minimum by employing dust suppressants, temporary paving, detouring, wetting down or by other reasonable means when a roadway is repaired, constructed, or reconstructed;

[A.A.C. R18-2-605.A]

- (4) Take reasonable precautions, such as wetting, applying dust suppressants, or covering the load when transporting material likely to give rise to airborne dust;

[A.A.C. R18-2-605.B]

- (5) Take reasonable precautions, such as the use of spray bars, wetting agents, dust suppressants, covering the load, and hoods when crushing, handling, or conveying material likely to give rise to airborne dust;

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

- (6) Take reasonable precautions such as chemical stabilization, wetting, or covering when organic or inorganic dust producing material is being stacked, piled, or otherwise stored;
[A.A.C. R18-2-607.A]
- (7) Operate stacking and reclaiming machinery utilized at storage piles at all times with a minimum fall of material, or with the use of spray bars and wetting agents;
[A.A.C. R18-2-607.B]
- (8) Any other method as proposed by the Permittee and approved by the Director.
[A.A.C. R18-2-306.A.3.c]

2. Air Pollution Control Requirements

Haul Roads and Storage Piles

Water, or an equivalent control, shall be used to control visible emissions from haul roads and storage piles.

[A.A.C. R18-2-306.A.2 and -331.A.3.d]

[Material Permit Condition is indicated by underline and italics]

3. Monitoring and Recordkeeping Requirements

- a. The Permittee shall maintain records of the dates on which any of the activities listed in Conditions IX.B.1.b.(1) through (8) were performed and the control measures that were adopted.
[A.A.C. R18-2-306.A.3.c]

b. Opacity Monitoring Requirements

- (1) A certified Method 9 observer shall conduct a monthly visual survey of visible emissions from the fugitive dust sources. The Permittee shall keep a record of the name of the observer, the date and location on which the observation was made, and the results of the observation.
- (2) If the observer sees a visible emission from a fugitive dust source that on an instantaneous basis appears to exceed applicable opacity standard, then the observer shall, if practicable, take a six-minute Method 9 observation of the visible emission.
 - (a) If the six-minute opacity of the visible emission is less than or equal to applicable opacity standard, the observer shall make a record of the following:
 - (i) Location, date, and time of the observation; and
 - (ii) The results of the Method 9 observation.
 - (b) If the six-minute opacity of the visible emission exceeds applicable opacity standard, then the Permittee shall do the following:

- (i) Adjust or repair the controls or equipment to reduce opacity to below the applicable standard; and
- (ii) Report it as an excess emission under Section XII.A of Attachment "A".

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

4. Permit Shield

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

Compliance with the conditions of this Part shall be deemed compliance with A.A.C. R18-2-604, -605, -606, -607, -608, -612, -614, and -702.B.3.

X. MOBILE SOURCE REQUIREMENTS

A. Applicability

The requirements of this Section 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 agricultural equipment used in normal farm operations. Mobile sources shall not include portable sources as defined in A.A.C. R18-2-101.90.

[A.A.C. R18-2-801.A]

B. Particulate Matter and Opacity

1. Emission Limitations/Standards

a. Off-Road Machinery

The Permittee shall not cause, allow, or permit to be emitted into the atmosphere from any off-road machinery, smoke for any period greater than ten consecutive seconds, the opacity of which exceeds 40%. Visible emissions when starting cold equipment shall be exempt from this requirement for the first ten minutes. Off-road machinery shall include trucks, graders, scrapers, rollers, and other construction and mining machinery not normally driven on a completed public roadway.

[A.A.C. R18-2-802.A and -802.B]

b. Roadway and Site Cleaning Machinery

- (1) The 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%. Visible emissions when starting cold equipment shall be exempt from this requirement for the first ten minutes.

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

- (2) The Permittee shall take reasonable precautions, such as the use of dust suppressants, before the cleaning of a 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.

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

- c. Unless otherwise specified, no mobile source shall emit smoke or dust the opacity of which exceeds 40%.

[A.A.C. R18-2-801.B]

2. Recordkeeping Requirement

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

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

3. Permit Shield

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

Compliance with the conditions of this Part shall be deemed compliance with A.A.C. R18-2-801, -802, and -804.

XI. OTHER PERIODIC ACTIVITIES

A. Abrasive Blasting

1. Particulate Matter and Opacity

a. Emission Limitations/Standards

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 approved by the Director.

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

b. Opacity

The Permittee shall not cause, allow or permit visible emissions from sandblasting or other abrasive blasting operations in excess of 20% opacity, as measured by EPA Reference Method 9.

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

2. Monitoring and Recordkeeping Requirement

Each time an abrasive blasting project is conducted, the Permittee shall make a record of the following:

- a. The date the project was conducted;

- b. The duration of the project; and
- c. Type of control measures employed.

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

3. Permit Shield

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

Compliance with the conditions of this Part shall be deemed compliance with A.A.C. R18-2-702.B.3 and -726.

B. Use of Paints

1. Volatile Organic Compounds

a. Emission Limitations/Standards

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

- (1) The Permittee shall not conduct or cause to be conducted 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]

- (2) The Permittee or their designated contractor shall not either:

- (a) Employ, apply, evaporate, or dry any architectural coating containing photochemically reactive solvents for industrial or commercial purposes; or
- (b) Thin or dilute any architectural coating with a photochemically reactive solvent.

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

- (3) For the purposes of Condition XI.B.1.a.(2), 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 Conditions XI.B.1.a.(3)(a) through (c), or which exceeds any of the following percentage composition limitations, referred to the total volume of solvent:

- (a) A combination of the following types of compounds having an olefinic or cyclo-olefinic type of unsaturation-hydrocarbons, alcohols, aldehydes, esters, ethers, or ketones: 5 percent.
- (b) A combination of aromatic compounds with eight or more carbon atoms to the molecule except ethylbenzene: 8 percent.
- (c) A combination of ethylbenzene, ketones having branched

hydrocarbon structures, trichloroethylene or toluene: 20 percent.

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

- (4) Whenever any organic solvent or any constituent of an organic solvent may be classified from its chemical structure into more than one of the groups of organic compounds described in Conditions XI.B.1.a.(3)(a) through (c), 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]

b. Monitoring and Recordkeeping Requirements

- (1) Each time a spray painting project is conducted, the Permittee shall make a record of the following:
- (a) The date the project was conducted;
 - (b) The duration of the project;
 - (c) Type of control measures employed;
 - (d) Material Safety Data Sheets for all paints and solvents used in the project; and
 - (e) The amount of paint consumed during the project.

- (2) Architectural coating and spot painting projects shall be exempt from the recordkeeping requirements of Condition XI.B.1.b(1).

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

c. Permit Shield

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

Compliance with the conditions of this Part shall be deemed compliance with A.A.C.R18-2-727.

2. Opacity

a. Emission Limitation/Standard

The Permittee shall not cause, allow or permit visible emissions from painting operations in excess of 20% opacity, as measured by EPA Reference Method 9.

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

b. Permit Shield

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

Compliance with the conditions of this Part shall be deemed compliance with A.A.C.R18-2-702.B.3.

C. Demolition/Renovation - Hazardous Air Pollutants

1. Emission Limitation/Standard

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

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

2. Monitoring and Recordkeeping Requirement

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

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

3. Permit Shield

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

Compliance with the conditions of this Part shall be deemed compliance with A.A.C. R18-2-1101.A.8.

ATTACHMENT "C": EQUIPMENT LIST

Type	Maximum Capacity	Number of Equipment	Model	Serial #/ Equipment #	Installation/ Manufacturing Date	Subject to	
						NSPS	NESHAP
Steam Generation							
Unit 1 Boiler	4,719 MMBtu/hr	1	Riley Stoker Corporation	3901	7/25/1974	Yes	Yes
Unit 2 Boiler	4,719 MMBtu/hr	1	Riley Stoker Corporation	3902	7/25/1974	Yes	Yes
Auxiliary Boiler	157 MMBtu/hr	1	Combustion Engineering	CFAABOIL	7/25/1974	No	Yes
Coal Pulverizer	145,000 lbs/hr	3	Riley Stoker Corporation	1BAFMILL A, B, C	7/25/1974	No	No
Coal Pulverizer	145,000 lbs/hr	3	Riley Stoker Corporation	2BAFMILL A, B, C	7/25/1974	No	No
Pulverizer Feeder Unit 1	72,500 lbs/hr	3	Riley Stoker Corporation	1BAFFDR 1A1, 1A2, 1B1	7/25/1974	No	No
Pulverizer Feeder Unit 1	72,500 lbs/hr	3	Riley Stoker Corporation	1BAFFDR 1B2, 1C1, 1C2	7/25/1974	No	No
Pulverizer Feeder Unit 2	72,500 lbs/hr	3	Riley Stoker Corporation	2BAFFDR 2A1, 2A2, 2B1	7/25/1974	No	No
Pulverizer Feeder Unit 2	72,500 lbs/hr	3	Riley Stoker Corporation	2BAFFDR 2B2, 2C1, 2C2	7/25/1974	No	No

Type	Maximum Capacity	Number of Equipment	Model	Serial #/ Equipment #	Installation/ Manufacturing Date	Subject to	
						NSPS	NESHAP
Cooling Tower 1	179,900 gallons/hr	1	Marley Company 664- 4-14	1DABSTRU	7/25/1974	No	No
Cooling Tower 2	179,900 gallons/hr	1	Marley Company 664- 4-14	2DABSTRU	7/25/1974	No	No
Hot Side Electrostatic Precipitator	2,800,000 acfm (Design Flow/unit)	2	Joy-Western	1JPAPREC0002 1JPAPREC0005	7/25/1974	No	No
Hot Side Electrostatic Precipitator	2,800,000 acfm (Design Flow/unit)	2	Joy-Western	2JPAPREC0080 1JPAPREC0082	7/25/1974	No	No
Sulfur Dioxide Absorbers	2,028,184 acfm (Design Flow/unit)	2	Alstom	1WRAABS 2WRAABS	4/12/2012 5/22/2011	No	No
Low NOx Burners	4,719 MMBtu/ hr	24 per boiler	Babcock Power	1BAEBURNNEFR 2BAEBURNNEFR	5/19/2009 5/20/2011	No	No
Selective Catalyst Reduction System	3,096,256 acfm Design	1	Riley Power	Contract # 10051	May, 2014	No	No
Oxidizer Application System	56 gph	2	Alstom	TBD	Late 2011	No	No

Type	Maximum Capacity	Number of Equipment	Model	Serial #/ Equipment #	Installation/ Manufacturing Date	Subject to	
						NSPS	NESHAP
Coal Handling System							
Rotary Car Dumper	100,00 lbs	1	Heyl & Patterson	CJKADUMPRCD	7/24/1974	No	No
Track Hopper	500 tons	1	Heyl & Patterson	CJKAHOPP	7/24/1974	No	No
Coal Crusher	1,200 tph	2	Pennsylvania Crusher	CJKARUSACL, CJKAROSBCL	7/24/1974	No	No
Track Hopper Feeder	750 tph	4	FMC	CJKAFDRV1, 2, 3, 4	7/24/1974	No	No
Belt Conveyor BC-2A	3,000 tph	1	FMC	CJKCONVB2A	7/24/1974	No	No
Belt Conveyor BC-4	3,000 tph	1	FMC	CJKCONVBC4	7/24/1974	No	No
Belt Conveyor BC-5	1,200 tph	1	FMC	CJKCONVBC5	7/24/1974	No	No
Belt Conveyor BC-6	1,200 tph	1	FMC	CJKCONVBC6	7/24/1974	No	No
Belt Conveyor BC-7A & 7B	1,200 tph	2	FMC	CJKCONVB7A, 7B	7/24/1974	No	No

Type	Maximum Capacity	Number of Equipment	Model	Serial #/ Equipment #	Installation/ Manufacturing Date	Subject to	
						NSPS	NESHAP
Belt Conveyor BC-8A & 8B	1.200 tph	2	FMC	2JKCONVB8A, 8B	7/24/1974	No	No
Belt Conveyor BC-9A & 9B	1.200 tph	2	FMC	1JKCONVB9A, 9B	7/24/1974	No	No
Belt Conveyor BC-10A & 10B	1.200 tph	2	FMC	2JKCONVB10A, 10B	7/24/1974	No	No
Belt Conveyor BC-11	1.200 tph	1			8/1/2012	No	No
Belt Conveyor BC-12	1.200 tph	1			8/1/2012	No	No
Emergency Hopper	280 tons	1	FMC	CJKAHOPPRCL	7/24/1974	No	No
Emergency Hopper Feeder	1,000 tons	2	FMC	CJKAFDRAER CJKAHDRBER	7/24/1974	No	No
Crusher Surge Bin	345 tons	1	FMC	CJKABINBNC	7/24/1974	No	No
Surge Bin Feeder	1,200 tons	2	FMC	CJKAFDRASB CJKAHDRBSB	7/24/1974	No	No
Coal Sampling System		1	FMC			No	No

Type	Maximum Capacity	Number of Equipment	Model	Serial #/ Equipment #	Installation/ Manufacturing Date	Subject to	
						NSPS	NESHAP
Coal Silos	825 tons	3	FMC	1JKASILO1A, 1B, 1C	7/24/1974	No	No
Coal Silos	825 tons	3	FMC	2JKASILO2A, 2B, 2C	7/24/1974	No	No
Sampling Building Dust collector, CM1	7,200 cfm	1	FMC				
Dust Extractor 2, DC-2	17,000 cfm	1	Engart	CJKABACDDC2	7/24/1974	No	No
Dust Extractor 3, DC-3	22,000 cfm	1	Engart	1JKACOLLDC3	7/24/1974	No	No
Dust Extractor 4, DC-4	22,000 cfm	1	Engart	2JKACOLLDC4	7/24/1974	No	No
Dust Extractor 5, DC-5	6,000 cfm	1	Engart	1JKACOLLDC5	7/24/1974	No	No
Dust Extractor 6, DC-17	5,250 cfm	1	Tri-Mer	40859	12/1/2012	No	No
Dust Extractor 7, DC-18	5,250 cfm	1	Tri-Mer	40860	12/1/2012	No	No

Type	Maximum Capacity	Number of Equipment	Model	Serial #/ Equipment #	Installation/ Manufacturing Date	Subject to	
						NSPS	NESHAP
Coal Mixing System							
Belt Conveyor, BC-3A	3,000 tph	1	Continental Conveyor and Equipment	CJKACONVB3A	7/24/1974	No	No
Belt Conveyor, BC-3B	1,200 tph	1	Continental Conveyor and Equipment	CJKAFCONVB3B	7/24/1974	No	No
Belt Conveyor, BC-3C	1,200 tph	1	Continental Conveyor and Equipment	CJKAFCONVB3C	7/24/1974	No	No
Belt Feeder CMI	1,200 tph	1		CJKACONVCM I	7/24/1974	No	No
Transfer Hopper CMI	40 tons	1		CJKAHOPPXFR	7/24/1974	No	No
Coal Storage Pile	1,000,000 tons	2		CJKAPILECL		No	No
Rotary Plow Feeders	600 tph	3	Continental Conveyor and Equipment	CJKAFDRCM 1, M2, M3, M4	7/24/1974	No	No
Coal Crusher	1,200 tph	1				No	No
Traveling Boom Stacker	3,000 tph	1	Stephens- Adamson	CJKASTACCL	7/24/1974	No	No

Type	Maximum Capacity	Number of Equipment	Model	Serial #/ Equipment #	Installation/ Manufacturing Date	Subject to	
						NSPS	NESHAP
Fly Ash Handling System							
Fly Ash Storage Silos	62,800 ft ³	2	Allen-Shermann-Hoff	1JNASILOFAS 2JNASILOFAS	7/24/1974	No	No
Fly Ash Storage Silos Dust Collector, DC-7A	2375 cfm	5	Flex-Kleen	IJNAFLTRAEB – A, B, C, D, E	7/24/1974	No	No
Fly Ash Storage Silos Dust Collector, DC-7B	2375 cfm	5	Flex-Kleen	2JNAFLTRAEB – A, B, C, D, E	7/24/1974	No	No
Fly Ash Receiving Silos Dust Collector, DC-8	15,000 cfm	1	Scientific	Cjnamrtdc1	01/01/2012	No	No
Limestone Handling System							
Limestone Truck Unloading Hopper	30 tons	1	McNally Pittsburg	CJSAHOPPTUL	7/24/1974	Yes	No
Limestone Truck Unloading Hopper Feeder	200 tons	1	Marathon Electric Mfg.	C-M-JS-R-5910	6/23/2009	Yes	No

Type	Maximum Capacity	Number of Equipment	Model	Serial #/ Equipment #	Installation/ Manufacturing Date	Subject to	
						NSPS	NESHAP
Limestone Belt Conveyor, BC-101	200 tons	1	Varo	C-M-JS-R-5911	6/23/2009	Yes	No
Limestone Belt Conveyor, BC-101 A	200 tons	1	Varo	C-M-JS-R-5914	6/23/2009	Yes	No
Limestone Belt Conveyor, BC-101 B	200 tons	1	Varo			Yes	No
Limestone Belt Conveyor B	200 tons	1				Yes	No
Limestone Ball Mill	18 tph	1				Yes	No
Limestone Transfer Tower, TT-1 Dust Collector, DC-12	3,000 cfm	1	SDC	SL Series (SL2-8)	2013	Yes	No
Limestone Transfer Tower, TT-2 Dust Collector, DC-13	3,000 cfm	1	SDC	LP Series	2013	Yes	No
Limestone Storage Bin A	73 tons	1		C-M-JS-R-5917	6/23/2009	Yes	No

Type	Maximum Capacity	Number of Equipment	Model	Serial #/ Equipment #	Installation/ Manufacturing Date	Subject to	
						NSPS	NESHAP
Limestone Storage Bin B	73 tons	1		C-M-JS-R-5921	6/23/2009	Yes	No
Limestone Storage Bin C	250 tons	1				Yes	No
Limestone Storage Bin Vent Filter, DC-14	600 SCFM	1	Met-Pro Flex Kleen Division	11918	6/23/2009	Yes	No
Limestone Storage Bin Vent Filter, DC-15	600 SCFM	1	Met-Pro Flex Kleen Division	11918	6/23/2009	Yes	No
Limestone Storage Bin Vent Filter, DC-16	1,000 SCFM	1				Yes	No
Soda Ash Handling System							
Coal Additive Soda Ash Silo	3,000 ft ³	1	CHEMCO Systems, L.P.	SILO-12	01/01/2003	No	No
Coal Additive Soda Ash Silo Baghouse	750 SCFM	1	CHEMCO Systems, L.P.	DC-9	01/01/2013	No	No

Type	Maximum Capacity	Number of Equipment	Model	Serial #/ Equipment #	Installation/ Manufacturing Date	Subject to	
						NSPS	NESHAP
Cement Kiln Dust Handling System							
CKD Storage Silos	150 tons	2			08/2012	No	No
CKD Silo vents	2,340 acfm	2	C&W Mfg & Sales Co	CP-LPR-8_S	08/2012	No	No
Powdered Activated Carbon Handling System							
PAC Storage Silos (existing)	750 cfm	4	Merrick		04/2016	No	No
PAC Storage Silos (future)	750 cfm	2	TBD	TBD		No	No
Other Control Equipment							
Lime Silo Baghouse- Water Treatment	300 SCFM	1	Peabody	CARACOOLL135	7/24/1974	No	No
Soda Ash Silo Baghouse- Water Treatment	300 SCFM	1	Peabody	CARACOOLL134	7/24/1974	No	No
Weld Shop Baghouse		2	Torit	UNIT1 1G569313 UNIT2 1G569313		No	No

Type	Maximum Capacity	Number of Equipment	Model	Serial #/ Equipment #	Installation/ Manufacturing Date	Subject to	
						NSPS	NESHAP
Paint Booth Filter		1		CZAAFLTR0001		No	No
Emergency Internal Combustion Engines							
Fire Booster Pump	800 hp	1	Cummins	10644000	1977	No	Yes
Emergency Generator	1,177hp	1	Detroit Diesel	501681	1978	No	Yes
Emergency Fire Pump	266 hp	1	Caterpillar	64Z09303	1977	No	Yes
Emergency Fire Pump	305 hp	1	Cummins/ CFP9E-F30		2013	Yes	Yes
Miscellaneous Equipment							
Diesel Tank	1,023,750 gallons	1	n/a	n/a	1977	No	No

CONTINUOUS MONITORING SYSTEM FOR UNIT 1 AND UNIT 2

Steam Unit	Monitors				
	NO _x	SO ₂	CO ₂	Opacity	Flow
Unit 1	TEI 42i	TEI 43i	TEI 410i	TML Lighthawk-560	EMRC DP-75
Unit 2	TEI 42i	TEI 43i	TEI 410i	TML Lighthawk-560	EMRC DP-75

Steam Unit	CO Monitor	HG Sampler	PM Monitor	Inlet SO ₂	Inlet CO ₂
Unit 1	TEI 48i	ESC Hg-324K Automated Mercury Sampler	Sick Maihak FWE 200	TEI 43i	TEI 410i
Unit 1	TEI 48i	ESC-324K Automated Mercury Sampler	Sick Maihak FWE 200	TEI 43i	TEI410i

ATTACHMENT "D": PHASE II ACID RAIN PROVISIONS

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 & 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. SO₂ Allowances¹ Allocations and NO_x Requirements for Each Affected Unit

		2016	2017	2018	2019	2020	2021	2022
Unit 1 and 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	CGS is now subject to the applicable emission limitation, under 40 CFR 76.7(a)(2), of 0.46 lb/MMBtu. 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.						

¹ 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 SO₂ 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 Alternate Designated Representative Dan Bevier on 06/02/2016.