



MAJOR SOURCE OPERATING PERMIT

Permittee: **Alabama Power Company**
Facility Name: **Barry Steam Electric Generating Plant**
Facility No.: 503-1001
Location: Bucks, Mobile County, Alabama

In accordance with and subject to the provisions of the Alabama Air Pollution Control Act of 1971, Ala. Code §§ 22 28 1 to 22 28 23, as amended, the Alabama Environmental Management Act, Ala. Code §§ 22 22A 1 to 22 22A 17, as amended, and rules and regulations adopted there under, and subject further to the conditions set forth in this permit, the Permittee is hereby authorized to construct, install and use the equipment, device or other article described above.

*Pursuant to the **Clean Air Act of 1990**, all conditions of this permit are federally enforceable by EPA, the Alabama Department of Environmental Management, and citizens in general. Those provisions which are not required under the **Clean Air Act of 1990** are considered to be state permit provisions and are not federally enforceable by EPA and citizens in general. Those provisions are contained in separate sections of this permit.*

Issuance Date: *DRAFT*
Expiration Date: *XXXX*

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General Permit Provisos

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<p>1. <u>Transfer</u></p> <p>This permit is not transferable, whether by operation of law or otherwise, either from one location to another, from one piece of equipment to another, or from one person to another, except as provided in Rule 335-3-16-.13(1)(a)5.</p> <p>2. <u>Renewals</u></p> <p>An application for permit renewal shall be submitted at least six (6) months, but not more than eighteen (18) months, before the date of expiration of this permit.</p> <p>The source for which this permit is issued shall lose its right to operate upon the expiration of this permit unless a timely and complete renewal application has been submitted within the time constraints listed in the previous paragraph.</p> <p>3. <u>Severability Clause</u></p> <p>The provisions of this permit are declared to be severable and if any section, paragraph, subparagraph, subdivision, clause, or phrase of this permit shall be adjudged to be invalid or unconstitutional by any court of competent jurisdiction, the judgment shall not affect, impair, or invalidate the remainder of this permit, but shall be confined in its operation to the section, paragraph, subparagraph, subdivisions, clause, or phrase of this permit that shall be directly involved in the controversy in which such judgment shall have been rendered.</p> <p>4. <u>Compliance</u></p> <p>(a) The permittee shall comply with all conditions of ADEM Admin. Code 335-3. Noncompliance with this permit will constitute a violation of the Clean Air Act of 1990 and ADEM Admin. Code 335-3 and may result in an enforcement action; including but not limited to, permit termination, revocation and reissuance, or modification; or denial of a permit renewal application by the permittee.</p> <p>(b) The permittee shall not use as a defense in an enforcement action that maintaining compliance with conditions of this permit would have required halting or reducing the permitted activity.</p>	<p>Rule 335-3-16-.02(6)</p> <p>Rule 335-3-16-.12(2)</p> <p>Rule 335-3-16-.05(e)</p> <p>Rule 335-3-16-.05(f)</p> <p>Rule 335-3-16-.05(g)</p>

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<p>5. <u>Termination for Cause</u></p> <p>This permit may be modified, revoked, reopened, and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance will not stay any permit condition.</p> <p>6. <u>Property Rights</u></p> <p>The issuance of this permit does not convey any property rights of any sort, or any exclusive privilege.</p> <p>7. <u>Submission of Information</u></p> <p>The permittee must submit to the Department, within 30 days or for such other reasonable time as the Department may set, any information that the Department may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. Upon receiving a specific request, the permittee shall also furnish to the Department copies of records required to be kept by this permit.</p> <p>8. <u>Economic Incentives, Marketable Permits, and Emissions Trading</u></p> <p>No permit revision shall be required, under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in this permit.</p> <p>9. <u>Certification of Truth, Accuracy, and Completeness:</u></p> <p>Any application form, report, test data, monitoring data, or compliance certification submitted pursuant to this permit shall contain 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.</p> <p>10. <u>Inspection and Entry</u></p> <p>Upon presentation of credentials and other documents as may be required by law, the permittee shall allow authorized representatives of the Alabama Department of</p>	<p>Rule 335-3-16-.05(h)</p> <p>Rule 335-3-16-.05(i)</p> <p>Rule 335-3-16-.05(j)</p> <p>Rule 335-3-16-.05(k)</p> <p>Rule 335-3-16-.07(a)</p> <p>Rule 335-3-16-.07(b)</p>

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<p>Environmental Management and EPA to conduct the following:</p> <ul style="list-style-type: none"> (a) Enter upon the permittee's premises where a source is located or emissions-related activity is conducted, or where records must be kept pursuant to the conditions of this permit; (b) Review and/or copy, at reasonable times, any records that must be kept pursuant to the conditions of this permit; (c) Inspect, at reasonable times, this facility's equipment (including monitoring equipment and air pollution control equipment), practices, or operations regulated or required pursuant to this permit; (d) Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or other applicable requirements. 	
<p>11. <u>Compliance Provisions</u></p> <ul style="list-style-type: none"> (a) The permittee shall continue to comply with the applicable requirements with which the company has certified that it is already in compliance. (b) The permittee shall comply in a timely manner with applicable requirements that become effective during the term of this permit. 	<p>Rule 335-3-16-.07(c)</p>
<p>12. <u>Compliance Certification</u></p> <p>A compliance certification shall be submitted yearly by November 30 covering the compliance period from October 1 through September 30 unless more frequent periods are specified according to the specific rule governing the source or required by the Department.</p> <ul style="list-style-type: none"> (a) The compliance certification shall include the following: <ul style="list-style-type: none"> (1) The identification of each term or condition of this permit that is the basis of the certification; (2) The compliance status; (3) The method(s) used for determining the compliance status of the source, currently and over the reporting period consistent with Rule 	<p>Rule 335-3-16-.07(e)</p>

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<p>335-3-16-.05(c) (Monitoring and Recordkeeping Requirements);</p> <p>(4) Whether the method(s) or other means used to assure compliance provided continuous or intermittent data;</p> <p>(5) Such other facts as the Department may require to determine the compliance status of the source;</p> <p>(b) The compliance certification shall be submitted to :</p> <p style="text-align: center;">Alabama Department of Environmental Management Air Division P.O. Box 301463 Montgomery, AL 36130-1463</p> <p style="text-align: center;">and to:</p> <p style="text-align: center;">Enforcement and Compliance Assurance Division EPA Region 4 Atlanta Federal Center 61 Forsyth Street, SW Atlanta, GA 30303</p>	
<p>13. <u>Reopening for Cause</u></p> <p>Under any of the following circumstances, this permit will be reopened prior to the expiration of the permit:</p> <p>(a) Additional applicable requirements under the Clean Air Act of 1990 become applicable to the permittee with a remaining permit term of three (3) or more years. Such a reopening shall be completed not later than eighteen (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 this permit is due to expire.</p> <p>(b) 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 this permit.</p> <p>(c) The Department or EPA determines that this permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of this</p>	<p>Rule 335-3-16-.13(5)</p>

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<p>permit.</p> <p>(d) The Administrator or the Department determines that this permit must be revised or revoked to assure compliance with the applicable requirements.</p>	
<p>14. <u>Additional Rules and Regulations</u></p> <p>This permit is issued on the basis of Rules and Regulations existing on the date of issuance. In the event additional Rules and Regulations are adopted, it shall be the permit holder's responsibility to comply with such rules.</p>	<p>§22-28-16(d), <u>Code of Alabama 1975</u>, as amended</p>
<p>15. <u>Equipment Maintenance or Breakdown</u></p> <p>(a) Unless otherwise specified in the unit-specific provisos of this permit, in the case of shutdown of air pollution control equipment (which operates pursuant to any permit issued by the Director) for necessary scheduled maintenance, the intent to shut down such equipment shall be reported to the Director at least twenty-four (24) hours prior to the planned shutdown, unless such shutdown is accompanied by the shutdown of the source which such equipment is intended to control. Such prior notice shall include, but is not limited to the following:</p> <ol style="list-style-type: none"> (1) Identification of the specific facility to be taken out of service as well as its location and permit number; (2) The expected length of time that the air pollution control equipment will be out of service; (3) The nature and quantity of emissions of air contaminants likely to occur during the shutdown period; (4) Measures such as the use of off-shift labor and equipment that will be taken to minimize the length of the shutdown period; (5) The reasons that it would be impossible or impractical to shut down the source operation during the maintenance period. <p>(b) Unless otherwise specified in the unit-specific provisos of this permit, in the event that there is a breakdown of equipment or upset of process in such a manner as to cause, or is expected to cause,</p>	<p>Rule 335-3-1-.07(1), (2)</p>

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<p>increased emissions of air contaminants which are above an applicable standard, the person responsible for such equipment shall notify the Director within 24 hours or the next working day and provide a statement giving all pertinent facts, including the estimated duration of the breakdown. The Director will be notified when the breakdown has been corrected.</p>	
<p>16. <u>Operation of Capture and Control Devices</u></p> <p>Unless otherwise specified in the unit-specific provisos of this permit, all air pollution control devices and capture systems for which this permit is issued shall be maintained and operated at all times in a manner so as to minimize the emissions of air contaminants. Procedures for ensuring that the above equipment is properly operated and maintained so as to minimize the emission of air contaminants shall be established.</p>	<p>§22-28-16(d), <u>Code of Alabama 1975</u>, as amended</p>
<p>17. <u>Obnoxious Odors</u></p> <p>This permit is issued with the condition that, should obnoxious odors arising from the plant operations be verified by Air Division inspectors, measures to abate the odorous emissions shall be taken upon a determination by the Alabama Department of Environmental Management that these measures are technically and economically feasible.</p>	<p>Rule 335-3-1-.08</p>
<p>18. <u>Fugitive Dust</u></p> <p>(a) Reasonable precautions shall be taken to prevent fugitive dust emanating from plant roads, grounds, stockpiles, screens, dryers, hoppers, ductwork, etc.</p> <p>(b) Plant or haul roads and grounds will be maintained in the following manner so that dust will not become airborne:</p> <p>(1) By the application of water any time the surface of the road is sufficiently dry to allow the creation of dust emissions by the act of wind or vehicular traffic;</p> <p>(2) By reducing the speed of vehicular traffic to a point below that at which dust emissions are created;</p>	<p>Rule 335-3-4-.02</p>

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<p>(3) By paving;</p> <p>(4) By the application of binders to the road surface at any time the road surface is found to allow the creation of dust emissions; or</p> <p>(5) By any combination of the above methods which results in the prevention of dust becoming airborne from the road surface.</p> <p>Should one, or a combination, of the above methods fail to adequately reduce airborne dust from plant or haul roads and grounds, alternative methods shall be employed, either exclusively or in combination with one or all of the above control techniques, so that dust will not become airborne. Alternative methods shall be approved by the Department prior to utilization.</p>	
<p>19. <u>Additions and Revisions</u></p> <p>Any modifications to this source shall comply with the modification procedures in Rules 335-3-16-.13 or 335-3-16-.14.</p>	<p>Rule 335-3-16-.13 and .14</p>
<p>20. <u>Recordkeeping Requirements</u></p> <p>(a) Records of required monitoring information of the source shall include the following:</p> <p>(1) The date, place, and time of all sampling or measurements;</p> <p>(2) The date analyses were performed;</p> <p>(3) The company or entity that performed the analyses;</p> <p>(4) The analytical techniques or methods used;</p> <p>(5) The results of all analyses; and</p> <p>(6) The operating conditions that existed at the time of sampling or measurement.</p> <p>(b) Retention of records of all required monitoring data and support information of the source for a period of at least 5 years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation and copies of all reports required by</p>	<p>Rule 335-3-16-.05(c)(2)</p>

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the permit.	
<p>21. <u>Reporting Requirements</u></p> <p>(a) Reports to the Department of any required monitoring shall be submitted at least every 6 months. All instances of deviations from permit requirements must be clearly identified in said reports. All required reports must be certified by a responsible official consistent with Rule 335-3-16-.04(9).</p> <p>(b) Deviations from permit requirements shall be reported within 48 hours or 2 working days of such deviations, including those attributable to upset conditions as defined in the permit. The report will include the probable cause of said deviations, and any corrective actions or preventive measures that were taken.</p>	Rule 335-3-16-.05(c)(3)
<p>22. <u>Emission Testing Requirements</u></p> <p>Each point of emission which requires testing will be provided with sampling ports, ladders, platforms, and other safety equipment to facilitate testing performed in accordance with procedures established by Part 60 of Title 40 of the Code of Federal Regulations, as the same may be amended or revised.</p> <p>The Air Division must be notified in writing at least 10 days in advance of all emission tests to be conducted and submitted as proof of compliance with the Department's air pollution control rules and regulations.</p> <p>To avoid problems concerning testing methods and procedures, the following shall be included with the notification letter:</p> <ol style="list-style-type: none"> 1. The date the test crew is expected to arrive, the date and time anticipated of the start of the first run, how many and which sources are to be tested, and the names of the persons and/or testing company that will conduct the tests. 2. A complete description of each sampling train to be used, including type of media used in determining gas stream components, type of probe lining, type of filter media, and probe cleaning method and solvent to be used (if test procedures requires probe 	<p>Rule 335-3-1-.05(3) and Rule 335-3-1-.04(1)</p> <p>Rule 335-3-1-.04</p>

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<p>cleaning).</p> <ol style="list-style-type: none"> 3. A description of the process(es) to be tested including the feed rate, any operating parameters used to control or influence the operations, and the rated capacity. 4. A sketch or sketches showing sampling point locations and their relative positions to the nearest upstream and downstream gas flow disturbances. <p>A pretest meeting may be held at the request of the source owner or the Air Division. The necessity for such a meeting and the required attendees will be determined on a case-by-case basis.</p> <p>All test reports must be submitted to the Air Division within 30 days of the actual completion of the test unless an extension of time is specifically approved by the Air Division.</p>	<p>Rule 335-3-1-.04</p>
<p>23. <u>Payment of Emission Fees</u></p> <p>Annual emission fees shall be remitted each year according to the fee schedule in ADEM Admin. Code r. 335-1-7-.04.</p>	<p>Rule 335-1-7-.04</p>
<p>24. <u>Other Reporting and Testing Requirements</u></p> <p>Submission of other reports regarding monitoring records, fuel analyses, operating rates, and equipment malfunctions may be required as authorized in the Department's air pollution control rules and regulations. The Department may require emission testing at any time.</p>	<p>Rule 335-3-1-.04(1)</p>
<p>25. <u>Title VI Requirements (Refrigerants)</u></p> <p>Any facility having appliances or refrigeration equipment, including air conditioning equipment, which use Class I or Class II ozone-depleting substances as listed in 40 CFR Part 82, Subpart A, Appendices A and B, shall service, repair, and maintain such equipment according to the work practices, personnel certification requirements, and certified recycling and recovery equipment specified in 40 CFR Part 82, Subpart F.</p> <p>No person shall knowingly vent or otherwise release any Class I or Class II substance into the environment during the repair, servicing, maintenance, or disposal of any device except as provided in 40 CFR Part 82, Subpart F.</p>	<p>40 CFR 82</p>

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<p>The responsible official shall comply with all reporting and recordkeeping requirements of 40 CFR 82.166. Reports shall be submitted to the US EPA and the Department as required.</p>	
<p>26. <u>Chemical Accidental Prevention Provisions</u></p> <p>If a chemical listed in Table 1 of 40 CFR Part 68.130 is present in a process in quantities greater than the threshold quantity listed in Table 1, then:</p> <ul style="list-style-type: none"> (a) The owner or operator shall comply with the provisions in 40 CFR Part 68. (b) The owner or operator shall submit one of the following: <ul style="list-style-type: none"> (1) A compliance schedule for meeting the requirements of 40 CFR Part 68 by the date provided in 40 CFR Part 68 § 68.10(a) or, (2) A certification statement that the source is in compliance with all requirements of 40 CFR Part 68, including the registration and submission of the Risk Management Plan. 	<p>40 CFR Part 68</p>
<p>27. <u>Display of Permit</u></p> <p>This permit shall be kept under file or on display at all times at the site where the facility for which the permit is issued is located and will make the permit readily available for inspection by any or all persons who may request to see it.</p>	<p>Rule 335-3-14-.01(1)(d)</p>
<p>28. <u>Circumvention</u></p> <p>No person shall cause or permit the installation or use of any device or any means which, without resulting in the reduction in the total amount of air contaminant emitted, conceals or dilutes any emission of air contaminant which would otherwise violate the Division 3 rules and regulations.</p>	<p>Rule 335-3-1-.10</p>
<p>29. <u>Visible Emissions</u></p> <p>Unless otherwise specified in the Unit Specific provisos of this permit, any source of particulate emissions shall not discharge more than one 6-minute average opacity greater than 20% in any 60-minute period. At no time shall any</p>	<p>Rule 335-3-4-.01(1)</p>

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<p>source discharge a 6-minute average opacity of particulate emissions greater than 40%. Opacity will be determined by 40 CFR Part 60, Appendix A, Method 9, unless otherwise specified in the Unit Specific provisos of this permit.</p>	
<p>30. <u>Fuel-Burning Equipment</u></p>	
<p>Unless otherwise specified in the Unit Specific provisos of this permit, no fuel-burning equipment may discharge particulate emissions in excess of the emissions specified in Part 335-3-4-.03.</p>	Rule 335-3-4-.03
<p>Unless otherwise specified in the Unit Specific provisos of this permit, no fuel-burning equipment may discharge sulfur dioxide emissions in excess of the emissions specified in Part 335-3-5-.01.</p>	Rule 335-3-5-.01
<p>31. <u>Process Industries – General</u></p>	
<p>Unless otherwise specified in the Unit Specific provisos of this permit, no process may discharge particulate emissions in excess of the emissions specified in Part 335-3-4-.04.</p>	Rule 335-3-4-.04
<p>32. <u>Averaging Time for Emission Limits</u></p>	
<p>Unless otherwise specified in the permit, the averaging time for the emission limits listed in this permit shall be the nominal time required by the specific test method.</p>	Rule 335-3-1-.05
<p>33. <u>Compliance Assurance Monitoring (CAM)</u></p>	
<p>Conditions (a) through (d) that follow are general conditions applicable to emissions units that are subject to the CAM requirements. Specific requirements related to each emissions unit are contained in the unit specific provisos and the attached CAM appendices.</p>	
<p>(a) Operation of Approved Monitoring</p>	40 CFR 64.7
<p>(1) Commencement of operation. The owner or operator shall conduct the monitoring required under this section and detailed in the unit specific provisos and CAM appendix of this permit (if required) upon issuance of the permit, or by such later date specified in the permit pursuant to §64.6(d).</p>	
<p>(2) Proper maintenance. At all times, the owner or operator shall maintain the monitoring, including but not limited to, maintaining necessary parts for</p>	

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<p>routine repairs of the monitoring equipment.</p> <p>(3) Continued operation. 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 owner or operator shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutant-specific emissions unit is 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 owner or operator 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.</p> <p>(4) Response to excursions or exceedances.</p> <p>(a) Upon detecting an excursion or exceedance, the owner or operator shall restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) to its 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 operation to within the indicator range, designated condition, or below the applicable emission limitation or</p>	

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<p>standard, as applicable.</p> <p>(b) Determination of whether the owner or operator 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 the process.</p> <p>(5) Documentation of need for improved monitoring. After approval of monitoring under this part, if the owner or operator 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, the owner or operator shall promptly notify the Department and, if necessary, submit a proposed modification to the permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters.</p> <p>(b) Quality Improvement Plan (QIP) Requirements</p> <p>(1) Based on the results of a determination made under Section 33(a)(4)(b) above, the Administrator or the permitting authority may require the owner or operator to develop and implement a QIP. Consistent with 40 CFR §64.6(c)(3), the permit may specify an appropriate threshold, such as an accumulation of exceedances or excursions exceeding 5 percent duration of a pollutant-specific emissions unit's operating time for a reporting period, for requiring the implementation of a QIP. The threshold may be set at a higher or lower percent or may rely on other criteria for purposes of indicating whether a pollutant-specific emissions unit is being maintained and operated in a manner consistent with good air pollution control practices.</p>	<p>40 CFR 64.8</p>

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<p>(2) Elements of a QIP:</p> <ul style="list-style-type: none"> A. The owner or operator shall maintain a written QIP, if required, and have it available for inspection. B. The plan initially shall include procedures for evaluating the control performance problems and, based on the results of the evaluation procedures, the owner or operator shall modify the plan to include procedures for conducting one or more of the following actions, as appropriate: <ul style="list-style-type: none"> (i) Improved preventive maintenance practices. (ii) Process operation changes. (iii) Appropriate improvements to control methods. (iv) Other steps appropriate to correct control performance. (v) More frequent or improved monitoring (only in conjunction with one or more steps under paragraphs (2)(b)(i) through (iv) above). <p>(3) If a QIP is required, the owner or operator shall develop and implement a QIP as expeditiously as practicable and shall notify the Department if the period for completing the improvements contained in the QIP exceeds 180 days from the date on which the need to implement the QIP was determined.</p> <p>(4) Following implementation of a QIP, upon any subsequent determination pursuant to Section 33(a)(4)(b) above, the Department may require that an owner or operator make reasonable changes to the QIP if the QIP is found to have:</p> <ul style="list-style-type: none"> A. Failed to address the cause of the control device performance problems; or B. Failed to provide adequate procedures for correcting control device performance problems as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. 	

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<p>(5) Implementation of a QIP shall not excuse the owner or operator of a source from compliance with any existing emission limitation or standard, or any existing monitoring, testing, reporting or recordkeeping requirement that may apply under federal, state, or local law, or any other applicable requirements under the Act.</p> <p>(c) Reporting and Recordkeeping Requirements</p> <p>(1) General reporting requirements</p> <p>A. On and after the date specified in Section 33(a)(1) above by which the owner or operator must use monitoring that meets the requirements of this part, the owner or operator shall submit monitoring reports to the permitting authority in accordance with ADEM Admin. Code r. 335-3-16-.05(c)3.</p> <p>B. A report for monitoring under this part shall include, at a minimum, the information required under ADEM Admin. Code r. 335-3-16-.05(c)3. and the following information, as applicable:</p> <p>(i) Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken;</p> <p>(ii) Summary information on the number, duration and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable); and</p> <p>(iii) A description of the actions taken to implement a QIP during the reporting period as specified in Section 33(b) above. Upon completion of a QIP, the owner or operator shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring.</p> <p>(2) General recordkeeping requirements.</p>	<p>40 CFR 64.9</p>

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<p>A. The owner or operator shall comply with the recordkeeping requirements specified in ADEM Admin. Code r. 335-3-16-.05(c)2. The owner or operator shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to Section 33(b) above and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained under this part (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions).</p> <p>B. Instead of paper records, the owner or operator may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements.</p> <p>(d) Savings Provisions</p> <p>(1) Nothing in this part shall:</p> <p>A. Excuse the owner or operator of a source from compliance with any existing emission limitation or standard, or any existing monitoring, testing, reporting or recordkeeping requirement that may apply under federal, state, or local law, or any other applicable requirements under the Act. The requirements of this part shall not be used to justify the approval of monitoring less stringent than the monitoring which is required under separate legal authority and are not intended to establish minimum requirements for the purpose of determining the monitoring to be imposed under separate authority under the Act, including monitoring in permits issued pursuant to title I of the Act. The purpose of this part is to require, as part of the issuance of a permit under title V of the Act, improved or new monitoring at those emissions units where monitoring requirements do not exist or are inadequate to meet the requirements of this part.</p> <p>B. Restrict or abrogate the authority of the Department to impose additional or more</p>	<p>40 CFR 64.10</p>

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<p>stringent monitoring, recordkeeping, testing, or reporting requirements on any owner or operator of a source under any provision of the Act, including but not limited to sections 114(a)(1) and 504(b), or state law, as applicable.</p> <p>C. Restrict or abrogate the authority of the Department to take any enforcement action under the Act for any violation of an applicable requirement or of any person to take action under section 304 of the Act.</p>	
<p>34. <u>Emissions Inventory Reporting Requirements</u></p> <p>In order to meet the statewide emissions inventory reporting requirements under 40 CFR 51, Appendix A, the permittee shall comply with the reporting requirements under ADEM Admin. Code R. 335-3-1-.15.</p>	<p>Rule 335-3-1-.15</p>
<p>35. <u>Permit Shield</u></p> <p>(a) A permit shield exists under this operating permit in accordance with ADEM Admin. Code 335-3-16-.10 in that compliance with the conditions of this permit shall be deemed compliance with any applicable requirements as of the date of permit issuance, provided that such applicable requirements are included and are specifically identified in this operating permit.</p> <p>(b) Nothing in this permit shall alter or affect the following:</p> <p>(1) The provisions of Section 303 of the Act (emergency orders), including the authority of the Administrator under that section;</p> <p>(2) The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance;</p> <p>(3) The applicable requirements of the acid rain program, consistent with Section 408(a) of the Act; or</p> <p>(4) The ability of EPA to obtain information from a source pursuant to Section 114 of the Act.</p>	<p>Rule 335-3-16-.10</p>

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<p>36. <u>Unit Retirement</u></p> <p>In accordance with Paragraph 60.1 of the MCD, the permittee permanently retired Plant Barry Unit 3 on August 24, 2015.</p>	<p>Rule 335-3-14-.01(1)(g)</p> <p>(For Reference, see Modified Consent Decree 2:01-cv-00152-VEH (MCD) Paragraph 60.1)</p>

Summary Page for Units 1 & 2 Power Boilers

Permitted Operating Schedule: 8760 Hrs/yr

Emission limitations:

Emission Point #	Description	Pollutant	*Emission limit	Regulation
001	Units 1 & 2 Power Boilers	PM	0.12 lb/MMBtu	Rule 335-3-4-.03(1)
		SO ₂	1.8 lb/MMBtu	Rule 335-3-5-.01(1)(a)
		Opacity	20%/40%	Rule 335-3-4-.01(1)
		NO _x	See NO _x Avg. Plan	40 CFR Part 76
		NO _x	0.200 lb/MMBtu (30-day rolling average)	Rule 335-3-16-.05(a)

*See Units 1 and 2 Power Boilers Emission Standards section of the permit for a complete description of emission limitations

Provisos for Units 1 & 2 Power Boilers

Federally Enforceable Provisos

Regulations

Applicability

- | | |
|--|---|
| 1. These units are subject to the provisions of ADEM Admin. Code r. 335-3-16, "Major Source Operating Permits." | Rule 335-3-16 |
| 2. Where an applicable requirement of the Act is more stringent than an applicable requirement of regulations promulgated under Title IV of the Act, both provisions are incorporated as enforceable conditions of this permit. | Rule 335-3-16-.05(a)2 |
| 3. These units are subject to the applicable provisions of the Cross-State Air Pollution Rule (CSAPR) found in ADEM Admin. Code r. 335-3-5-.06 through 335-3-5-.36 and ADEM Admin. Code r. 335-3-8-.07 through 335-3-8-.70. | Rules 335-3-5-.06 through 335-3-5-.36 and Rules 335-3-8-.07 through 335-3-8-.70 |
| 4. These units are subject to the applicable provisions of 40 CFR Part 98, "Mandatory Greenhouse Gas Reporting." | 40 CFR Part 98 |
| 5. These units are not subject to the provisions of 40 CFR Part 63, Subpart UUUUU, "National Emission Standards for Hazardous Air Pollutants for Coal- and Oil-Fired Electric Utility Steam Generating Units," provided they continue to meet the definition of natural gas-fired electric utility steam generating units. | Rule 335-3-11-.06(124)
(incorporating 40 CFR 63.9983(b) & 63.10042) |

Emission Standards

- | | |
|---|------------------------|
| 1. Emissions exceeding any allowances that the source lawfully holds under Title IV of the Clean Air Act or the regulations promulgated thereunder are prohibited. | Rule 335-3-16-.05(d) |
| 2. The permittee shall not discharge to the atmosphere from the common stack for Units 1 and 2 particulate of an opacity greater than 20%, as determined by a six-minute average, except that during one six-minute period in any sixty (60) minute period, the permittee may discharge into the atmosphere particulate of an opacity not greater than 40%. | Rule 335-3-4-.01 |
| 3. The PM emission rate shall not exceed 0.12 lb/MMBtu. | Rule 335-3-4-.03 |
| 4. The SO ₂ emission rate shall not exceed 1.8 lb/MMBtu. | Rule 335-3-5-.01(1)(a) |

Federally Enforceable Provisos	Regulations
<p>5. The 30-Day Rolling Average NO_x emission rate shall not exceed 0.200 lb/MMBtu at the common duct/stack for Plant Barry Unit 1 & Unit 2.</p> <p>For the purpose of determining compliance with this limit:</p> <p>A “30-Day Rolling Average Emission Rate” for Plant Barry Unit 1 and Unit 2 means the average number of pounds of pollutant emitted per million BTU of heat input (“lb/mm BTU”) where such rate shall be calculated as a 30-Day Rolling Average. A 30-Day Rolling Average Emission Rate expressed as lb/MMBtu shall be determined by calculating the emission rate for a given Operating Day, and then arithmetically averaging the emission rates for the previous 29 Operating Days with that date. A new 30-Day Rolling Average Emission Rate shall be calculated for each new Operating Day and shall include all periods of startup, shutdown and malfunction as defined in 40 CFR § 60.2.</p>	<p>Rule 335-3-14-.01(1)(g)</p> <p>(For Reference, see MCD Paragraphs 39.1(i) and 3(b))</p>
<p>6. The permittee shall comply with all applicable provisions of the CSAPR found in ADEM Admin. Code r. 335-3-5-.06 through 335-3-5-.36 and Rules 335-3-8-.07 through 335-3-8-.70.</p>	<p>Rules 335-3-5-.06 through 335-3-5-.36 and Rules 335-3-8-.07 through 335-3-8-.70</p>
<p>7. The permittee shall combust only natural gas in Units 1 and 2.</p>	<p>Rule 335-3-14-.01(1)(g)</p> <p>(For Reference, see MCD Paragraph 39.1)</p>
<p>8. Beginning January 1, 2021, Alabama Power Company (APC) shall not sell, trade, or otherwise exchange any excess emission allowances outside the APC system. For purposes of this provision:</p> <p>a) “Excess emission allowances” shall mean all SO₂ and NO_x emission allowances generated by the operation of Barry Unit 2 that APC does not need to meet applicable state or regulatory requirements for that unit.</p> <p>b) The “APC system” shall mean all coal-fired electric generating units that APC owns or operates at the time the restriction in this Paragraph applies.</p>	<p>Rule 335-3-14-.01(1)(g)</p> <p>(For Reference, see MCD Paragraph 60)</p>
<p>9. The Selective Non-Catalytic Reduction (SNCR) NO_x Control Systems shall be operated, as necessary, in order to comply with the requirements of 40 CFR Part 76 and the CSAPR. General permit proviso 16 does not apply to the operation of the SNCR control systems for Units 1, 2, & 4.</p>	<p>Rule 335-3-18 and 40 CFR Part 76</p> <p>Rule 335-3-8-.07 – Rule 335-3-8-.70</p>
<p><u>Compliance and Performance Test Methods and Procedures</u></p>	
<p>1. Compliance with the PM emission standard shall be determined by EPA Reference Method 5 or 17, as found in Appendix A of 40 CFR Part 60.</p>	<p>Rule 335-3-1-.05</p>

Federally Enforceable Provisos	Regulations
2. Compliance with the SO ₂ emission standard shall be determined by EPA Reference Method 6, as found in Appendix A of 40 CFR Part 60.	Rule 335-3-1-.05
3. Compliance with the opacity standard shall be determined by EPA Reference Method 9, as found in Appendix A of 40 CFR Part 60.	Rule 335-3-1-.05
4. Compliance with the 30-Day Rolling Average NO _x emission rate in Emission Standards Proviso 5 shall be determined by NO _x CEMS, operated in accordance with 40 CFR Part 75; however, the missing data substitution procedures of 40 CFR Part 75 shall not apply to such determinations.	Rule 335-3-14-.01(1)(g) (For Reference, see MCD Paragraph 39.1(ii))
Compliance with the MCD NO _x emission standard shall be determined based on monitoring in the common duct/stack for the two units together as if they were a single unit. A violation based on common stack measurements shall be a single violation.	Rule 335-3-14-.01(1)(g) (For Reference, see MCD Paragraph 33.2)
<u>Emission Monitoring</u>	
1. A continuous sulfur dioxide emissions monitor or other approved continuous monitoring method under 40 CFR Part 75 will operated, maintained, and certified using 40 CFR Part 75 procedures.	40 CFR Part 75 Rule 335-3-5-.31 Rule 335-3-16-.05(c)
2. NO _x emissions shall be monitored continuously with CEMS. The installed Continuous NO _x Emissions Monitor will be operated, maintained, and certified using 40 CFR Part 75 procedures, except as provided by Compliance and Performance Test Methods and Procedures Proviso 4.	40 CFR Part 75 Rule 335-3-8-.33 Rule 335-3-8-.65 Rule 335-3-14-.01(1)(g) (For Reference, see MCD Paragraph 39.1(ii))
3. The installed Continuous CO ₂ Emissions Monitor or other approved continuous monitoring method under 40 CFR Part 75 will be operated, maintained, and certified using 40 CFR Part 75 procedures.	40 CFR Part 75
<u>Recordkeeping and Reporting Requirements</u>	

Summary Page for Unit 4 Power Boiler

Permitted Operating Schedule: 8760 Hrs/yr

Emission limitations:

Emission Point #	Description	Pollutant	*Emission limit	Regulation
002	Unit 4 Power Boiler	PM	**0.030 lb/MMBtu	40 CFR 63.9991(a)(1)
			0.12 lb/MMBtu	Rule 335-3-4-.03(1)
		SO ₂	1.8 lb/MMBtu	Rule 335-3-5-.01(1)(a)
		Opacity	See Emission Std. 2	Rule 335-3-4-.01
		NO _x	See NO _x Avg. Plan	40 CFR Part 76
		Hg	**1.2 lb/TBtu	40 CFR 63.9991(a)(1)
		HCl	0.0020 lb/MMBtu	40 CFR 63.9991(a)(1)

*See Unit 4 Power Boiler Emission Standards section for a complete description of emission limitations.

**Applicable unless permittee elects an alternate method of compliance under 40 CFR Part 63 Subpart UUUUU.

Provisos for Unit 4 Power Boiler

Federally Enforceable Provisos	Regulations
<u>Applicability</u>	
1. This unit is subject to the provisions of ADEM Admin. Code r. 335-3-16, "Major Source Operating Permits."	Rule 335-3-16
2. Where an applicable requirement of the Act is more stringent than an applicable requirement of regulations promulgated under Title IV of the Act, both provisions are incorporated as enforceable conditions of this permit.	Rule 335-3-16-.05(a)2
3. This unit is subject to ADEM Admin. Code r. 335-3-11-.06(124), which incorporates 40 CFR Part 63 Subpart UUUUU, "National Emission Standards for Hazardous Air Pollutants: Coal- and Oil-Fired Electric Utility Steam Generating Units."	Rule 335-3-11-.06(124) (incorporating 40 CFR Part 63 Subpart UUUUU)
4. This unit is subject to the applicable provisions of the Cross-State Air Pollution Rule (CSAPR) found in ADEM Admin. Code r. 335-3-5-.06 through 335-3-5-.36 and ADEM Admin. Code r. 335-3-8-.07 through 335-3-8-.70.	Rules 335-3-5-.06 through 335-3-5-.36 and Rules 335-3-8-.07 through 335-3-8-.70
5. This unit is subject to the applicable provisions of 40 CFR Part 64, "Compliance Assurance Monitoring."	40 CFR Part 64
6. This unit is subject to the applicable provisions of 40 CFR Part 98, "Mandatory Greenhouse Gas Reporting."	40 CFR Part 98
<u>Emission Standards</u>	
1. Emissions exceeding any allowances that the source lawfully holds under Title IV of the Clean Air Act or the regulations promulgated thereunder are prohibited.	Rule 335-3-16-.05(d)

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<p>2. Unit 4 is subject to opacity numeric limitations and work practice limitations as specified below.</p> <p>(a) Except as provided by Emission Standard 2(b) below, the permittee shall not discharge into the atmosphere from the stack utilized by Unit 4, particulate of an opacity greater than 20%, as determined by a 6-minute average, except that during each calendar quarter, the permittee may discharge into the atmosphere from the stack particulate with an opacity exceeding 20% for not more than 24 6-minute periods in any calendar day, if such periods do not exceed 2.0% of the source calendar quarter operating hours for which the opacity numerical limitation is applicable and for which the COMS is indicating valid data.</p> <p>The permittee shall not discharge into the atmosphere from the stack particulate of a daily opacity greater than 22% (excluding periods subject to work practice limitations described in Emission Standard 2(b) below) averaged over each calendar day.</p> <p>(b) During periods of startup, shutdown, load change and maintenance (as defined in Proviso 3 below), the permittee shall comply with the following work practice limitations:</p> <ul style="list-style-type: none"> i. Utilize natural gas for ignitor fuel, ii. Take all reasonable actions to minimize the magnitude and duration of elevated opacity conditions during these periods, iii. Employ good operation and maintenance practices on the unit, including on associated pollution control technology, and iv. Comply with the emission monitoring, recordkeeping, and reporting requirements in this permit. 	<p>Rule 335-3-4-.01(3)-(5)</p> <p>Rule 335-3-4-.01(1)(c)</p>

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<p>3. Periods of startup, shutdown, load change and maintenance as defined below:</p> <p>(a) Startup - The time period from initial fan startup until one hour after startup fuel use is discontinued and normal minimum load for the unit is achieved.</p> <p>(b) Shutdown – For purposes of bringing the unit off-line, the time period between normal minimum load for the unit and turning all fans off.</p> <p>(c) Load Change - A rapid change in the electrical loading of a unit that is readily identifiable on the load chart recording.</p> <p>(d) Maintenance - Maintenance activity on an off-line unit that precludes operation of installed air pollution control device(s). Off-line means that none of the generators serviced by the unit are supplying power to their respective dispatch systems.</p>	<p>Rule 335-3-16-.05(a)</p>
<p>4. The permittee shall comply with the PM emission rate of 0.030 lb/MMBtu, or the total non-Hg metals emission rate, or the individual HAP metals emission rate as outlined in Table 2 of 40 CFR Part 63, Subpart UUUUU.</p>	<p>Rule 335-3-11-.06(124) (incorporating 40 CFR 63.9991(a)(1))</p>
<p>5. The PM emission rate shall not exceed 0.12 lb/MMBtu.</p>	<p>Rule 335-3-4-.03</p>
<p>6. The SO₂ emission rate shall not exceed 1.8 lb/MMBtu.</p>	<p>Rule 335-3-5-.01(1)(a)</p>
<p>7. The 30-boiler operating day rolling average Hg emission rate shall not exceed 1.2 lb/TBtu.</p>	<p>Rule 335-3-11-.06(124) (incorporating 40 CFR 63.9991(a)(1))</p>
<p>8. The HCl emission rate shall not exceed 0.0020 lb/MMBtu.</p>	<p>40 CFR 63.9991(a)(1)</p>
<p>9. The permittee shall comply with all applicable MATS emission limits at all times except during startup periods and shutdown periods. During startup and shutdown periods, the permittee must comply with the Work Practice Standards outlined in Table 3 of 40 CFR Part 63, Subpart UUUUU. Among other requirements in Table 3, the permittee must use clean fuels as defined in 40 CFR §63.10042 for ignition. Once the permittee converts to firing coal, the permittee must engage all of the applicable control technologies. During shutdown periods, the permittee must continue to operate all applicable air pollution control equipment after the cessation of coal firing and for as long as possible thereafter, considering operational and safety concerns.</p>	<p>Rule 335-3-11-.06(124) (incorporating 40 CFR 63.10000)</p>
<p>10. The permittee shall comply with all applicable provisions of the Cross-State Air Pollution Rule (CSAPR) found in ADEM Admin. Code r. 335-3-5-.06 through 335-3-5-.36 and ADEM Admin. Code r. 335-3-8-.07 through 335-3-8-.70.</p>	<p>Rules 335-3-5-.06 through 335-3-5-.36 and Rules 335-3-8-.07 through 335-3-8-.70</p>

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<p>11. The Selective Non-Catalytic Reduction (SNCR) NOX Control Systems shall be operated, as necessary, in order to comply with the requirements of 40 CFR Part 76 and the CSAPR. General permit proviso 16 does not apply to the operation of the SNCR control systems for Units 1, 2, & 4.</p>	<p>Rule 335-3-18 and 40 CFR Part 76</p> <p>Rule 335-3-8-.07 – Rule 335-3-8-.70</p>
<p><u>Compliance and Performance Test Methods and Procedures</u></p>	
<p>1. Compliance with the PM Emission Standard Proviso 4 shall be determined by EPA Reference Method 5, as found in Appendix A of 40 CFR Part 60. Note that the Method 5 front-half temperature shall be 160° ± 14°C (320° ± 25°F).</p>	<p>40 CFR Part 63 Subpart UUUUU, Table 5</p>
<p>2. Compliance with the PM Emission Standard Proviso 5 shall be determined as described in Proviso 1 above or by EPA Reference Method 5 or 17, as found in Appendix A of 40 CFR Part 60.</p>	<p>Rule 335-3-1-.05</p>
<p>3. Compliance with the SO₂ emission standard shall be determined by EPA Reference Method 6 as found in Appendix A of 40 CFR Part 60.</p>	<p>Rule 335-3-1-.05</p>
<p>4. Compliance with the opacity standard shall be determined by COMS data.</p>	<p>Rule 335-3-4-.01(6)</p>
<p>5. Compliance with the Hg emission standard shall be determined by use of Hg CEMS certified and maintained in accordance with 40 CFR Part 63, Subpart UUUUU, Appendix A.</p>	<p>Rule 335-3-11-.06(124) (incorporating 40 CFR Part 63 Subpart UUUUU, Appendix A)</p>
<p>6. Compliance with the HCl standard shall be determined by EPA Reference Methods 26 or 26A, as found in the Appendix of 40 CFR Part 60 or any other approved method.</p>	<p>40 CFR Part 63 Subpart UUUUU, Table 5</p>
<p><u>Emission Monitoring</u></p>	
<p>1. The permittee shall conduct Compliance Assurance Monitoring (CAM) for particulate matter in accordance with the attached Appendix.</p>	<p>40 CFR Part 64</p>
<p>2. The permittee shall conduct a test for PM at least once per calendar quarter or as allowed by 40 CFR 63.10021(d). The permittee may conduct alternate monitoring as allowed by 40 CFR Part 63 Subpart UUUUU.</p> <p>If an alternative monitoring option allowed by 40 CFR Part 63, Subpart UUUUU other than quarterly PM emission testing is chosen, the permittee shall conduct annual PM emission tests for this unit.</p>	<p>Rule 335-3-11-.06(124) (incorporating 40 CFR Part 63 Subpart UUUUU)</p> <p>Rule 335-3-16-.05(c)</p>
<p>3. The permittee shall conduct a test for HCl at least once per calendar quarter or as allowed by 40 CFR 63.10021(d). The permittee may conduct alternate monitoring as allowed by 40 CFR Part 63 Subpart UUUUU.</p>	<p>Rule 335-3-11-.06(124) (incorporating 40 CFR Part 63 Subpart UUUUU)</p>

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<p>4. Hg emissions shall be monitored continuously with CEMS. The installed Continuous Hg Emissions Monitor will be operated, maintained, and certified using 40 CFR Part 63 Subpart UUUUU, Appendix A.</p> <p>5. The installed Continuous Opacity Monitoring System (COMS) will be operated, maintained, and certified using procedures in 40 CFR Part 75 and 40 CFR Part 60, Appendix B, Performance Specification 1.</p> <p>6. SO₂ emissions shall be monitored continuously with CEMS or another method approved by 40 CFR Part 75. If a Continuous SO₂ Emissions Monitor is used, it shall be operated, maintained, and certified using 40 CFR Part 75 procedures.</p> <p>Data from this monitor will also be used to provide an indication of compliance with the state SO₂ emission limit, using lb/MMBtu computed on a 24-hour rolling average.</p> <p>7. NO_x emissions shall be monitored continuously with CEMS. The installed Continuous NO_x Emissions Monitor will be operated, maintained, and certified using 40 CFR Part 75 procedures.</p> <p>8. The installed Continuous CO₂ Emissions Monitor will be operated, maintained, and certified using 40 CFR Part 75 procedures.</p> <p>9. The permittee shall conduct a tune-up of the unit's burner and combustion controls at least once every 36 calendar months unless the unit employs neural network combustion optimization during normal operations, in which case the inspection of the burner and combustion controls must be performed at least every 48 calendar months.</p>	<p>Rule 335-3-11-.06(124) (incorporating 40 CFR Part 63 Subpart UUUUU, Appendix A)</p> <p>Rule 335-3-16-.05(c) 40 CFR Part 75</p> <p>40 CFR Part 75 Rule 335-3-5-.31 Rule 335-3-16-.05(c)</p> <p>40 CFR Part 75 Rule 335-3-8-.33 Rule 335-3-8-.65</p> <p>40 CFR Part 75</p> <p>Rule 335-3-11-.06(124) (incorporating 40 CFR 63.10021(e))</p>
<u>Recordkeeping and Reporting Requirements</u>	
<p>1. A summary emission report will be submitted to the ADEM within thirty days of the end of each calendar quarter. The report will contain the following:</p> <p><u>Opacity</u></p> <p>A. Source Operating Time (Fan On - Fan Off) (all times and periods in six-minute increments)</p> <p>B. Time Monitor was Able to Record Source Performance (Does not include periods of calibration, span, zero checks, or when source is not operating.)*</p> <p>C. Monitor Availability (%) = B/A x 100**</p> <p>D. Total Emission Periods where the COMS data may indicate emissions above the numerical limitation***</p>	<p>Rule 335-3-16-.05(c) Rule 335-3-1-.04</p>

Federally Enforceable Provisos	Regulations
<p>E. Overall Source Performance (%) = $[(B - D)/B] \times 100$</p> <p>F. Periods above the numeric limitation and subject to work practice standards $F(x)$</p> <p style="padding-left: 40px;">F_1 = Startup/Shutdown</p> <p style="padding-left: 40px;">F_2 = Load Change</p> <p style="padding-left: 40px;">F_3 = Maintenance</p> <p>G. Net Excess Emissions = $D - \sum F_{(x)}$</p> <p>H. Net Source Performance (%):</p> <p style="padding-left: 40px;">$= [1 - (G/(B - \sum F_{(x)}))] \times 100$</p> <p style="padding-left: 40px;">$= [(B - \sum F_{(x)} - G)/(B - \sum F_{(x)})] \times 100$</p> <p>I. Overall Exceedances (%) - Percent of time above the 20% numeric limitation due to all reasons:</p> <p style="padding-left: 40px;">$= 100 - E$</p> <p>J. Net Exceedances (%) - Percent of time above the 20% numeric limitation during periods subject to the numeric limitation:</p> <p style="padding-left: 40px;">$= 100 - H$</p> <p>K. Daily average > 22% (# of days)</p> <p>L. Daily Net Excess Emissions (excludes periods during which work practice standards apply) > 24 periods above the numeric limitation when subject to the numeric limitation</p> <p style="padding-left: 40px;">(# of 6 min periods)</p> <p>* Information identifying each period during which the monitoring systems were inoperative (except for zero and span checks) and the nature of the system repairs or adjustments will be maintained and made available upon request.</p> <p>** For units that did not operate in a reporting quarter, items C-L above are not required. A statement that the unit did not operate should be included in the report.</p> <p>*** Report date, time, duration, magnitude, cause and corrective action taken for each occurrence.</p> <p>NOTE: Data recorded during periods of monitoring system breakdowns, repairs, adjustments, and calibration checks shall not be included in any of the above data averages.</p> <p><u>SO₂</u></p> <p>A. Source Operating Time (all times and periods in hours)</p> <p>B. Time Monitor System was Able to Record Source Performance *</p>	

Federally Enforceable Provisos	Regulations
<p>C. Monitor Availability (%) = $B/A \times 100^{**}$</p> <p>D. Total Excess Emission Periods where the CEM data may indicate emissions above the applicable standard ***</p> <p>E. Overall Source Performance (%) = $[(B - D)/B] \times 100$</p> <p>F. Overall Exceedances (%) - Percent of time above the standard due to all reasons: = 100-E</p> <p>* Information identifying each period during which the monitoring systems were inoperative (except for zero and span checks) and the nature of the system repairs or adjustments will be maintained and made available upon request.</p> <p>** For units that did not operate in a reporting quarter, items C-F above are not required. A statement that the unit did not operate should be included in the report.</p> <p>*** Report date, time, duration, magnitude, cause and corrective action taken for each occurrence. SO₂ emissions rate (lb/MMBtu) will be computed as a 24-hour rolling average.</p> <p>NOTE: Data recorded during periods of monitoring system breakdowns, repairs, adjustments, and calibration checks shall not be included in any of the above data averages.</p> <p>2. Malfunctions of the COMS which lasts more than forty-eight (48) hours must be reported as expeditiously as possible to the Director in a written report. This report should include statements as to the time the monitor malfunctioned, the nature of the malfunction, the corrective action being taken, the estimated repair time, and any other information needed to demonstrate to the Director that the malfunction was unavoidable. The Director shall be informed of the time at which the monitor again becomes operational.</p> <p>3. The facility shall comply with the recordkeeping and reporting requirements of CSAPR found in ADEM Admin. Code r. 335-3-5-.31, 335-3-5-.35, and 335-3-8-.33, 335-3-8-.37, 335-3-8-.65, and 335-3-8-.69.</p> <p>4. The permittee shall submit compliance reports at least semiannually and in accordance with MATS requirements. These reports may be included in the quarterly monitoring reports that the permittee is otherwise required by the MSOP to submit.</p> <p>5. By January 31 of each year, the permittee shall submit to the Department its determination of the operating load that constitutes normal minimum load and normal full load for the unit.</p>	<p>Rule 335-3-12-.03(1)</p> <p>Rules 335-3-5-.31, 335-3-5-.35, Rules 335-3-8-.33, 335-3-8-.37, 335-3-8-.65, 335-3-8-.69</p> <p>Rule 335-3-11-.06(124) (incorporating 40 CFR Part 63 Subpart UUUUU)</p> <p>Rule 335-3-16-.05(c)</p>

Federally Enforceable Provisos	Regulations
<p>6. The permittee shall comply with the recordkeeping and reporting requirements of the Mandatory Greenhouse Gas Reporting Rule in 40 CFR Part 98.</p>	<p>40 CFR Part 98</p>
<p><u>Acid Rain Requirements</u></p>	
<p>1. This unit is subject to the Acid Rain Program contained in 40 CFR Parts 72, 73, 75, and 76. Applicable Acid Rain permits are contained in the Acid Rain portion of this Operating Permit.</p>	<p>Rule 335-3-18 and 40 CFR Parts 72, 73, 75, and 76</p>
<p><u>CSAPR Requirements</u></p>	
<p>1. This unit is subject to the applicable provisions of the Cross-State Air Pollution Rule (CSAPR) to include all applicable provisions of the SO₂ Group 2 Trading Program requirements.</p>	<p>Rules 335-3-5-.06 through 335-3-5-.36</p>
<p>2. This unit is subject to the applicable provisions of the CSAPR to include all applicable provisions of the NO_x Annual and Seasonal Trading Program requirements.</p>	<p>Rules 335-3-8-.07 through 335-3-8-.70</p>

Summary Page for Unit 5 Power Boiler

Permitted Operating Schedule: 8760 Hrs/yr

Emission limitations:

Emission Point #	Description	Pollutant	*Emission limit	Regulation
003	Unit 5 Power Boiler	PM	**0.030 lb/MMBtu	40 CFR 63.9991(a)(1)
			0.12 lb/MMBtu	Rule 335-3-4-.03(1)
		Opacity	20%/40%	Rule 335-3-4-.01(1)
		SO ₂	**0.20 lb/MMBtu	40 CFR 63.9991(c)
			1.8 lb/MMBtu	Rule 335-3-5-.01(1)(a)
		NO _x	See NO _x Avg. Plan	40 CFR Part 76
		Hg	**1.2 lb/TBtu	40 CFR 63.9991(a)(1)

*See Unit 5 Power Boiler Emission Standards section for a complete description of emission limitations.

**Applicable unless permittee elects an alternate method of compliance under 40 CFR Part 63 Subpart UUUUU

Provisos for Unit 5 Power Boiler

Federally Enforceable Provisos	Regulations
<u>Applicability</u>	
1. This unit is subject to the provisions of ADEM Admin. Code r. 335-3-16, "Major Source Operating Permits."	Rule 335-3-16
2. Where an applicable requirement of the Act is more stringent than an applicable requirement of regulations promulgated under Title IV of the Act, both provisions are incorporated as enforceable conditions of this permit.	Rule 335-3-16-.05(a)2
3. This unit is subject to the applicable provisions of the Cross-State Air Pollution Rule (CSAPR) found in ADEM Admin. Code r. 335-3-5-.06 through 335-3-5-.36 and ADEM Admin. Code r. 335-3-8-.07 through 335-3-8-.70.	Rules 335-3-5-.06 through 335-3-5-.36 and Rules 335-3-8-.07 through 335-3-8-.70
4. This unit is subject to ADEM Admin. Code r. 335-3-11-.06(124), which incorporates 40 CFR Part 63 Subpart UUUUU, "National Emission Standards for Hazardous Air Pollutants: Coal- and Oil-Fired Electric Utility Steam Generating Units."	Rule 335-3-11-.06(124) (incorporating 40 CFR 63 Subpart UUUUU)
5. This unit is subject to the applicable provisions of 40 CFR Part 64, "Compliance Assurance Monitoring."	40 CFR Part 64
6. This unit is subject to the applicable provisions of 40 CFR Part 98, "Mandatory Greenhouse Gas Reporting."	40 CFR Part 98
<u>Emission Standards</u>	
1. Emissions exceeding any allowances that the source lawfully holds under Title IV of the Clean Air Act or the regulations promulgated thereunder are prohibited.	Rule 335-3-16-.05(d)
2. The permittee shall not discharge to the atmosphere from this unit particulate of an opacity greater than 20%, as determined by a six-minute average, except that during one six-minute period in any sixty (60) minute period, the permittee may discharge into the atmosphere particulate of an opacity not greater than 40%.	Rule 335-3-4-.01(1)
3. The permittee shall comply with the PM emission rate of 0.030 lb/MMBtu, or the total non-Hg metals emission rate, or the individual HAP metals emission rates as outlined in Table 2 of 40 CFR Part 63, Subpart UUUUU.	Rule 335-3-11-.06(124) (incorporating 40 CFR 63.9991(a)(1))
4. The PM emission rate shall not exceed 0.12 lb/MMBtu.	Rule 335-3-4-.03(1)
5. The 30-boiler operating day rolling average SO ₂ emission rate shall not exceed 0.20 lb/MMBtu.	Rule 335-3-11-.06(124) (incorporating 40 CFR 63.9991(c))
6. The SO ₂ emission rate shall not exceed 1.8 lb/MMBtu.	Rule 335-3-5-.01(1)(a)

Federally Enforceable Provisos	Regulations
7. The 30-boiler operating day rolling average Hg emission rate from this unit shall not exceed 1.2 lb/TBtu.	Rule 335-3-11-.06(124) (incorporating 40 CFR 63.9991(a)(1))
8. The permittee must comply with all applicable MATS emissions limits at all times except during startup periods and shutdown periods. During startup and shutdown periods, the permittee must comply with the Work Practice Standards outlined in Table 3 of 40 CFR Part 63, Subpart UUUUU. Among other requirements in Table 3, the permittee must use clean fuels as defined in 40 CFR §63.10042 for ignition. Once the permittee converts to firing coal, the permittee must engage all of the applicable control technologies except SCR. During shutdown periods, the permittee must continue to operate the applicable air pollution control equipment after the cessation of coal firing and for as long as possible thereafter, considering operational and safety concerns.	Rule 335-3-11-.06(124) (incorporating 40 CFR 63.10000)
9. The permittee shall comply with all applicable provisions of the Cross-State Air Pollution Rule (CSAPR) found in ADEM Admin. Code r. 335-3-5-.06 through 335-3-5-.36 and ADEM Admin. Code r. 335-3-8-.07 through 335-3-8-.70.	Rules 335-3-5-.06 through 335-3-5-.36 and Rules 335-3-8-.07 through 335-3-8-.70
<u>Compliance and Performance Test Methods and Procedures</u>	
1. Compliance with PM Emission Standard Proviso 3 shall be determined by EPA Reference Method 5, as found in Appendix A of 40 CFR Part 60. Note that the Method 5 front-half temperature shall be 160° ± 14°C (320° ± 25°F).	40 CFR Part 63, Subpart UUUUU, Table 5
2. Compliance with PM Emission Standard Proviso 4 shall be determined as described in Proviso 1 above or by EPA Reference Method 5 or 17, as found in Appendix A of 40 CFR Part 60.	Rule 335-3-1-.05
3. Compliance with SO ₂ Emission Standard Proviso 5 shall be determined through the use of SO ₂ CEMS which is certified and maintained in accordance with 40 CFR Part 63, Subpart UUUUU.	Rule 335-3-11-.06(124) (incorporating 40 CFR 63.10010(f))
4. Compliance with SO ₂ Emission Standard Proviso 6 shall be determined by EPA Reference Method 6 as found in Appendix A of 40 CFR Part 60.	Rule 335-3-1-.05
5. Compliance with the opacity standard shall be determined by EPA Reference Method 9, as found in Appendix A of 40 CFR Part 60.	Rule 335-3-1-.05
6. Compliance with the Hg standard shall be determined by use of Hg CEMS certified and maintained in accordance with 40 CFR Part 63, Subpart UUUUU, Appendix A.	Rule 335-3-11-.06(124) (incorporating 40 CFR Part 63 Subpart UUUUU, Appendix A)
<u>Emission Monitoring</u>	
1. The permittee shall conduct Compliance Assurance Monitoring (CAM) for particulate matter in accordance with the attached Appendix.	40 CFR Part 64

Federally Enforceable Provisos	Regulations
<p>2. The permittee shall conduct quarterly PM emission tests for this unit or as allowed by 40 CFR 63.10021(d). The permittee may conduct alternate monitoring as allowed by 40 CFR Part 63 Subpart UUUUU.</p> <p>If an alternative monitoring option allowed by 40 CFR Part 63, Subpart UUUUU other than quarterly PM emission testing is chosen, the permittee shall conduct annual PM emission tests for this unit.</p> <p>3. As an alternative to continuous opacity monitoring due to the presence of condensed moisture following the FGD system, the permittee shall:</p> <ul style="list-style-type: none"> a) continuously monitor the ESP power level and the sparger tubes submergence level in the FGD to indicate compliance with the opacity standard and b) comply with work practice limitations during periods of startup, shutdown, load change, and maintenance. <p>These ESP Power Level and Sparger Tube submergence level parameters, as detailed in Provisos 4 and 5 below, shall be monitored on 6-minute averages.</p> <p>4. Except as provided by Proviso 6 below, during FGD operation, the permittee shall either maintain the ESP power level at 30 kW or greater with no channeling or maintain the sparger tubes submergence level in the FGD at 5.0 inches or greater. Channeling occurs when Power Supplies (PS) are out of service in succession such that the exhaust gas passes through the ESP without contacting any PS in service.</p> <p>5. Except as provided by Proviso 6 below, during unit operation with the FGD bypassed, the permittee shall maintain the ESP power level at 30 kW or greater with no channeling.</p> <p>6. During periods of startup, shutdown, load change and maintenance (as defined in Proviso 7 below), the permittee shall comply with the following work practice limitations:</p> <ul style="list-style-type: none"> (a) Utilize natural gas for ignitor fuel. (b) Take all reasonable actions to minimize the magnitude and duration of elevated opacity conditions during these periods. (c) Employ good operation and maintenance practices on Unit 5, including on associated pollution control technologies. (d) Comply with the ESP power level and sparger tube submergence level monitoring, recordkeeping, and reporting requirements in this permit <p>7. Periods of startup, shutdown, load change and maintenance are defined as follows:</p> <ul style="list-style-type: none"> (a) Startup - The time period from initial fan startup until one 	<p>Rule 335-3-11-.06(124) (incorporating 40 CFR 63 Subpart UUUUU) Rule 335-3-1-.04(1)</p> <p>Rule 335-3-16-.05(c)</p> <p>Rule 335-3-12-.04(2)(a)</p> <p>Rule 335-3-16-.05(c)</p> <p>Rule 335-3-12-.04(2)(a)</p> <p>Rule 335-3-16-.05(a)</p> <p>Rule 335-3-12-.04(2)(a)</p> <p>Rule 335-3-16-.05(a)</p> <p>Rule 335-3-16-.05(a)</p> <p>Rule 335-3-16-.05(a)</p>

Federally Enforceable Provisos	Regulations
<p>hour after startup fuel use is discontinued and normal minimum load for the unit is achieved.</p> <p>(b) Shutdown – For purposes of bringing the unit off-line, the time period between normal minimum load for the unit and turning all fans off.</p> <p>(c) Load Change - A rapid change in the electrical loading of a unit that is readily identifiable on the load chart recording.</p> <p>(d) Maintenance - Maintenance activity on an off-line unit that precludes operation of installed air pollution control device(s). Off-line means that none of the generators serviced by the unit are supplying power to their respective dispatch systems.</p> <p>The permittee shall take all reasonable actions to minimize the magnitude and duration of emissions during the periods listed above.</p>	
<p>8. Hg emissions shall be monitored continuously with CEMS. The installed Continuous Hg Emissions Monitor will be operated, maintained, and certified using 40 CFR Part 63 Subpart UUUUU, Appendix A.</p>	<p>Rule 335-3-11-.06(124) (incorporating 40 CFR Part 63 Subpart UUUUU, Appendix A)</p>
<p>9. SO₂ emissions shall be monitored continuously with CEMS. The installed Continuous SO₂ Emissions Monitor will be operated, maintained, and certified using 40 CFR Part 75 procedures except as provided in Compliance and Performance Test Methods and Procedures Proviso 3.</p>	<p>40 CFR Part 75 Rule 335-3-5-.31</p>
<p>Data from this monitor will also be used to provide an indication of compliance with the state SO₂ emission limit, using lb/MMBtu computed on a 24-hour rolling average.</p>	<p>335-3-16-.05(c)</p>
<p>Data from this monitor will be used to determine compliance with the MATS emission limit, using lb/MMBtu computed on a 30-boiler operating day rolling average.</p>	<p>40 CFR Part 63.10010(f)</p>
<p>10. NO_x emissions shall be monitored continuously with CEMS. The installed Continuous NO_x Emissions Monitor will be operated, maintained, and certified using 40 CFR Part 75 procedures.</p>	<p>40 CFR Part 75 Rule 335-3-8-.33</p>
<p>11. The installed Continuous CO₂ Emissions Monitor will be operated, maintained, and certified using 40 CFR Part 75 procedures.</p>	<p>Rule 335-3-8-.65 40 CFR Part 75</p>
<p>12. The permittee shall conduct a tune-up of each unit's burner and combustion controls at least once every 36 calendar months unless the unit's employ neural network combustion optimization during normal operations, in which case the inspection of the burner and combustion controls must be performed at least once every 48 calendar months.</p>	<p>Rule 335-3-11-.06(124) (incorporating 40 CFR 63.10021(e))</p>

Federally Enforceable Provisos	Regulations
<u>Recordkeeping and Reporting Requirements</u>	
1. Records of the 6-minute averages of the ESP power level shall be maintained and be available for inspection for a period of five years.	Rule 335-3-16-.05(c)
2. Records of the 6-minute averages of the sparger tubes submergence level in the FGD shall be maintained and be available for inspection for a period of five years.	Rule 335-3-16-.05(c)
3. Records of any periods during which PS on the ESP are out of service in succession shall be maintained and be available for a period of five years. These records should include the initial time and date when the PS are out of service in succession and the duration of the period. Any corrective actions taken, including the date and time of the initiation of the actions, shall also be documented and be available for inspection for a period of five years.	Rule 335-3-16-.05(c)
4. A summary emission report shall be submitted to the Department within thirty days of the end of each calendar quarter. The report will contain the following:	Rule 335-3-16-.05(c)
<u>Opacity During FGD Operation</u>	
A. Source Operating Time (Fan On - Fan Off) (6-minute periods)	
B. Total time during which the ESP power level was not monitored and fans were in operation (6-minute periods)	
C. Total time during which the FGD sparger tubes submergence level was not monitored and fans were in operation (6-minute periods)	
D. Total time during which the ESP power level was less than 30 kW and the FGD sparger tubes submergence level was less than 5.0 inches while subject to the ESP power level and FGD sparger tube submergence level requirements (6-minute periods)	
E. Total time during which the ESP power level was less than 30 kW and the FGD sparger tubes submergence level was less than 5.0 inches during periods subject to work practice limitations (6-minute periods)	
F. Total time during which the PS were out of service in succession and the FGD sparger tubes submergence level was less than 5.0 inches while subject to the ESP power level and FGD sparger tube submergence level requirements (6-minute periods)	
G. Total time during which the PS were out of service in succession and the FGD sparger tubes submergence level was less than 5.0 inches while subject to the work practice limitations (6-minute periods)	
H. Total time fans on and fire off (6-minute periods)	

Federally Enforceable Provisos	Regulations
<p><u>Opacity During FGD Bypass</u></p> <p>A. Source Operating Time (Fan On - Fan Off) (6-minute periods)</p> <p>B. Total time during which the ESP power level was not monitored and fans were in operation (6-minute periods)</p> <p>C. Total time during which the ESP power level was less than 30 kW while subject to the ESP power level requirement (6-minute periods)</p> <p>D. Total time during which the ESP power level was less than 30 kW during periods subject to work practice limitations (6-minute periods)</p> <p>E. Total time during which the PS were out of service in succession (channeling) while subject to the ESP power level requirements (6-minute periods)</p> <p>F. Total time during which the PS were out of service in succession (channeling) during periods subject to work practice limitations (6-minute periods)</p> <p>G. Total time fans on and fire off (6-minute periods)</p>	
<p><u>SO₂</u></p> <p>A. Source Operating Time (all times and periods in hours)</p> <p>B. Time Monitor System was Able to Record Source Performance *</p> <p>C. Monitor Availability (%) = $B/A \times 100^{**}$</p> <p>D. Total Excess Emission Periods where the CEM data may indicate emissions above standards ***</p> <p>E. Overall Source Performance (%) = $[(B - D)/B] \times 100$</p> <p>F. Overall Exceedances (%) - Percent of time above the standard due to all reasons:</p> <p style="padding-left: 40px;">= 100 - E</p> <p>* Information identifying each period during which the monitoring systems were inoperative (except for zero and span checks) and the nature of the system repairs or adjustments will be maintained and made available upon request.</p> <p>** For units that did not operate in a reporting quarter, items C-F above are not required. A statement that the unit did not operate should be included in the report.</p> <p>*** Report date, time duration, magnitude, cause and corrective action taken for each occurrence. SO₂ emissions rate (lb/MMBtu) will be computed as a 24-hour rolling average.</p> <p>NOTE: Data recorded during periods of system breakdowns, repairs, adjustments, and calibration checks shall not be included in any of the above data averages.</p>	

Federally Enforceable Provisos	Regulations
5. The facility shall comply with the recordkeeping and reporting requirements of CSAPR found in ADEM Admin. Code r. Rules 335-3-5-.31, 335-3-5-.35, and 335-3-8-.33, 335-3-8-.37, 335-3-8-.65 and 335-3-8-.69.	Rules 335-3-5-.31, 335-3-5-.35
6. The permittee shall submit compliance reports at least semiannually and in accordance with MATS requirements. These reports may be included in the quarterly monitoring reports that the permittee is otherwise required by the MSOP to submit.	Rules 335-3-8-.33, 335-3-8-.37, 335-3-8-.65, 335-3-8-.69 Rule 335-3-11-.06(124) (incorporating 40 CFR Part 63 Subpart UUUUU)
7. By January 31 of each year, the permittee shall submit to the Department its determination of the operating load that constitutes normal minimum load and normal full load for this unit.	Rule 335-3-16-.05(c)
8. The permittee shall comply with the recordkeeping and reporting requirements of the Mandatory Greenhouse Gas Reporting Rule in 40 CFR Part 98.	40 CFR Part 98
<u>Acid Rain Requirements</u>	
1. This unit is subject to the Acid Rain Program contained in 40 CFR Parts 72, 73, 75, and 76. Applicable Acid Rain permits are contained in the Acid Rain portion of this Operating Permit.	Rule 335-3-18 & 40 CFR Parts 72, 73, 75, and 76
<u>CSAPR Requirements</u>	
1. This unit is subject to the applicable provisions of the Cross-State Air Pollution Rule (CSAPR) to include all applicable provisions of the SO ₂ Group 2 Trading Program requirements.	Rules 335-3-5-.06 through 335-3-5-.36
2. This unit is subject to the applicable provisions of CSAPR to include all applicable provisions of the NO _x Annual and Seasonal Trading Program requirements.	Rules 335-3-8-.07 through 335-3-8-.70

Summary Page for Combined Cycle Electric Generating Units

Permitted Operating Schedule: 8760 Hrs/yr

Emission limitations:

Emission Point #	Description	Pollutant	Emission limit per CT/HRSG	Regulation
6A, 6B	Combined Cycle Units 6A & 6B (Combustion turbine/duct burner stack for each unit)	PM	0.011 lb/MMBtu and 22.4 lb/hr	Rule 335-3-14-.04(9)(b) BACT
		Opacity	10%	Rule 335-3-14-.04(9)(b)
		SO ₂	1.8 lb/MMBtu	Rule 335-3-5-.01(1)(a)
			150 ppmvd at 15% O ₂ or Fuel Sulfur limit of 0.8%	40 CFR 60.333
		NO _x	0.013 lb/MMBtu and 27.7 lb/hr	Rule 335-3-14-.04(9)(b) BACT
			DB – 0.20 lb/MMBtu	40 CFR 60.44b(a)
			STD = $(0.0075(14.4)/Y) + F$	40 CFR 60.332(a)(1)
7A, 7B	Combined Cycle Units 7A & 7B (Combustion turbine/duct burner stack for each unit)	CO	0.06 lb/MMBtu and 127.0 lb/hr	Rule 335-3-14-.04(9)(b) BACT
		VOC	0.015 lb/MMBtu and 31.8 lb/hr	Rule 335-3-14-.04(9)(b) BACT
		PM	0.011 lb/MMBtu and 22.4 lb/hr	Rule 335-3-14-.04(9)(b) BACT
		Opacity	10%	Rule 335-3-14-.04(9)(b)
		SO ₂	1.8 lb/MMBtu	Rule 335-3-5-.01(1)(a)
			150 ppmvd at 15% O ₂ or Fuel Sulfur limit of 0.8%	40 CFR 60.333

		NO _x	0.013 lb/MMBtu and 27.7 lb/hr	Rule 335-3-14-.04(9)(b) BACT
			DB – 0.20 lb/MMBtu	40 CFR 60.44b(a)
			$STD = (0.0075(14.4)/Y) + F$	40 CFR 60.332(a)(1)
		CO	0.06 lb/MMBtu and 127.0 lb/hr	Rule 335-3-14-.04(9)(b) BACT
		VOC	0.015 lb/MMBtu and 31.8 lb/hr	Rule 335-3-14-.04(9)(b) BACT

Provisos for Combined Cycle Electric Generating Units

Federally Enforceable Provisos

Regulations

Applicability

- | | |
|--|--|
| 1. These units are subject to the provisions of ADEM Admin. Code r. 335-3-16, "Major Source Operating Permits." | Rule 335-3-16 |
| 2. These units are subject to the applicable requirements of ADEM Admin. Code r. 335-3-14-.04, "Air Permits Authorizing Construction in Clean Air Areas [Prevention of Significant Deterioration]." | Rule 335-3-14-.04 |
| 3. The combustion turbines associated with these units are subject to the provisions of ADEM Admin. Code r. 335-3-10-.02(33), 40 CFR Part 60 Subpart GG, "Standards of Performance for Stationary Gas Turbines." | Rule 335-3-10-.02(33)
40 CFR Part 60,
Subpart GG |
| 4. The duct burners associated with these units are subject to the provisions of ADEM Admin. Code r. 335-3-10-.02(2)(b), 40 CFR Part 60 Subpart Db, "Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units." | Rule 335-3-10-.02(2)(b)
40 CFR Part 60,
Subpart Db |
| 5. Where an applicable requirement of the Act is more stringent than an applicable requirement of regulations promulgated under Title IV of the Act, both provisions are incorporated as enforceable conditions of this permit. | Rule 335-3-16-.05(a)2 |
| 6. These units are subject to the applicable provisions of the Cross-State Air Pollution Rule (CSAPR) found in ADEM Admin. Code r. 335-3-5-.06 through 335-3-5-.36 and ADEM Admin. Code r. 335-3-8-.07 through 335-3-8-.70. | Rules 335-3-5-.06
through 335-3-5-.36
and Rules 335-3-8-.07
through 335-3-8-.70 |
| 7. These units are subject to the applicable provisions of 40 CFR Part 64, "Compliance Assurance Monitoring" for NO _x emissions. | 40 CFR Part 64 |
| 8. These units are subject to the applicable provisions of 40 CFR Part 98, "Mandatory Greenhouse Gas Reporting." | 40 CFR Part 98 |

Emission Standards

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|--|---|
| 1. Emissions exceeding any allowances that the source lawfully holds under Title IV of the Act or the regulations promulgated thereunder are prohibited. | Rule 335-3-16-.05(d) |
| 2. The SO ₂ emission rate shall not exceed 1.8 lb/MMBtu. | Rule 335-3-5-.01(1)(a) |
| 3. NO _x emissions in the gas stream from the turbines shall not exceed that which is determined by the equation in 40 CFR 60.332(a)(1). | Rule 335-3-10-.02(2)(b)
(incorporating 40 CFR
60.332(a)(1)) |

Federally Enforceable Provisos	Regulations
<p>4. These units shall comply with one or the other of the following conditions:</p> <p>a) SO₂ emissions in the gas stream from the turbines shall not exceed 0.015% by volume (150 ppmvd) at 15% oxygen and on a dry basis.</p> <p>b) The permittee shall not burn in any stationary gas turbine any fuel which contains total sulfur in excess of 0.8 percent by weight (8000 ppmw).</p>	<p>Rule 335-3-10-.02(2)(b) (incorporating 40 CFR 60.333)</p>
<p>5. NO_x emissions from the duct burners shall not exceed 0.20 lb/MMBtu.</p>	<p>Rule 335-3-10-.02(2)(b) (incorporating 40 CFR 60.44b(a))</p>
<p>6. The turbines and duct burners shall fire only natural gas.</p>	<p>Rule 335-3-14-.04(9)(b) BACT</p>
<p>7. The CT's and DB's are subject to numeric emission limitations and work practice (WP) limitations as specified in Provisos 8 thru 13 below.</p>	
<p>8. Except as provided by Proviso 13 below, the NO_x emission rate from each combined turbine/duct burner stack shall not exceed 0.013 lb/MMBtu and 27.7 lb/hr.</p>	<p>Rule 335-3-14-.04(9)(b) BACT</p>
<p>9. Except as provided by Proviso 13 below, the CO emission rate from each of the combined turbine/duct burner stack shall not exceed 0.06 lb/MMBtu and 127.0 lb/hr.</p>	<p>Rule 335-3-14-.04(9)(b) BACT</p>
<p>10. Except as provided by Proviso 13 below, the VOC emission rate from each of the combined turbine/duct burner stack shall not exceed 0.015 lb/MMBtu and 31.8 lb/hr.</p>	<p>Rule 335-3-14-.04(9)(b) BACT</p>
<p>11. Except as provided by Proviso 13 below, the PM emission rate from each of the combined turbine/duct burner stack shall not exceed 0.011 lb/MMBtu and 22.4 lb/hr.</p>	<p>Rule 335-3-14-.04(9)(b) BACT</p>
<p>12. Except as provided by Proviso 13 below, visible emissions from each combined turbine and duct burner stack shall not exceed 10% opacity.</p>	<p>Rule 335-3-14-.04(9)(b) BACT</p>

Federally Enforceable Provisos	Regulations
<p>13. During periods of startup, shutdown and load change (as defined in Proviso 14 below), the permittee shall comply with the following work practice limitations in lieu of the numerical limitations in Provisos 8-12 above:</p> <ul style="list-style-type: none"> (a) The permittee shall take all reasonable actions to minimize the magnitude and duration of emissions during the periods listed above. (b) Employ good operation and maintenance practices on the Turbines and Duct Burners, including on associated pollution control technology. (c) Comply with emissions monitoring, recordkeeping, and reporting requirements in this permit. (d) During periods of startup of the CT, the permittee shall initiate reagent flow in the SCR once the flue gas reaches the requisite temperature for NO_x control. (e) During periods of startup of the DB, periods of shutdown of the DB, or any other periods of load change, the permittee shall maintain reagent flow in the SCR consistent with technological limitations, manufacturers' specifications, and good engineering and maintenance practices for SCR and so as to minimize NO_x emissions to the extent reasonably practicable. (f) During periods of shutdown of the CT, the permittee shall maintain reagent flow in the SCR until the flue gas temperature falls below the requisite temperature for NO_x control. 	Rule 335-3-16-.05(a)
<p>14. Startup, shutdown, and load change are as defined below:</p> <ul style="list-style-type: none"> (a) Startup – The period from when the combustion turbine is started until it reaches “Dry Low NO_x (DLN)” mode of combustion. (b) Shutdown – The period when the load on the combustion turbine is decreasing from Dry Low NO_x (DLN) mode of combustion. (c) Load Change – A change in heat input that creates a transient operating condition that is readily identifiable on the load chart recording. 	Rule 335-3-16-.05(a)
<u>Compliance and Performance Test Methods and Procedures</u>	
<p>1. Compliance with the Emissions Standards Proviso 8 for NO_x shall be determined by EPA Reference Method 20 or 7E as found in Appendix A of 40 CFR Part 60.</p>	Rule 335-3-1-.05
<p>2. Compliance with Emissions Standards Proviso 5 for NO_x shall be determined by either of the procedures described in paragraph (f)(1) or (2) of 40 CFR 60.46b.</p>	40 CFR 60.46b(f)

Federally Enforceable Provisos	Regulations
3. Compliance with the SO ₂ emission standards shall be determined by EPA Reference Method 6 as found in Appendix A of 40 CFR Part 60.	Rule 335-3-1-.05
4. Compliance with the CO emission standards shall be determined by EPA Reference Method 10 as found in Appendix A of 40 CFR Part 60.	Rule 335-3-1-.05
5. Compliance with the VOC emission standards shall be determined by EPA Reference Method 25, 25A, or 25B, as found in Appendix A of 40 CFR Part 60.	Rule 335-3-1-.05
6. Compliance with the PM standards shall be determined by EPA Reference Method 5 or 17, as found in Appendix A of 40 CFR Part 60.	Rule 335-3-1-.05
7. Compliance with the opacity standard shall be determined by EPA Reference Method 9 as found in Appendix A of 40 CFR Part 60.	Rule 335-3-1-.05
<u>Emission Monitoring</u>	
1. A continuous emissions monitoring system (CEMS) to measure NO _x emissions shall be installed and operated at a location approved by the Director. The CEMS shall meet the specification and procedures of 40 CFR Part 75 and will be certified and maintained in accordance with 40 CFR Part 75.	Rule 335-3-14-.04 40 CFR Part 75 Rule 335-3-16-.05(c) 40 CFR Part 64
<u>Recordkeeping and Reporting Requirements</u>	
1. These units are subject to the applicable requirements of 40 CFR Part 64, "Compliance Assurance Monitoring" to include the Reporting and Recordkeeping Requirements in 40 CFR §64.9.	40 CFR 64.9
2. An excess emissions report for each combined turbine/duct burner stack will be submitted to the ADEM within thirty days of the end of each calendar quarter. The report will contain the following format:	Rule 335-3-16-.05(c) Rule 335-3-10-.02(1) Rule 335-3-10-.04 40 CFR Part 64
<u>NO_x</u>	
A. Source Operating Time (all times and periods in hours)	
B. Time Monitoring System was Able to Record Source Performance *	
C. Monitor Availability (%) = B/A x 100	
D. Total Periods where the CEM data may indicate emissions above the numerical limitation **	
E. Overall Source Performance (%) = [(B - D)/B] x 100	
F. Number of periods above the numerical limitation during periods subject to work practice limitations – F _(x) (3-hour periods)	
F ₁ = Startup/Shutdown	

Federally Enforceable Provisos	Regulations
<p>F_2 = Load Change</p> <p>G. Net Excess Emissions = $D - \sum F(x)$</p> <p>H. Net Source Performance (%) - $H(x)$:</p> $= [1 - (G / (B - \sum F(x)))] \times 100$ $= [(B - \sum F(x) - G) / (B - \sum F(x))] \times 100$ <p>I. Overall Exceedances (%) - Percent of time above the numeric limitations due to all reasons:</p> $= (D/B) \times 100$ <p>J. Net Exceedances (%) - Percent of time above the numeric limitation during periods subject to the numerical limitation:</p> $= [(B - \sum F(x)) / B] \times 100$ <p>K. Percent of time above the numeric limitation during periods subject to work practice limitations</p> $SU/SD = (F_1/B) \times 100$ $\text{Load Change} = (F_2/B) \times 100$ <p>* Information identifying each period during which the monitoring systems were inoperative (except for zero and span checks) and the nature of the system repairs or adjustments will be maintained and made available upon request.</p> <p>** Report date, time duration, magnitude, cause and corrective action taken for each occurrence. NO_x emissions rate (lb/MMBtu) will be computed as a 3-hour rolling average.</p> <p>NOTE: Data recorded during periods of system breakdowns, repairs, adjustments, and calibration checks shall not be included in any of the above data averages.</p> <p>3. The permittee shall comply with the recordkeeping and reporting requirements of the Mandatory Greenhouse Gas Reporting Rule in 40 CFR Part 98.</p> <p>4. The facility shall comply with the recordkeeping and reporting requirements of CSAPR found in Rules 335-3-5-.31, 335-3-5-.35, 335-3-8-.33, 335-3-8-.37, 335-3-8-.65, and 335-3-8-.69.</p>	<p>40 CFR Part 98</p> <p>Rules 335-3-5-.31, 335-3-5-.35</p> <p>Rules 335-3-8-.33, 335-3-8-.37, 335-3-8-.65, 335-3-8-.69</p>
<p><u>Acid Rain Requirements</u></p>	
<p>1. These units are subject to the Acid Rain Program contained in Rule 335-3-18 and 40 CFR Part 72, 73, and 75. The applicable Acid Rain Permit is contained in the Acid Rain portion of this Operating Permit.</p>	<p>Rule 335-3-18 and 40 CFR Parts 72, 73, and 75</p>
<p><u>CSAPR Requirements</u></p>	

Federally Enforceable Provisos	Regulations
1. These units are subject to the applicable provisions of the Cross-State Air Pollution Rule (CSAPR) to include all applicable provisions of the SO ₂ Group 2 Trading Program requirements.	Rules 335-3-5-.06 through 335-3-5-.36
2. These units are subject to the applicable provisions of CSAPR to include all applicable provisions of the NO _x Annual and Seasonal Trading Program requirements.	Rules 335-3-8-.07 through 335-3-8-.70

Summary Page for Solid Fuel Handling Systems

Permitted Operating Schedule: 8760 Hrs/yr

Emission limitations:

Emission Point #	Description	Pollutant	Emission limit	Regulation
SF Fugitive	Solid Fuel Handling Systems	PM	N/A	N/A

Provisos for Solid Fuel Handling Systems

Federally Enforceable Provisos	Regulations
<hr/>	
<u>Applicability</u>	
1. These units are subject to the provisions of ADEM Admin. Code r. 335-3-16, "Major Source Operating Permits."	Rule 335-3-16
<u>Emission Standards</u>	
1. These units are subject to no additional source specific emissions standards other than those listed in the General Provisos.	N/A
<u>Compliance and Performance Test Methods and Procedures</u>	
1. There are no source specific compliance and performance test methods associated with these units.	N/A
<u>Emission Monitoring</u>	
1. There are no source specific emissions monitoring provisions for these units.	N/A
<u>Recordkeeping and Reporting Requirements</u>	
1. There are no source specific recordkeeping and reporting requirements for these units.	N/A

Summary Page for Limestone Handling System

Permitted Operating Schedule: 8760 Hrs/yr

Emission limitations:

Emission Point #	Description	Pollutant	Emission limit	Regulation
X007 – EP1	Limestone Handling System – Limestone Silo	PM	0.09 lb/ton limestone	Rule 335-3-14-.04 Anti-PSD
			300,000 TPY limestone handled	Rule 335-3-14-.04 Anti-PSD

Provisos for Limestone Handling System

Federally Enforceable Provisos	Regulations
<u>Applicability</u>	
1. This system is subject to the provisions of ADEM Admin. Code r. 335-3-16, "Major Source Operating Permits."	Rule 335-3-16
2. This system has enforceable limits in place to prevent it from being subject to the provisions of ADEM Admin. Code r. 335-3-14-.04 "Air Permits Authorizing Construction in Clean Air Areas [Prevention of Significant Deterioration]."	Rule 335-3-14-.04
<u>Emission Standards</u>	
1. The PM emission rate from the limestone silo shall not exceed 0.09 lb/ton of limestone handled.	Rule 335-3-14-.04 Anti-PSD
2. The amount of limestone handled by this system shall not exceed 300,000 tons in any consecutive 12-month period.	Rule 335-3-14-.04 Anti-PSD
<u>Compliance and Performance Test Methods and Procedures</u>	
1. Compliance with the PM emission standard shall be determined by EPA Reference Method 5 or 17, as found in Appendix A of 40 CFR Part 60, or by another method approved by the Department.	Rule 335-3-1-.05
2. Compliance with the opacity standard, as stated in General Proviso 29, shall be determined by Method 9, as found in Appendix A of 40 CFR Part 60.	Rule 335-3-1-.05
<u>Emission Monitoring</u>	
1. At least once per calendar quarter, the permittee shall conduct a maintenance inspection of the limestone silo dust collector to ensure proper operation for optimum control efficiency. Repairs shall be made, as necessary, prior to further source operation.	Rule 335-3-16-.05(c)
2. At any time during operation, should the permittee observe visible emissions from this source, corrective action should be performed in order to alleviate said visible emissions.	Rule 335-3-16-.05(c)
<u>Recordkeeping and Reporting Requirements</u>	
1. Records shall be maintained of the quarterly maintenance inspections, repairs made, instances of visible emissions noted, and corrective measures taken to alleviate said visible emissions. These records shall be maintained in a manner suitable for inspection for a period of 5 years from record generation.	Rule 335-3-16-.05(c)
2. The permittee shall maintain records of the amount of limestone handled on a monthly basis and totaled on a 12-month rolling basis.	Rule 335-3-14-.04 Anti-PSD

Summary Page for Natural Gas Conditioning Station Heater
Permitted
Operating Schedule: 8760 Hrs/yr

Emission limitations:

Emission Point #	Description	Pollutant	Emission limit	Regulation
X010- EP1	Natural Gas Conditioning Station Heater (10.6 MMBtu/hr)	Opacity	See General Provisos	Rule 335-3-4-.01(1)
		SO ₂	1.8 lb/MMBtu	Rule 335-3-5-.01(1)(a)
		PM	$E = 1.38H^{-0.44}$ Where: E = emissions in lb/MMBtu H = heat input in MMBtu/hr	Rule 335-3-4-.03(1)

Provisos for Natural Gas Conditioning Station Heater

Federally Enforceable Provisos

Regulations

Applicability

- | | |
|---|-------------------------|
| 1. This unit is subject to the provisions of ADEM Admin. Code r. 335-3-16, "Major Source Operating Permits." | Rule 335-3-16 |
| 2. This unit is subject to the applicable provisions of 40 CFR Part 63, Subpart DDDDD, "National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters." | Rule 335-3-11-.06(107) |
| 3. This unit is subject to the applicable provisions of 40 CFR Part 60, Subpart Dc, "Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units." | Rule 335-3-10-.02(2)(c) |
| 4. This unit is subject to the applicable provisions of 40 CFR Part 98, "Mandatory Greenhouse Gas Reporting." | 40 CFR Part 98 |

Emission Standards

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|---|--|
| 1. The SO ₂ emission rate shall not exceed 1.8 lb/MMBtu. | Rule 335-3-5-.01(1)(a) |
| 2. The PM emission rate shall not exceed the allowable as determined by the equation contained in ADEM Admin. Code r. 335-3-4-.03(1). | Rule 335-3-4-.03(1) |
| 3. The permittee shall not discharge to the atmosphere particulate of an opacity greater than 20%, as determined by a six-minute average, except that during one six-minute period in any sixty (60) minute period, the permittee may discharge into the atmosphere particulate of an opacity not greater than 40%. | Rule 335-3-4-.01(1) |
| 4. An annual tune-up of this unit shall be conducted as required by the applicable work practice standards listed in Table 3 of 40 CFR Part 63 Subpart DDDDD. | Rule 335-3-11-.06(107)
(incorporating 40 CFR 63.7500) |

Compliance and Performance Test Methods and Procedures

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| 1. Compliance with the PM emission standard shall be determined by EPA Reference Method 5 or 17, as found in Appendix A of 40 CFR Part 60. | Rule 335-3-1-.05 |
| 2. Compliance with the SO ₂ emission standard shall be determined by EPA Reference Method 6, as found in Appendix A of 40 CFR Part 60. | Rule 335-3-1-.05 |
| 3. Compliance with the opacity standard shall be determined by EPA Reference Method 9 as found in Appendix A of 40 CFR Part 60. | Rule 335-3-1-.05 |

Emission Monitoring

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|--|--|
| 1. There are no specific emission monitoring requirements for this unit. | |
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Federally Enforceable Provisos	Regulations
<u>Recordkeeping and Reporting Requirements</u>	
1. The permittee shall comply with the applicable recordkeeping and reporting requirements of 40 CFR Part 63 Subpart DDDDD.	Rule 335-3-11-.06(107) (incorporating 40 CFR 63.7550 and 63.7555)
2. The permittee shall comply with the applicable recordkeeping requirements of 40 CFR Part 60 Subpart Dc.	Rule 335-3-10-.02(2)(c) (incorporating 40 CFR 60.48c)
3. The permittee shall comply with the recordkeeping and reporting requirements of the Mandatory Greenhouse Gas Reporting Rule in 40 CFR Part 98.	40 CFR Part 98

Summary Page for Natural Gas-Fired Auxiliary Boiler
Permitted
Operating Schedule: 8760 Hrs/yr

Emission limitations:

Emission Point #	Description	Pollutant	Emission limit	Regulation
X011-EP1	Natural Gas-Fired Auxiliary Boiler (275 MMBtu/hr)	Opacity	See General Provisos	Rule 335-3-4-.01(1)
		SO ₂	1.8 lb/MMBtu	Rule 335-3-5-.01(1)(a)
		PM	0.12 lb/MMBtu	Rule 335-3-4-.03(1)
		NO _x	0.20 lb/MMBtu	40 CFR 60.44b(a)

Provisos for Natural Gas-Fired Auxiliary Boiler

Federally Enforceable Provisos

Regulations

Applicability

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| 1. This unit is subject to the provisions of ADEM Admin. Code r. 335-3-16, "Major Source Operating Permits." | Rule 335-3-16 |
| 2. This unit is subject to the applicable provisions of 40 CFR Part 63, Subpart DDDDD, "National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters." | Rule 335-3-11-.06(107) |
| 3. This unit is subject to the applicable provisions of 40 CFR Part 60, Subpart Db, "Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units." | Rule 335-3-10-.02(2)(b) |
| 4. This unit is subject to the applicable provisions of 40 CFR Part 98, "Mandatory Greenhouse Gas Reporting." | 40 CFR Part 98 |

Emission Standards

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|---|---|
| 1. The SO ₂ emission rate shall not exceed 1.8 lb/MMBtu. | Rule 335-3-5-.01(1)(a) |
| 2. The PM emission rate shall not exceed 0.12 lb/MMBtu. | Rule 335-3-4-.03(1) |
| 3. The permittee shall not discharge to the atmosphere particulate of an opacity greater than 20%, as determined by a six-minute average, except that during one six-minute period in any sixty (60) minute period, the permittee may discharge into the atmosphere particulate of an opacity not greater than 40%. | Rule 335-3-4-.01(1) |
| 4. The NO _x emissions rate shall not exceed 0.20 lb/MMBtu, computed on a 30-day rolling average. This limit applies at all times, including startup, shutdown, and malfunction. | Rule 335-3-10-.02(2)(b)
(incorporating 40 CFR 60.44b(a)) |
| 5. The permittee shall conduct an annual tune-up of this unit unless the unit employ's a continuous oxygen trim system to maintain an optimum air to fuel ratio, in which case the tune up must be performed once every five years. The tune-up shall be conducted as specified in 40 CFR §63.7540. | Rule 335-3-11-.06(107)
(incorporating 40 CFR 63.7500) |

Compliance and Performance Test Methods and Procedures

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| 1. Compliance with the PM emission standard shall be determined by EPA Reference Method 5 or 17, as found in Appendix A of 40 CFR Part 60. | Rule 335-3-1-.05 |
| 2. Compliance with the SO ₂ emission standard shall be determined by EPA Reference Method 6, as found in Appendix A of 40 CFR Part 60. | Rule 335-3-1-.05 |
| 3. Compliance with the opacity standard shall be determined by EPA Reference Method 9 as found in Appendix A of 40 CFR Part 60. | Rule 335-3-1-.05 |

Federally Enforceable Provisos	Regulations
4. Compliance with the NO _x emission standard shall be determined by CEMS.	40 CFR Part 60 Subpart Db
<u>Emission Monitoring</u>	
1. NO _x emissions shall be monitored continuously with CEMS. The installed Continuous NO _x Emissions Monitor will be operated, maintained, and certified using 40 CFR Part 60 procedures.	Rule 335-3-10-.02(2)(b) (incorporating 40 CFR 60.48b(b))
<u>Recordkeeping and Reporting Requirements</u>	
1. The permittee shall comply with the applicable recordkeeping and reporting requirements of 40 CFR Part 63 Subpart DDDDD.	Rule 335-3-11-.06(107) (incorporating 40 CFR 63.7550 and 63.7555)
2. The permittee shall comply with the applicable recordkeeping and reporting requirements of 40 CFR Part 60 Subpart Db.	Rule 335-3-10-.02(2)(b) (incorporating 40 CFR 60.49b)
3. The permittee shall comply with the recordkeeping and reporting requirements of the Mandatory Greenhouse Gas Reporting Rule in 40 CFR Part 98.	40 CFR Part 98

Summary Page for Stationary Reciprocating Internal Combustion Engines

**Permitted Operating
Schedule:**

Hrs/yr for
8760 Emergency Use*

*See unit specific emission standards for operating limitations

Emission limitations:

Emission Point #	Description	Pollutant	Emission limit	Regulation
E01	Units 1 & 2 Emergency Generator	Opacity		See General Provisos
E02	Unit 4 Emergency Generator			
E03	Unit 5 Emergency Generator			
E04	Main Security Gate Emergency Generator			
E05	Contractor Guard Gate Emergency Generator			
X012-EP1	Fire Pump #1			
E07	Fire Pump #2			
E08	Unit 3 Pump Room Engine			
E09	Air Compressor Engine #1			
E10	Air Compressor Engine #2			
E11	Unit 6 Emergency Generator			
E12	Unit 7 Emergency Generator			
E13-E20	Security Camera Engines 1-8			

Provisos for Unit 1 & 2 Emergency Generator and Unit 4 Emergency Generator

Federally Enforceable Provisos	Regulations
<u>Applicability</u>	
1. These units are subject to the provisions of ADEM Admin. Code r. 335-3-16, "Major Source Operating Permits."	Rule 335-3-16
2. These units are subject to the provisions of ADEM Admin. Code r. 335-3-10-.02(87), "Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (Subpart III)" and 335-3-11-.06(103), "National Emissions Standards for Hazardous Air Pollutant Emissions from Stationary Reciprocating Internal Combustion Engines (Subpart ZZZZ)."	Rule 335-3-10-.02(87) Rule 335-3-11-.06(103)
<u>Emission Standards</u>	
1. As new emergency stationary RICE with displacements less than 30 liters per cylinder and are not fire pump engines, these units are subject to the emission standards specified in 40 CFR 60.4202.	Rule 335-3-10-.02(87) (incorporating 40 CFR 60.4205(b))
2. These units must use diesel fuel that meets the requirements in 40 CFR 80.510(b) for nonroad diesel fuel.	Rule 335-3-10-.02(87) (incorporating 40 CFR 60.4207(b))
3. These units must be operated and maintained as specified in 40 CFR 60.4211(a).	Rule 335-3-10-.02(87) (incorporating 40 CFR 60.4211(a))
4. As emergency stationary RICE, any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for more than 50 hours per year, as described below, is prohibited.	Rule 335-3-10-.02(87) (incorporating 40 CFR 60.4211(f))
(a) There is no limit on the use of emergency stationary RICE in emergency situations.	
(b) The emergency stationary RICE may be operated for any combination of the purposes specified in 40 CFR 60.4211(f)(2)(i) and 60.4211(f)(3) for a maximum of 100 hours per calendar year.	
<u>Compliance and Performance Test Methods and Procedures</u>	
1. The permittee shall comply with the emission standards by purchasing an engine certified by the manufacturer to the emission standards in 40 CFR 60.4202(a)(2), as applicable, for the same model year and maximum engine power.	Rule 335-3-10-.02(87) (incorporating 40 CFR 60.4211(c))

Federally Enforceable Provisos	Regulations
<u>Emission Monitoring</u>	
1. These units must be equipped with non-resettable hour meters.	Rule 335-3-10-.02(87) (incorporating 40 CFR 60.4209(a))
<u>Recordkeeping and Reporting Requirements</u>	
1. The permittee shall keep records of the operation of these engines in emergency and non-emergency service that are recorded through the non-resettable hour meters. The permittee must also record the time of operation of the engine and the reason the engine was in operation during that time.	Rule 335-3-10-.02(87) (incorporating 40 CFR 60.4214(b))
<u>Alternate Operating Scenario</u>	
1. If these units are operated as non-emergency stationary RICE, the permittee shall notify ADEM and comply with the applicable provisions of ADEM Admin. Code r. 335-3-10-.02(87), “Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (Subpart III)” and 335-3-11-.06(103), “National Emissions Standards for Hazardous Air Pollutant Emissions from Stationary Reciprocating Internal Combustion Engines (Subpart ZZZZ)” notwithstanding other provisions of this permit to the contrary.	Rule 335-3-10-.02(87) (incorporating 40 CFR Part 60 Subpart III)

Provisos for Unit 5 Emergency Generator

Federally Enforceable Provisos	Regulations
<u>Applicability</u>	
1. This unit is subject to the provisions of ADEM Admin. Code r. 335-3-16, "Major Source Operating Permits."	Rule 335-3-16
2. This unit is exempt from the provisions of ADEM Admin. Code r. 335-3-11-.06(103), "National Emission Standards for Hazardous Air Pollutant Emissions from Stationary Reciprocating Internal Combustion Engines (Subpart ZZZZ)" provided it continues to meet the definition of emergency stationary RICE and does not operate or is not contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in §63.6640(f)(2)(ii) and (iii).	Rule 335-3-11-.06(103) (incorporating 40 CFR 63.6590(b)(3)(iii))
<u>Emission Standards</u>	
1. As an emergency stationary RICE unit, any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for more than 50 hours each per year, as described below, is prohibited. <ul style="list-style-type: none"> (a) There is no limit on the use of emergency stationary RICE in emergency situations. (b) The emergency stationary RICE may be operated for any combination of the purposes specified in 40 CFR 63.6640(f)(2)(i) and 63.6640(f)(3) for a maximum of 100 hours per calendar year. 	Rule 335-3-11-.06(103) (incorporating 40 CFR 63.6640(f))
<u>Compliance and Performance Test Methods and Procedures</u>	
1. There are no source specific compliance and performance test methods associated with this unit.	N/A
<u>Emission Monitoring</u>	
1. There are no source specific monitoring requirements for this unit.	N/A
<u>Recordkeeping and Reporting Requirements</u>	
1. There are no source specific recordkeeping and reporting requirements for this source.	N/A

Federally Enforceable Provisos	Regulations
<p><u>Alternate Operating Scenario</u></p> <p>1. If this unit is operated as a non-emergency stationary RICE, the permittee shall notify ADEM and comply with the applicable provisions of ADEM Admin. Code r. 335-3-11-.06(103), “National Emissions Standards for Hazardous Air Pollutant Emissions from Stationary Reciprocating Internal Combustion Engines (Subpart ZZZZ)” notwithstanding other provisions of this permit to the contrary.</p>	<p>Rule 335-3-11-.06(103) (incorporating 40 CFR Part 63 Subpart ZZZZ)</p>

Provisos for Main Security Gate Emergency Generator, Contractor Guard Gate Emergency Generator, & Unit 3 Pump Room Engine

Federally Enforceable Provisos	Regulations
<u>Applicability</u>	
1. These units are subject to the provisions of ADEM Admin. Code r. 335-3-16, "Major Source Operating Permits."	Rule 335-3-16
2. These units are subject to the provisions of ADEM Admin. Code r. 335-3-10-.02(87), "Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (Subpart III)" and 335-3-11-.06(103), "National Emissions Standards for Hazardous Air Pollutant Emissions from Stationary Reciprocating Internal Combustion Engines (Subpart ZZZZ)."	Rule 335-3-10-.02(87) Rule 335-3-11-.06(103)
<u>Emission Standards</u>	
1. By meeting the applicable requirements of 40 CFR Part 60 Subpart IIII for the Main Security Gate Emergency Generator, the Contractor Guard Gate Emergency Generator, and the Unit 3 Pump Room Engine the permittee is considered to be in compliance with 40 CFR Part 63 Subpart ZZZZ.	Rule 335-3-11-.06(103) (incorporating 40 CFR 63.6590(c))
2. These units must comply with the emission standards for new nonroad CI engines in §60.4202(a), for all pollutants, for the same model year and maximum engine power.	Rule 335-3-10-.02(87) (incorporating 40 CFR 60.4205(b))
3. These units must use diesel fuel that meets the requirements in 40 CFR 80.510(b) for nonroad diesel fuel.	Rule 335-3-10-.02(87) (incorporating 40 CFR 60.4207(b))
4. As emergency stationary RICE units, any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for more than 50 hours each per year, as described below, is prohibited.	Rule 335-3-10-.02(87) (incorporating 40 CFR 60.4211(f))
(a) There is no limit on the use of emergency stationary RICE in emergency situations.	
(b) Each emergency stationary RICE may be operated for any combination of the purposes specified in 40 CFR 60.4211(f)(2)(i) and 60.4211(f)(3) for a maximum of 100 hours per calendar year.	
<u>Compliance and Performance Test Methods and Procedures</u>	
1. The permittee shall comply with Emission Standard Proviso 2 by purchasing an engine certified by the manufacturer to the emission standards in 40 CFR 60.4202(a)(2), as applicable, for the same model year and maximum engine power.	Rule 335-3-10-.02(87) (incorporating 40 CFR 60.4205(b) & 60.4202(a))

Federally Enforceable Provisos	Regulations
<p>2. The permittee must operate and maintain the CI internal combustion engine and control device (if any) according to the manufacturer's emission-related written instructions; change only those emission-related settings that are permitted by the manufacturer and meet the requirements of 40 CFR Parts 89, 94 and/or 1068, as they apply to you.</p>	<p>Rule 335-3-10-.02(87) (incorporating 40 CFR 60.4211(a))</p>
<p><u>Emission Monitoring</u></p>	
<p>1. The Main Security Gate Emergency Generator, the Contractor Guard Gate Emergency Generator, and the Unit 3 Pump Room Engine must each be equipped with a non-resettable hour meter.</p>	<p>Rule 335-3-10-.02(87) (incorporating 40 CFR 60.4209(a))</p>
<p><u>Recordkeeping and Reporting Requirements</u></p>	
<p>1. There are no specific recordkeeping or reporting requirements for these units.</p>	<p>N/A</p>
<p><u>Alternate Operating Scenario</u></p>	
<p>1. If these units are operated as non-emergency stationary RICE, the permittee shall notify ADEM and comply with the applicable provisions of ADEM Admin. Code r. 335-3-10-.02(87), "Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (Subpart III)" and 335-3-11-.06(103), "National Emissions Standards for Hazardous Air Pollutant Emissions from Stationary Reciprocating Internal Combustion Engines (Subpart ZZZZ)" notwithstanding other provisions of this permit to the contrary.</p>	<p>Rule 335-3-10-.02(87) (incorporating 40 CFR Part 60 Subpart III)</p> <p>Rule 335-3-11-.06(103)</p>

Provisos for Fire Pump #1 and Fire Pump #2

Federally Enforceable Provisos	Regulations
<u>Applicability</u>	
1. These units are subject to the provisions of ADEM Admin. Code r. 335-3-16, "Major Source Operating Permits."	Rule 335-3-16
2. These units are subject to the provisions of ADEM Admin. Code r. 335-3-10-.02(87), "Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (Subpart III)" and 335-3-11-.06(103), "National Emissions Standards for Hazardous Air Pollutant Emissions from Stationary Reciprocating Internal Combustion Engines (Subpart ZZZZ)."	Rule 335-3-10-.02(87) Rule 335-3-11-.06(103)
<u>Emission Standards</u>	
1. By meeting the applicable requirements of 40 CFR Part 60 Subpart IIII for Fire Pump #1 and Fire Pump #2, the permittee is considered to be in compliance with 40 CFR Part 63 Subpart ZZZZ.	Rule 335-3-11-.06(103) (incorporating 40 CFR 63.6590(c))
2. As new fire pump engines with a displacement of less than 30 liters per cylinder, these units are subject to the applicable requirements under Table 4 of 40 CFR Part 60 Subpart IIII.	Rule 335-3-10-.02(87) (incorporating 40 CFR 60.4205(c))
3. These units must use diesel fuel that meets the requirements in 40 CFR 80.510(b) for nonroad diesel fuel.	Rule 335-3-10-.02(87) (incorporating 40 CFR 60.4207(b))
4. As emergency stationary RICE, any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for more than 50 hours per year, as described below, is prohibited.	Rule 335-3-10-.02(87) (incorporating 40 CFR 60.4211(f))
(a) There is no limit on the use of emergency stationary RICE in emergency situations.	
(b) The emergency stationary RICE may be operated for any combination of the purposes specified in 40 CFR 60.4211(f)(2)(i) and 60.4211(f)(3) for a maximum of 100 hours per calendar year.	
<u>Compliance and Performance Test Methods and Procedures</u>	
1. The permittee shall comply with the emission standards by purchasing an engine certified by the manufacturer to the emission standards in 40 CFR 60.4202(d), as applicable, for the same model year and maximum engine power.	Rule 335-3-10-.02(87) (incorporating 40 CFR 60.4211(c))

Federally Enforceable Provisos	Regulations
<p>2. The permittee must operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's emission-related written instructions; change only those emission-related settings that are permitted by the manufacturer; and meet the requirements of 40 CFR Parts 89, 94 and/or 1068, as they apply to you.</p>	<p>Rule 335-3-10-.02(87) (incorporating 40 CFR 60.4211(a))</p>
<p><u>Emission Monitoring</u></p>	
<p>1. The Fire Pump #1 and Fire Pump #2 RICE must be equipped with non-resettable hour meters.</p>	<p>Rule 335-3-10-.02(87) (incorporating 40 CFR 60.4209(a))</p>
<p><u>Recordkeeping and Reporting Requirements</u></p>	
<p>1. The permittee shall keep records of the operation of the engines in emergency and non-emergency service that are recorded through the non-resettable hour meters. The permittee must also record the time of operation of each engine and the reason the engine was in operation during that time.</p>	<p>Rule 335-3-10-.02(87) (incorporating 40 CFR 60.4214(b))</p>
<p><u>Alternate Operating Scenario</u></p>	
<p>1. If these units are operated as non-emergency stationary RICE, the permittee shall notify ADEM and comply with the applicable provisions of ADEM Admin. Code r. 335-3-10-.02(87), "Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (Subpart III)" and 335-3-11-.06(103), "National Emissions Standards for Hazardous Air Pollutant Emissions from Stationary Reciprocating Internal Combustion Engines (Subpart ZZZZ)" notwithstanding other provisions of this permit to the contrary.</p>	<p>Rule 335-3-10-.02(87) Rule 335-3-11-.06(103)</p>

Provisos for Unit 6 and Unit 7 Emergency Generator Federally Enforceable Provisos	Regulations
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<u>Applicability</u>	
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| 1. These units are subject to the provisions of ADEM Admin. Code r. 335-3-16, "Major Source Operating Permits." | Rule 335-3-16 |
| 2. These units are subject to the provisions of ADEM Admin. Code r. 335-3-10-.02(87), "Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (Subpart III)" and 335-3-11-.06(103), "National Emissions Standards for Hazardous Air Pollutant Emissions from Stationary Reciprocating Internal Combustion Engines (Subpart ZZZZ)." | Rule 335-3-10-.02(87)
Rule 335-3-11-.06(103) |

<u>Emission Standards</u>	
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| 1. As new emergency stationary RICE with displacements less than 30 liters per cylinder and are not fire pump engines, these units are subject to the emission standards specified in 40 CFR 60.4202. | Rule 335-3-10-.02(87)
(incorporating 40 CFR 60.4205(b)) |
| 2. These units must use diesel fuel that meets the requirements in 40 CFR 80.510(b) for nonroad diesel fuel. | Rule 335-3-10-.02(87)
(incorporating 40 CFR 60.4207(b)) |
| 3. These units must be operated and maintained as specified in 40 CFR 60.4211(a). | Rule 335-3-10-.02(87)
(incorporating 40 CFR 60.4211(a)) |
| 4. As emergency stationary RICE, any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for more than 50 hours per year, as described below, is prohibited. | Rule 335-3-10-.02(87)
(incorporating 40 CFR 60.4211(f)) |
| (a) There is no limit on the use of emergency stationary RICE in emergency situations. | |
| (b) The emergency stationary RICE may be operated for any combination of the purposes specified in 40 CFR 60.4211(f)(2)(i) and 60.4211(f)(3) for a maximum of 100 hours per calendar year. | |

<u>Compliance and Performance Test Methods and Procedures</u>	
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| 1. The permittee shall comply with the emission standards by purchasing an engine certified by the manufacturer to the emission standards in 40 CFR 60.4202(a)(2), as applicable, for the same model year and maximum engine power. | Rule 335-3-10-.02(87)
(incorporating 40 CFR 60.4211(c)) |
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<u>Emission Monitoring</u>	
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| 1. These units must be equipped with a non-resettable hour meter. | Rule 335-3-10-.02(87)
(incorporating 40 CFR 60.4209(a)) |
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Federally Enforceable Provisos	Regulations
<u>Recordkeeping and Reporting Requirements</u>	
1. The permittee shall meet the initial notification requirements of 40 CFR 63.6645(f).	Rule 335-3-11-.06(103) (incorporating 40 CFR 63.6590(b)(1)(i))
2. The permittee shall keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The permittee must also record the time of operation of the engine and the reason the engine was in operation during that time.	Rule 335-3-10-.02(87) (incorporating 40 CFR 60.4214(b))
<u>Alternate Operating Scenario</u>	
1. If these units are operated as non-emergency stationary RICE, the permittee shall notify ADEM and comply with the applicable provisions of ADEM Admin. Code r. 335-3-10-.02(87), “Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (Subpart III)” and 335-3-11-.06(103), “National Emissions Standards for Hazardous Air Pollutant Emissions from Stationary Reciprocating Internal Combustion Engines (Subpart ZZZZ)” notwithstanding other provisions of this permit to the contrary.	Rule 335-3-10-.02(87) (incorporating 40 CFR Part 60 Subpart III) Rule 335-3-11-.06(103)

Provisos for Air Compressor Engines #1 & #2 and Security Camera Engines 1-8

Federally Enforceable Provisos	Regulations
<u>Applicability</u>	
1. These units are subject to the provisions of ADEM Admin. Code r. 335-3-16, "Major Source Operating Permits."	Rule 335-3-16
2. These units are subject to the provisions of ADEM Admin. Code r. 335-3-10-.02(87), "Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (Subpart III)" and 335-3-11-.06(103), "National Emissions Standards for Hazardous Air Pollutant Emissions from Stationary Reciprocating Internal Combustion Engines (Subpart ZZZZ)."	Rule 335-3-10-.02(87) Rule 335-3-11-.06(103)
<u>Emission Standards</u>	
1. These units are subject to the emission standards specified in 40 CFR 60.4201(a).	Rule 335-3-10-.02(87) (incorporating 40 CFR 60.4204(b))
2. Each unit must use diesel fuel that meets the requirements in 40 CFR 80.510(b) for nonroad diesel fuel.	Rule 335-3-10-.02(87) (incorporating 40 CFR 60.4207(b))
<u>Compliance and Performance Test Methods and Procedures</u>	
1. The permittee shall comply with Emission Standard Proviso 1 by purchasing engines certified by the manufacturer to the emission standards in 40 CFR 60.4201(a), as applicable, for the same model year and maximum engine power.	Rule 335-3-10-.02(87) (incorporating 40 CFR 60.4204(b))
2. The permittee must operate and maintain the CI internal combustion engines and control device (if any) according to the manufacturer's emission-related written instructions; change only those emission-related settings that are permitted by the manufacturer and meet the requirements of 40 CFR Parts 89, 94 and/or 1068, as they apply to you.	Rule 335-3-10-.02(87) (incorporating 40 CFR 60.4211(a))
<u>Emission Monitoring</u>	
1. There are no specific emission monitoring requirements for these units.	
<u>Recordkeeping and Reporting Requirements</u>	
1. The permittee shall comply with the recordkeeping and reporting requirements of the Mandatory Greenhouse Gas Reporting Rule in 40 CFR Part 98.	40 CFR Part 98

Compliance Assurance Monitoring (CAM)
Unit 4

PLANT BARRY
Unit 4
Compliance Assurance Monitoring Plan
Electrostatic Precipitators for Particulate Matter Control

A. Compliance Approach: Precipitator Power

A minimum electrostatic precipitator (ESP) power level, as determined by previous testing, is set for the unit at the power level which correlates to an emission rate that is less than the permitted State SIP particulate matter (PM) limit. If a condition occurs in which the parameters are not being met, corrective action will be taken to avoid a CAM excursion. An exceedance of the corrective action trigger level does not create a reporting requirement unless the three-hour block average precipitator power on the unit is less than the established minimum power level. Also, if a complete gas passage of Power Supplies (PS) is out of service (i.e. channeling) for a three-hour block period then a CAM excursion will occur. Any excursions that meet these criteria will be reported on the quarterly or semi-annual compliance report as a CAM excursion.

In the presumptively acceptable CAM protocol for precipitators, EPA allows extrapolation of the curve by up to 25% of the highest PM emissions level tested. While these protocols are not the same, the testing required is identical. In order to avoid exceeding State SIP PM emission limit during CAM testing, Alabama Power also used this approach.

B. Background

1. Emission Unit:

Description:	Unit 4 Coal-fired Power Boiler
Permit Number:	503-1001
Pollution Control Device:	ESP 4
Facility:	Plant Barry
	Box 70
	Bucks, AL 36512

2. Applicable Regulation, Emission Limit, and Monitoring Requirements:

Regulation:	Title V Permit, ADEM Admin. Code r. 335-3-4-.03
PM Emission Limit:	0.12 lbs/mmBtu
CAM ESP Power	
Minimum Limit:	30 kW or channeling (3-hour block average)
Monitoring Requirements:	Continuous precipitator power monitoring

3. Control Technology: Electrostatic precipitator (ESP)

C. Monitoring Approach

The key elements of the monitoring approach, including the CAM indicators to be monitored, indicator ranges, excursion criteria, and data handling and recording procedures are presented in Table 1. The CAM performance indicator is the Unit 4 ESP power level as measured by the ESP control software. The indicator parameters are recorded by the plant distributed control system (DCS). The CAM excursion level was established based on ESP performance test data collected at varying operating conditions.

The operating conditions tested were normal baseline and a "detuned" condition. The detuned condition was established by turning off or limiting PS sections in the ESP. The ESP was detuned to simulate conditions that might occur during ESP malfunctions. The ESP PM emissions at each condition were measured using EPA Method 17.

D. Justification

1. Background

The emission unit is a coal-fired electric generating unit with a nominal heat input capacity of 3571 mmBtu/hr. The current unit normal full load generating capacity is approximately 376 MW. Exhaust flue gases from Unit 4 pass through the ESP for PM control and through an outlet duct before being emitted through an individual 600 ft. stack.

The Unit 4 boiler was placed into service in 1969 and burns bituminous coal. Two of the ESP boxes are 27 feet long by 30 feet high with a total nominal gross specific collection area of 249 ft²/1000 ACFM and the other two ESP boxes are 36 feet long by 30 feet high with a total nominal gross specific collection area of 367 ft²/1000 ACFM.

2. Rationale for Selection of Performance Indicators

The selected CAM indicator is the Unit 4 precipitator power level. Precipitator power was selected as a performance indicator because generally as power levels decrease, it can be reasonably assumed that PM emissions will increase. Although the correlation between the precipitator power and specific unit PM emissions are not exact, testing at worst case conditions showed precipitator power does provide an indication of emissions approaching the applicable State SIP PM emission limit.

3. Rationale for Selection of Precipitator Power Level

The CAM precipitator power excursion level was established by measuring the PM emissions at different power levels in the ESP exhaust. The measured PM emissions were plotted against the observed unit precipitator power levels and the best fit curve was applied. The projected PM emission rate at 30 kw using the equation generated by the best-fit curve is 0.102 lbs/mmBtu. This is below the State SIP PM permit limit of

0.12 lbs/mmBtu, so the CAM precipitator power excursion level is set at 30 kW. The test results are summarized in Table 2 and Figure 1.

The stated intent of the CAM rule is to ensure that control devices are properly operated and maintained to assure compliance with the applicable established emission standards. Proper operation of the PM control device, the electrostatic precipitator, cannot be assessed during unit start-up and shutdown periods. During these times, low temperatures and varying fuels cause precipitators to be unstable. In addition, the CAM testing performed to develop the precipitator power excursion levels was done only under maximum stable loads, without start-up fuel. Therefore, if exceedances of the CAM excursion level occur during these times, corrective actions are not required

4. Corrective Actions

Corrective actions to be taken when the ESP CAM indicators are not being met may include the following:

- i. Verify all ESP power supplies are in service and working properly.
- ii. Verify ESP discharge and collecting rappers are working properly.
- iii. Verify ash removal equipment is running properly.

5. Rationale for Selection of CAM Averaging Periods

Compliance with the PM limit is demonstrated from a reference method test that requires a minimum of three hours to perform (e.g. the average of three 1-hour test runs). Therefore, a 3-hour block averaging period was chosen for determination of a CAM excursion.

Table 1 - Monitoring Approach

Indicator	ESP Power Level (kW)
Measurement Approach	ESP Power level from precipitator control computer.
Indicator Range	A CAM excursion occurs if Unit 4 has a 3-hour block average precipitator power less than 30 kW or if all of the PS in a gas passage are out of service for a 3-hour block period (i.e. channeling).
Data Representativeness	The precipitator power level is measured as an indicator of particulate matter collection and equipment performance.
QA/QC Practices and Criteria	The precipitator controls are calibrated per manufacturer's recommendations.
Monitoring Frequency	The precipitator power level is monitored continuously by the precipitator control software.
Data Collection Procedures	The DAS retains all 6-minute and hourly average precipitator power data.
Averaging Period	The 6-minute precipitator power data is used to calculate 3-hour block averages.

Barry 4
CAM Test Data Summary

	Baseline		Condition 1	
	ESP Power	Particulate	ESP Power	Particulate
Run 1	232	0.031	40	0.078
Run 2	230	0.021	41	0.087
Run 3	224	0.026	42	0.084
Average	229	0.026	41	0.083

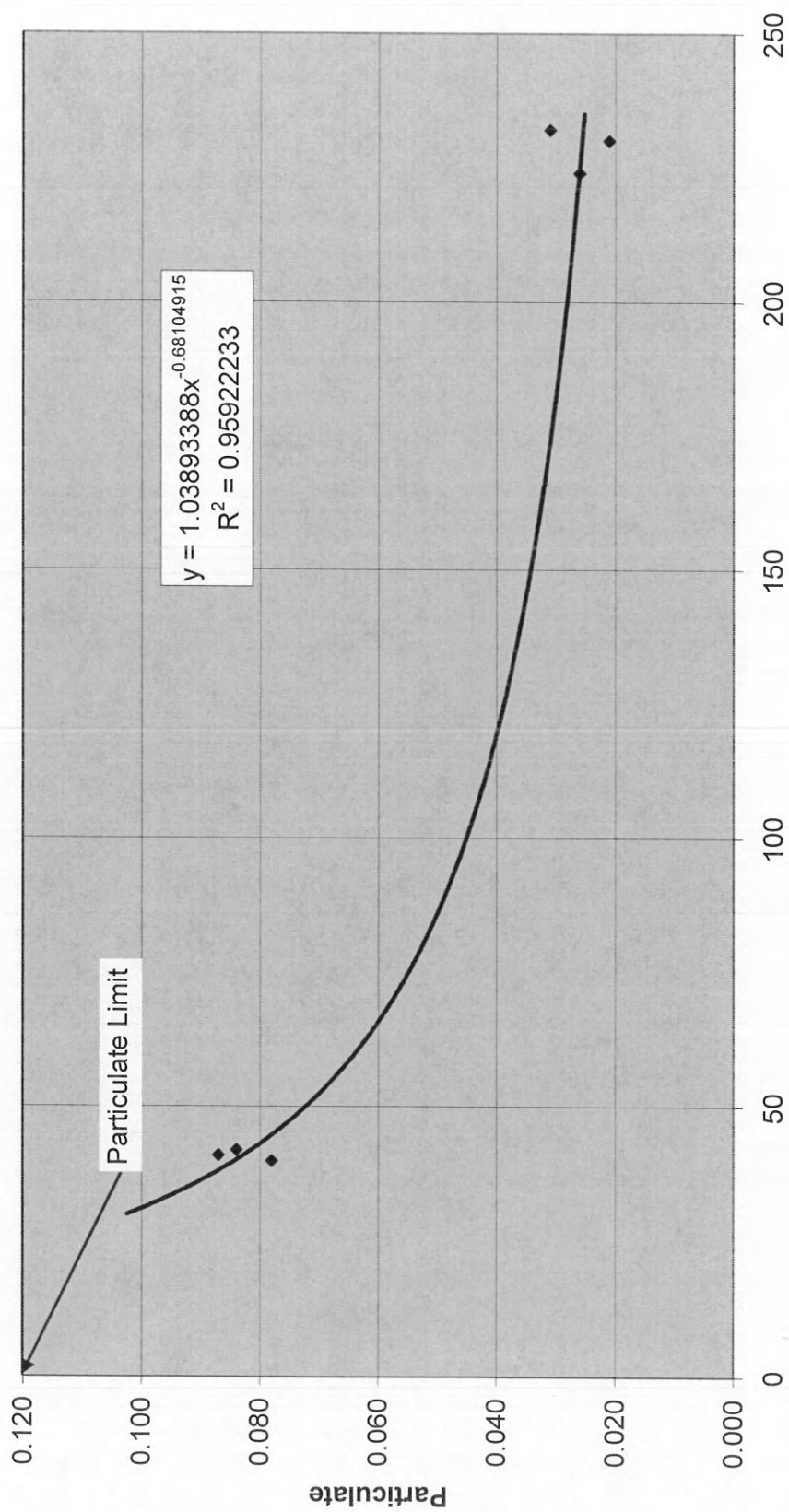
Table 2

- Best fit equation for precipitator power versus particulate is
 $y = 1.03893388x^{-0.68104915}$
y=particulate emissions, x=precipitator power
- $R^2 = 0.9592$, R^2 is the Coefficient of Determination. It is the percent of variance of one variable explained by the other. The value of 0.9592 shows that 95.92% of the variability in particulate matter is explained by precipitator power.
- Extrapolate measured particulate by 25%. $0.083 * 1.25 = 0.104$
- Projected particulate at 30 kw precipitator power $y = 1.03893388(30)^{-0.68104915} = 0.102$

Projected particulate is less than the State SIP PM permit limit of 0.12, so the CAM excursion level is set at 30 kW precipitator power.

Barry 4

Particulate vs Precipitator Power



Precipitator Power
Figure 1

Compliance Assurance Monitoring (CAM)

Unit 5

PLANT BARRY
Unit 5
Compliance Assurance Monitoring Plan
Electrostatic Precipitators for Particulate Matter Control

A. Compliance Approach: Precipitator Power

A minimum electrostatic precipitator (ESP) power level, as determined by previous testing, is set for the unit at the power level which correlates to an emission rate that is less than the permitted State SIP particulate matter (PM) emission limit. If a condition occurs in which the parameters are not being met, corrective action will be taken to avoid a CAM excursion. An exceedance of the corrective action trigger level does not create a reporting requirement unless the three-hour block average precipitator power on the unit is less than the established minimum power level. Also, if a complete gas passage of Power Supplies (PS) is out of service (i.e. channeling) for a three-hour block period then a CAM excursion will occur. Any excursions that meet these criteria will be reported on the quarterly or semi-annual compliance report as a CAM excursion.

In the presumptively acceptable CAM protocol for precipitators, EPA allows extrapolation of the curve by up to 25% of the highest particulate emissions level tested. While these protocols are not the same, the testing required is identical. In order to avoid exceeding the applicable PM emission limit during CAM testing, Alabama Power also used this approach.

B. Background

1. Emission Unit:

Description:	Unit 5 Coal-fired Power Boiler
Permit Number:	503-1001
Pollution Control Device:	ESP 5
Facility:	Plant Barry
	Box 70
	Bucks, AL 36512

2. Applicable Regulation, Emission Limit, and Monitoring Requirements:

Regulation:	Title V Permit, ADEM Admin. Code r. 335-3-4-.03
PM Emission Limit:	0.12 lbs/mmBtu
CAM ESP Power	
Minimum Limit:	30 kW or channeling (3-hour block average)
Monitoring Requirements:	Continuous precipitator power monitoring

3. Control Technology: Electrostatic precipitator (ESP)

C. Monitoring Approach

The key elements of the monitoring approach, including the CAM indicators to be monitored, indicator ranges, excursion criteria, and data handling and recording procedures are presented in Table 1. The CAM performance indicator is the Unit 5 ESP power level as measured by the ESP control software. The indicator parameters are recorded by the plant distributed control system (DCS). The CAM excursion level was established based on ESP performance test data collected at varying operating conditions.

The operating conditions tested were normal baseline and a “detuned” condition. The detuned condition was established by turning off or limiting Power Supply sections in the ESP. The ESP was detuned to simulate conditions that might occur during ESP malfunctions. The ESP PM emissions at each condition were measured using EPA Method 17.

D. Justification

1. Background

The emission unit is a coal-fired electric generating unit with a nominal heat input capacity 7,585 mmBtu/hr. The current unit normal full load generating capacity is approximately 785 MW. Exhaust flue gases from Unit 5 pass through the ESP for PM control before passing through a selective catalytic reduction (SCR) system for NO_x control, and a flue gas desulfurization system (e.g. FGD or scrubber) for the control of SO₂, mercury and additional PM control before being emitted from an individual 600-foot wet stack.

The Unit 5 boiler was placed into service in 1971 and burns bituminous coal. Two of the ESP boxes are 18 feet long by 30 feet high with a total nominal gross specific collection area of 101.0 ft²/1000 ACFM and the other two ESP boxes are 18 feet long by 30 feet high with a total nominal gross specific collection area of 101.0 ft²/1000 ACFM.

2. Rationale for Selection of Performance Indicators

The selected CAM indicator is the Unit 5 ESP power level. Precipitator power was selected as a performance indicator because generally as power levels decrease, it can be reasonably assumed that PM emissions will increase. Although the correlation between the precipitator power and specific unit PM emissions are not exact, testing at worst case conditions showed precipitator power does provide an indication of PM emissions approaching the applicable State SIP PM emission limit upstream of the FGD.

3. Rationale for Selection of Precipitator Power Level

The CAM precipitator power excursion level was established by

measuring the PM emissions at different power levels in the ESP exhaust. The measured PM emissions were plotted against the observed unit precipitator power levels and the best fit curve was applied. The projected PM emission rate upstream of the FGD, at 30 kW using the equation generated by the best-fit curve is 0.050 lbs/mmBtu. This is below the State SIP PM permit limit of 0.12 lbs/mmBtu, so the CAM precipitator power excursion level is set at 30 kW. The test results are summarized in Table 2 and Figure 1.

The stated intent of the CAM rule is to ensure that control devices are properly operated and maintained to assure compliance with the applicable established emission standards. Proper operation of the PM control device, the electrostatic precipitator, cannot be assessed during unit start-up and shutdown periods. During these times, low temperatures and varying fuels cause precipitators to be unstable. In addition, the CAM testing performed to develop the precipitator power excursion levels was done only under maximum stable loads, without start-up fuel. Therefore, if exceedances of the CAM excursion level occur during these times, corrective actions are not required

4. Corrective Actions

Corrective actions to be taken when the ESP CAM indicators are not being met may include the following:

- i. Verify all ESP power supplies are in service and working properly.
- ii. Verify ESP discharge and collecting rappers are working properly.
- iii. Verify ash removal equipment is running properly.

5. Rationale for Selection of CAM Averaging Periods

Compliance with the State SIP PM limit is demonstrated from a reference method test that requires a minimum of three hours to perform (e.g. the average of three 1-hour test runs). Therefore, a 3-hour block averaging period was chosen for determination of a CAM excursion.

Table 1 - Monitoring Approach

Indicator	ESP Power Level (kW)
Measurement Approach	ESP Power level from precipitator control computer.
Indicator Range	A CAM excursion occurs if Unit 5 has a 3-hour block average precipitator power less than 30 kW or if all of the PS in a gas passage are out of service for a 3-hour block period (i.e. channeling).
Data Representativeness	The precipitator power is measured as an indicator of particulate matter collection and equipment performance.
QA/QC Practices and Criteria	The precipitator controls are calibrated per manufacturer's recommendations.
Monitoring Frequency	The precipitator power is monitored continuously by the precipitator control software.
Data Collection Procedures	The DAS retains all 6-minute and hourly average precipitator power data.
Averaging Period	The 6-minute precipitator power data is used to calculate 3-hour block averages.

Barry 5
CAM Test Data Summary

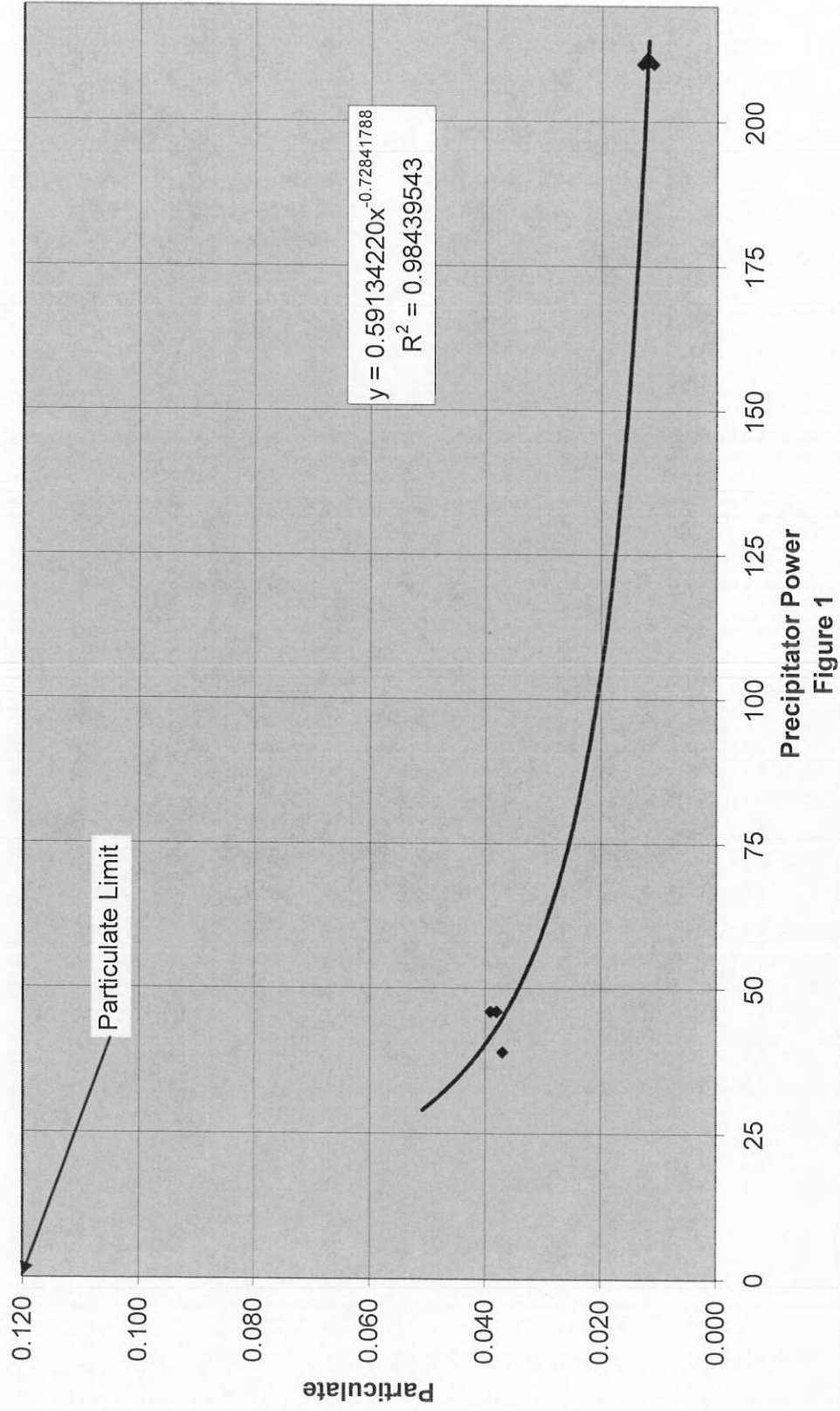
	Baseline		Condition 1	
	ESP Power	Particulate	ESP Power	Particulate
Run 1	210	0.013	39	0.037
Run 2	211	0.012	46	0.038
Run 3	210	0.011	46	0.039
Average	210	0.012	44	0.038

Table 2

- Best fit equation for precipitator power versus particulate is
 $y = 0.59134220x^{-0.72841788}$
y=particulate emissions, x=precipitator power
- $R^2 = 0.9844$, R^2 is the Coefficient of Determination. It is the percent of variance of one variable explained by the other. The value of 0.9844 shows that 98.44% of the variability in particulate matter is explained by precipitator power.
- Extrapolate measured particulate by 25%. $0.038 * 1.25 = 0.048$
- Projected particulate at 30 kW precipitator power $y = 0.59134220(30)^{-0.72841788} = 0.050$
- Projected particulate is less than the applicable PM permit limit of 0.12, so the CAM excursion level is set at 30 kW precipitator power.

Barry 5

Particulate vs Precipitator Power



Compliance Assurance Monitoring (CAM)

Units 6A, 6B, 7A, & 7B

Plant Barry
Compliance Assurance Monitoring
Units 6A, 6B, 7A & 7B
SCR for NOx Emission Control

Submittal Reference	Monitoring Design Criteria Reference	Monitoring Design Requirement	Monitoring Approach
64.4 (a)(1)	64.3 (a)(1)	Indicator of Emission Control Performance	NOx emission rate in lbs/mmBtu is the indicator of SCR performance.
64.4 (a)(2)	64.3 (a)(2)	Designated Indicator Condition that provides reasonable assurance of ongoing compliance	A NOx emission rate of 0.013 lb/mmBtu monitored using a rolling 3-hour average computed by CEMS is the designated indicator condition that provides reasonable assurance of ongoing compliance.
64.4 (a)(3)	64.3 (b)	Performance Criteria: (1) Obtain Representative Data (2) Verify Operational Status (3) Establish QA/QC Practices (4) Set Frequency of Data Collection and the Exceedance Averaging Period	(1) The exhaust gas is continuously sampled by a probe located in the stack of each unit in accordance with 40 CFR 60, Appendix A. The NOx concentration of the exhaust gas sample is measured by the NOx CEMS analyzer in ppmv. The NOx concentration is converted to lb/mmBtu and recorded by the CEMS DAHS. (2) The initial testing and certification procedures in 40 CFR 75, Appendix A and the performance protocol (PS2) in 40 CFR 60, Appendix B were used to verify the CEMS operational status. (3) The QA/QC practices that ensure continuing validity of the data are included in the plant's Quality Assurance Plan (QAP) in accordance with 40 CFR 75. (4) Data is collected continuously, and a rolling 3-hour average is computed by the CEMS DAHS to determine whether an exceedance has occurred.
64.4 (a)(4)	64.3 (d)	Special Criteria for the use of CEMS	Air Permit No. 503-1001-X006 required monitoring of the NOx emission rate on a 3-hour rolling average by CEMS and reporting of exceedances.
64.4 (b)	64.3 (d)	Justification of Monitoring Approach/ Explanation of Monitoring Applicability	By stating that the NOx emission rate shall not exceed 0.013 lb/mmBtu and by requiring monitoring using a 3-hour rolling average as computed by CEMS, Air Permit No. 503-1001-X006, justifies designating the NOx emission rate of 0.013 lb/mmBtu monitored using a rolling 3-hour average computed by the CEMS as the monitoring approach that provides reasonable assurance of ongoing compliance.
64.4 (c)		Control Device Performance Testing	Performance testing was conducted in accordance with 40 CFR 60. No changes that could result in a significant change in unit or SCR performance have been made since conducting the performance testing.

Acid Rain Permit

Phase II Acid Rain Permit

Issued by: Alabama Department of Environmental Management
Issued to: Alabama Power Company – Barry
Operated by: Alabama Power Company
ORIS code: 0003
Effective: Date TBD, 2020 through Date TBD, 2024

Acid Rain Permit Contents

- 1) Statement of Basis.
- 2) SO₂ allowances allocated under this permit and NO_x requirements for each affected unit.
- 3) Comments, notes and justifications regarding permit decisions and changes made to the permit application forms during the review process, and any additional requirements or conditions.
- 4) The Phase II Permit Application, NO_x Compliance Plan and NO_x Averaging Plan submitted for this source, as corrected by the Alabama Department of Environmental Management. The owners and operators of the source must comply with the standard requirements and special provisions set forth in the Phase II Permit Application, NO_x Compliance Plan and NO_x Averaging Plan.
- 5) Summary of Previous Actions and Current Action.

1) Statement of Basis:

Statutory and Regulatory Authorities: In accordance with the Code of Alabama 1975, §§ 22-22A-4, 22-22A-6, 22-22A-8, 22-28-14 and Titles IV and V of the Clean Air Act, the Alabama Department of Environmental Management issues this permit pursuant to ADEM Admin. Codes 335-3-16 and 335-3-18.

2) SO₂ Allowance Allocations and NO_x Requirements for each affected unit:

		2020	2021	2022	2023	2024
Unit 1	SO ₂ allowances, under Tables 2, 3, or 4 of 40 CFR part 73. [tons]	3890 ¹	3890 ¹	3890 ¹	3890 ¹	3890 ¹
	NO _x limit [lb/MMBtu]	□2	□2	□2	□2	□2

		2020	2021	2022	2023	2024
Unit 2	SO ₂ allowances, under Tables 2, 3, or 4 of 40 CFR part 73. [tons]	4299 ¹	4299 ¹	4299 ¹	4299 ¹	4299 ¹
	NO _x limit [lb/MMBtu]	□2	□2	□2	□2	□2

		2020	2021	2022	2023	2024
Unit 4	SO ₂ allowances, under Tables 2, 3, or 4 of 40 CFR part 73. [tons]	10069 ¹	10069 ¹	10069 ¹	10069 ¹	10069 ¹
	NO _x limit [lb/MMBtu]	□2	□2	□2	□2	□2

		2020	2021	2022	2023	2024
Unit 5	SO ₂ allowances, under Tables 2, 3, or 4 of 40 CFR part 73. [tons]	24878 ¹	24878 ¹	24878 ¹	24878 ¹	24878 ¹
	NO _x limit [lb/MMBtu]	□2	□2	□2	□2	□2

		2020	2021	2022	2023	2024
6A	SO ₂ allowances, under Tables 2, 3, or 4 of 40 CFR part 73. [tons]	NA ¹	NA ¹	NA ¹	NA ¹	NA ¹
	NO _x limit [lb/MMBtu]	□2	□2	□2	□2	□2

		2020	2021	2022	2023	2024
6B	SO ₂ allowances, under Tables 2, 3, or 4 of 40 CFR part 73. [tons]	NA ¹	NA ¹	NA ¹	NA ¹	NA ¹
	NO _x limit [lb/MMBtu]	□2	□2	□2	□2	□2

		2020	2021	2022	2023	2024
7A	SO ₂ allowances, under Tables 2, 3, or 4 of 40 CFR part 73. [tons]	NA ¹	NA ¹	NA ¹	NA ¹	NA ¹
	NO _x limit [lb/MMBtu]	□2	□2	□2	□2	□2

		2020	2021	2022	2023	2024
7B	SO ₂ allowances, under Tables 2, 3, or 4 of 40 CFR part 73. [tons]	NA ¹	NA ¹	NA ¹	NA ¹	NA ¹
	NO _x limit [lb/MMBtu]	□2	□2	□2	□2	□2

¹ The number of allowances allocated to Phase II affected units by U.S. EPA may change under 40 CFR Part 73. In addition, 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 SO₂ allowance allocations identified in this permit [See 40 CFR 72.84].

² Pursuant to 40 CFR 76.11, the Alabama Department of Environmental Management approves five (5) NO_x emissions averaging plans for Units 1, 2, 4 and 5. Each plan is effective for one calendar year for the years 2020, 2021, 2022, 2023 and 2024. Under each plan, Unit 1's NO_x emissions shall not exceed the annual average alternative contemporaneous emission limitation of 0.60 lb/MMBtu, Unit 2's NO_x emissions shall not exceed the annual average alternative contemporaneous emission limitation of 0.60 lb/MMBtu, Unit 4's NO_x emissions shall not exceed the annual average alternative contemporaneous emission limitation of 0.60 lb/MMBtu, and Unit 5's NO_x emissions shall not exceed the annual average alternative contemporaneous emission limitation of 0.38 lb/MMBtu. In addition, Unit 1 shall not have an annual heat input greater than 1,000,000 MMBtu, Unit 2 shall not have an annual heat input greater than 1,000,000 MMBtu, Unit 4 shall not have an annual heat input greater than 15,000,000 MMBtu, and Unit 5 shall not have an annual heat input less than 25,000,000 MMBtu.

Under the plans, the actual Btu-weighted annual average NO_x emission rate for the units in the plans shall be less than or equal to the Btu-weighted annual average NO_x emission rate for the same units had they each been operated, during the same period of time, in compliance with the applicable emission limitations under 40 CFR 76.5, 76.6, or 76.7, except that for any early election units, the applicable emission limitations shall be under 40 CFR 76.7. If the designated representative demonstrates that the requirement of the prior sentence (as set forth in 40 CFR 76.11(d)(1)(ii)(A)) is met for a year under the plans, then each unit shall be deemed to be in compliance for that year with its alternative contemporaneous annual emission limitation and annual heat input limit.

In accordance with 40 CFR 72.40(b)(2), approval of the averaging plans shall be final only when the Jefferson County (AL) Department of Health has also approved the averaging plans.

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 a NO_x compliance plan and requirements covering excess emissions.

40 CFR Part 76 does not establish NO_x emission rates for Combined Cycle units 6 and 7.

3) Comments, Notes and Justifications: None.

4) Phase II Permit Application, Phase II NO_x Averaging Plan, Phase II NO_x Compliance Plan: Attached.

5) Summary of Previous Actions and Current Action:

ACTION	DATE
1. Draft permit prepared and submitted for public review and comment.	October 1, 1997
2. Permit finalized and issued.	December 17, 1997
3. Permit revised to include three combined cycle combustion turbine units and to add NO _x emissions	November 28, 1998

compliance plans for Units 1 through 5 and issued for public comment.

- | | |
|---|-------------------|
| 4. Draft permit prepared and submitted for public review and comment. | December 1, 2004 |
| 5. Permit finalized and re-issued. | January 1, 2005 |
| 6. Draft permit renewal prepared and submitted for public review and comment. | November 3, 2010 |
| 7. Permit renewal finalized and issued. | December 20, 2010 |
| 8. Draft permit renewal prepared and submitted for public review and comment. | TBD |
| 9. Permit renewal finalized and issued. | TBD |

Ronald W. Gore, Chief
Air Division

Date



Acid Rain Permit Application

For more information, see instructions and 40 CFR 72.30 and 72.31.

This submission is: ☐ new ☐ revised ☒ for Acid Rain permit renewal

STEP 1

Identify the facility name, State, and plant (ORIS) code.

Barry	AL	0003
Facility (Source) Name	State	Plant Code

STEP 2

Enter the unit ID# for every affected unit at the affected source in column "a."

a	b
Unit ID#	Unit Will Hold Allowances in Accordance with 40 CFR 72.9(c)(1)
1	Yes
2	Yes
3	Yes
4	Yes
5	Yes
6A	Yes
6B	Yes
7A	Yes
7B	Yes
	Yes
	Yes
	Yes
	Yes
	Yes
	Yes
	Yes
	Yes
	Yes
	Yes

Facility (Source) Name (from STEP 1) Barry
--

Permit Requirements

STEP 3

Read the standard requirements.

- (1) The designated representative of each affected source and each affected unit at the source shall:
 - (i) Submit a complete Acid Rain permit application (including a compliance plan) under 40 CFR part 72 in accordance with the deadlines specified in 40 CFR 72.30; and
 - (ii) Submit in a timely manner any supplemental information that the permitting authority determines is necessary in order to review an Acid Rain permit application and issue or deny an Acid Rain permit;
- (2) The owners and operators of each affected source and each affected unit at the source shall:
 - (i) Operate the unit in compliance with a complete Acid Rain permit application or a superseding Acid Rain permit issued by the permitting authority; and
 - (ii) Have an Acid Rain Permit.

Monitoring Requirements

- (1) The owners and operators and, to the extent applicable, designated representative of each affected source and each affected unit at the source shall comply with the monitoring requirements as provided in 40 CFR part 75.
- (2) The emissions measurements recorded and reported in accordance with 40 CFR part 75 shall be used to determine compliance by the source or unit, as appropriate, with the Acid Rain emissions limitations and emissions reduction requirements for sulfur dioxide and nitrogen oxides under the Acid Rain Program.
- (3) The requirements of 40 CFR part 75 shall not affect the responsibility of the owners and operators to monitor emissions of other pollutants or other emissions characteristics at the unit under other applicable requirements of the Act and other provisions of the operating permit for the source.

Sulfur Dioxide Requirements

- (1) The owners and operators of each source and each affected unit at the source shall:
 - (i) Hold allowances, as of the allowance transfer deadline, in the source's compliance account (after deductions under 40 CFR 73.34(c)), not less than the total annual emissions of sulfur dioxide for the previous calendar year from the affected units at the source; and
 - (ii) Comply with the applicable Acid Rain emissions limitations for sulfur dioxide.
- (2) Each ton of sulfur dioxide emitted in excess of the Acid Rain emissions limitations for sulfur dioxide shall constitute a separate violation of the Act.
- (3) An affected unit shall be subject to the requirements under paragraph (1) of the sulfur dioxide requirements as follows:
 - (i) Starting January 1, 2000, an affected unit under 40 CFR 72.6(a)(2); or
 - (ii) Starting on the later of January 1, 2000 or the deadline for monitor certification under 40 CFR part 75, an affected unit under 40 CFR 72.6(a)(3).

Facility (Source) Name (from STEP 1) Barry

Sulfur Dioxide Requirements, Cont'd.

STEP 3, Cont'd.

(4) Allowances shall be held in, deducted from, or transferred among Allowance Tracking System accounts in accordance with the Acid Rain Program.

(5) An allowance shall not be deducted in order to comply with the requirements under paragraph (1) of the sulfur dioxide requirements prior to the calendar year for which the allowance was allocated.

(6) An allowance allocated by the Administrator under the Acid Rain Program is a limited authorization to emit sulfur dioxide in accordance with the Acid Rain Program. No provision of the Acid Rain Program, the Acid Rain permit application, the Acid Rain permit, or an exemption under 40 CFR 72.7 or 72.8 and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization.

(7) An allowance allocated by the Administrator under the Acid Rain Program does not constitute a property right.

Nitrogen Oxides Requirements

The owners and operators of the source and each affected unit at the source shall comply with the applicable Acid Rain emissions limitation for nitrogen oxides.

Excess Emissions Requirements

(1) The designated representative of an affected source that has excess emissions in any calendar year shall submit a proposed offset plan, as required under 40 CFR part 77.

(2) The owners and operators of an affected source that has excess emissions in any calendar year shall:

(i) Pay without demand the penalty required, and pay upon demand the interest on that penalty, as required by 40 CFR part 77; and

(ii) Comply with the terms of an approved offset plan, as required by 40 CFR part 77.

Recordkeeping and Reporting Requirements

(1) Unless otherwise provided, the owners and operators of the source and each affected unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time prior to the end of 5 years, in writing by the Administrator or permitting authority:

(i) The certificate of representation for the designated representative for the source and each affected unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation, in accordance with 40 CFR 72.24; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the

Facility (Source) Name (from STEP 1) Barry

submission of a new certificate of representation changing the designated representative;

STEP 3, Cont'd.

Recordkeeping and Reporting Requirements, Cont'd.

- (ii) All emissions monitoring information, in accordance with 40 CFR part 75, provided that to the extent that 40 CFR part 75 provides for a 3-year period for recordkeeping, the 3-year period shall apply.
 - (iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the Acid Rain Program; and,
 - (iv) Copies of all documents used to complete an Acid Rain permit application and any other submission under the Acid Rain Program or to demonstrate compliance with the requirements of the Acid Rain Program.
- (2) The designated representative of an affected source and each affected unit at the source shall submit the reports and compliance certifications required under the Acid Rain Program, including those under 40 CFR part 72 subpart I and 40 CFR part 75.

Liability

- (1) Any person who knowingly violates any requirement or prohibition of the Acid Rain Program, a complete Acid Rain permit application, an Acid Rain permit, or an exemption under 40 CFR 72.7 or 72.8, including any requirement for the payment of any penalty owed to the United States, shall be subject to enforcement pursuant to section 113(c) of the Act.
- (2) Any person who knowingly makes a false, material statement in any record, submission, or report under the Acid Rain Program shall be subject to criminal enforcement pursuant to section 113(c) of the Act and 18 U.S.C. 1001.
- (3) No permit revision shall excuse any violation of the requirements of the Acid Rain Program that occurs prior to the date that the revision takes effect.
- (4) Each affected source and each affected unit shall meet the requirements of the Acid Rain Program.
- (5) Any provision of the Acid Rain Program that applies to an affected source (including a provision applicable to the designated representative of an affected source) shall also apply to the owners and operators of such source and of the affected units at the source.
- (6) Any provision of the Acid Rain Program that applies to an affected unit (including a provision applicable to the designated representative of an affected unit) shall also apply to the owners and operators of such unit.
- (7) Each violation of a provision of 40 CFR parts 72, 73, 74, 75, 76, 77, and 78 by an affected source or affected unit, or by an owner or operator or designated representative of such source or unit, shall be a separate violation of the Act.

Effect on Other Authorities

No provision of the Acid Rain Program, an Acid Rain permit application, an Acid Rain permit, or an exemption under 40 CFR 72.7 or 72.8 shall be construed as:

Facility (Source) Name (from STEP 1) Barry
--

STEP 3, Cont'd.

(1) Except as expressly provided in title IV of the Act, exempting or excluding the owners and operators and, to the extent applicable, the designated representative of an affected source or affected unit from compliance with any other provision of the Act, including the provisions of title I of the Act relating

Effect on Other Authorities, Cont'd.

to applicable National Ambient Air Quality Standards or State Implementation Plans;

(2) Limiting the number of allowances a source can hold; *provided*, that the number of allowances held by the source shall not affect the source's obligation to comply with any other provisions of the Act;

(3) Requiring a change of any kind in any State law regulating electric utility rates and charges, affecting any State law regarding such State regulation, or limiting such State regulation, including any prudence review requirements

under such State law;

(4) Modifying the Federal Power Act or affecting the authority of the Federal Energy Regulatory Commission under the Federal Power Act; or,

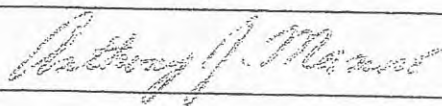
(5) Interfering with or impairing any program for competitive bidding for power supply in a State in which such program is established.

STEP 4

Read the certification statement, sign, and date.

Certification

I am authorized to make this submission on behalf of the owners and operators of the affected source or affected units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.

Name	Anthony J. Marino	
Signature		Date 6/13/2013



Retired Unit Exemption

For more information, see instructions and refer to 40 CFR 72.8, 96.105, 96.205, 96.305, 97.405, 97.505, 97.605, and 97.705, or a comparable state regulation, as applicable.

This submission is: ☒ New ☐ Revised

STEP 1

Identify the unit by plant (source) name, State, ORIS/plant code and unit ID#.

Barry Steam Electric Generating Plant	AL	3	3
Plant (Source) Name	State	ORIS/Plant Code	Unit ID#

STEP 2

Indicate the program(s) that the unit is subject to

- | | |
|--|---|
| <input checked="" type="checkbox"/> Acid Rain | <input checked="" type="checkbox"/> Transport Rule NO _x Annual |
| <input type="checkbox"/> CAIR NO _x Annual | <input checked="" type="checkbox"/> Transport Rule NO _x Ozone Season |
| <input type="checkbox"/> CAIR SO ₂ | <input checked="" type="checkbox"/> Transport Rule SO ₂ Annual |
| <input type="checkbox"/> CAIR NO _x Ozone Season | |

STEP 3

Identify the date on which the unit was (or will be) permanently retired.

August 24, 2015

STEP 4

If the unit is subject to the Acid Rain Program, identify the first full calendar year in which the unit meets (or will meet) the requirements of 40 CFR 72.8(d).

January 1, 2016

STEP 5

Read the appropriate special provisions.

Acid Rain Program Special Provisions

- (1) A unit exempt under 40 CFR 72.8 shall not emit any sulfur dioxide and nitrogen oxides starting on the date that the exemption takes effect. The owners and operators of the unit will be allocated allowances in accordance with 40 CFR part 73 subpart B.
- (2) A unit exempt under 40 CFR 72.8 shall not resume operation unless the designated representative of the source that includes the unit submits a complete Acid Rain permit application under 40 CFR 72.31 for the unit not less than 24 months prior to the date on which the unit is first to resume operation.
- (3) The owners and operators and, to the extent applicable, the designated representative of a unit exempt under 40 CFR 72.8 shall comply with the requirements of the Acid Rain Program concerning all periods for which the exemption is not in effect, even if such requirements arise, or must be complied with, after the exemption takes effect.
- (4) For any period for which a unit is exempt under 40 CFR 72.8, the unit is not an affected unit under the Acid Rain Program and 40 CFR part 70 and 71 and is not eligible to be an opt-in source under 40 CFR part 74. As an unaffected unit, the unit shall continue to be subject to any other applicable requirements under 40 CFR parts 70 and 71.
- (5) For a period of 5 years from the date the records are created, the owners and operators of a unit exempt under 40 CFR 72.8 shall retain, at the source that includes the unit, records demonstrating that the unit is permanently retired. The 5-year period for keeping records may be extended for cause, at any time prior to the end of the period, in writing by the Administrator or the permitting authority. The owners and operators bear the burden of proof that the unit is permanently retired.
- (6) On the earlier of the following dates, a unit exempt under 40 CFR 72.8(b) or (c) shall lose its exemption and become an affected unit under the Acid Rain Program and 40 CFR part 70 and 71: (i) the date on which the designated representative submits an Acid Rain permit application under paragraph (2); or (ii) the date on which the designated representative is required under paragraph (2) to submit an Acid Rain permit application. For the purpose of applying monitoring requirements under 40 CFR part 75, a unit that loses its exemption under 40 CFR 72.8 shall be treated as a new unit that commenced commercial operation on the first date on which the unit resumes operation.

CAIR NO_x Annual Trading Program Special Provisions

- (1) A unit exempt under 40 CFR 96.105(a) shall not emit any nitrogen oxides, starting on the date that the exemption takes effect.
- (2) The permitting authority will allocate CAIR NO_x allowances under 40 CFR 96 subpart EE to a unit exempt under 40 CFR 96.105(a).
- (3) For a period of 5 years from the date the records are created, the owners and operators of a unit exempt under 40 CFR 96.105(a) shall retain, at the source that includes the unit, records demonstrating that the unit is permanently retired. The 5-year period for keeping records may be extended for cause, at any time before the end of the period, in writing by the permitting authority or the Administrator. The owners and operators bear the burden of proof that the unit is permanently retired.
- (4) The owners and operators and, to the extent applicable, the CAIR designated representative of a unit exempt under 40 CFR 96.105(a) shall comply with the requirements of the CAIR NO_x Annual Trading Program concerning all periods for which the exemption is not in effect, even if such requirements arise, or must be complied with, after the exemption takes effect.
- (5) A unit exempt under 40 CFR 96.105(a) and located at a source that is required, or but for this exemption would be required, to have a title V operating permit shall not resume operation unless the CAIR designated representative of the source submits a complete CAIR permit application under 40 CFR 96.122 for the unit not less than 18 months (or such lesser time provided by the permitting authority) before the later of January 1, 2009 or the date on which the unit resumes operation.
- (6) On the earlier of the following dates, a unit exempt under 40 CFR 96.105(a) shall lose its exemption:
 - (i) The date on which the CAIR designated representative submits a CAIR permit application for the unit under 40 CFR 96.105(b)(5);
 - (ii) The date on which the CAIR designated representative is required under 40 CFR 96.105(b)(5) to submit a CAIR permit application for the unit; or
 - (iii) The date on which the unit resumes operation, if the CAIR designated representative is not required to submit a CAIR permit application for the unit.
- (7) For the purpose of applying monitoring, reporting, and recordkeeping requirements under 40 CFR 96 subpart HH, a unit that loses its exemption under 40 CFR 96.105(a) shall be treated as a unit that commences commercial operation on the first date on which the unit resumes operation.

CAIR SO₂ Trading Program Special Provisions

- (1) A unit exempt under 40 CFR 96.205(a) shall not emit any sulfur dioxide, starting on the date that the exemption takes effect.
- (2) For a period of 5 years from the date the records are created, the owners and operators of a unit exempt under 40 CFR 96.205(a) shall retain, at the source that includes the unit, records demonstrating that the unit is permanently retired. The 5-year period for keeping records may be extended for cause, at any time before the end of the period, in writing by the permitting authority or the Administrator. The owners and operators bear the burden of proof that the unit is permanently retired.
- (3) The owners and operators and, to the extent applicable, the CAIR designated representative of a unit exempt under 40 CFR 96.205(a) shall comply with the requirements of the CAIR SO₂ Trading Program concerning all periods for which the exemption is not in effect, even if such requirements arise, or must be complied with, after the exemption takes effect.
- (4) A unit exempt under 40 CFR 96.205(a) and located at a source that is required, or but for this exemption would be required, to have a title V operating permit shall not resume operation unless the CAIR designated representative of the source submits a complete CAIR permit application under 40 CFR 96.222 for the unit not less than 18 months (or such lesser time provided by the permitting authority) before the later of January 1, 2010 or the date on which the unit resumes operation.
- (5) On the earlier of the following dates, a unit exempt under 40 CFR 96.205(a) shall lose its exemption:
 - (i) The date on which the CAIR designated representative submits a CAIR permit application for the unit under 40 CFR 96.205(b)(4);
 - (ii) The date on which the CAIR designated representative is required under 40 CFR 96.205(b)(4) to submit a CAIR permit application for the unit; or
 - (iii) The date on which the unit resumes operation, if the CAIR designated representative is not required to submit a CAIR permit application for the unit.
- (6) For the purpose of applying monitoring, reporting, and recordkeeping requirements under 40 CFR 96 subpart HHH, a unit that loses its exemption under 40 CFR 96.205(a) shall be treated as a unit that commences commercial operation on the first date on which the unit resumes operation.

CAIR NO_x Ozone Season Trading Program Special Provisions

- (1) A unit exempt under 40 CFR 96.305(a) shall not emit any nitrogen oxides, starting on the date that the exemption takes effect.
- (2) The Administrator or the permitting authority will allocate CAIR NO_x Ozone Season allowances under 40 CFR 96 subpart EEEE to a unit exempt under 40 CFR 96.305(a).
- (3) For a period of 5 years from the date the records are created, the owners and operators of a unit exempt under 40 CFR 96.305(a) shall retain at the source that includes the unit, records demonstrating that the unit is permanently retired. The 5-year period for keeping records may be extended for cause, at any time before the end of the period, in writing by the permitting authority or the Administrator. The owners and operators bear the burden of proof that the unit is permanently retired.
- (4) The owners and operators and, to the extent applicable, the CAIR designated representative of a unit exempt under 40 CFR 96.305(a) shall comply with the requirements of the CAIR NO_x Ozone Season Trading Program concerning all periods for which the exemption is not in effect, even if such requirements arise, or must be complied with, after the exemption takes effect.
- (5) A unit exempt under 40 CFR 96.305(a) and located at a source that is required, or but for this exemption would be required, to have a title V operating permit shall not resume operation unless the CAIR designated representative of the source submits a complete CAIR permit application under § 97.322 for the unit not less than 18 months (or such lesser time provided by the permitting authority) before the later of January 1, 2009 or the date on which the unit resumes operation.
- (6) On the earlier of the following dates, a unit exempt under paragraph (a) of this section shall lose its exemption: (i) The date on which the CAIR designated representative submits a CAIR permit application for the unit under paragraph (b)(5) of this section; (ii) The date on which the CAIR designated representative is required under paragraph (b)(5) of this section to submit a CAIR permit application for the unit; or (iii) The date on which the unit resumes operation, if the CAIR designated representative is not required to submit a CAIR permit application for the unit.
- (7) For the purpose of applying monitoring, reporting, and recordkeeping requirements under subpart HHHH of this part, a unit that loses its exemption under paragraph (a) of this section shall be treated as a unit that commences commercial operation on the first date on which the unit resumes operation.

Transport Rule NO_x Annual Trading Program Special Provisions

- (1) A unit exempt under 40 CFR 97.405 shall not emit any NO_x, starting on the date that the exemption takes effect.
- (2) For a period of 5 years from the date the records are created, the owners and operators of a unit exempt under 40 CFR 97.405 shall retain, at the source that includes the unit, records demonstrating that the unit is permanently retired. The 5-year period for keeping records may be extended for cause, at any time before the end of the period, in writing by the Administrator. The owners and operators bear the burden of proof that the unit is permanently retired.
- (3) The owners and operators and, to the extent applicable, the designated representative of a unit exempt 40 CFR 97.405 shall comply with the requirements of the TR NO_x Annual Trading Program concerning all periods for which the exemption is not in effect, even if such requirements arise, or must be complied with, after the exemption takes effect.
- (4) A unit exempt under 40 CFR 97.405 shall lose its exemption on the first date on which the unit resumes operation. Such unit shall be treated, for purposes of applying allocation, monitoring, reporting, and recordkeeping requirements under this subpart, as a unit that commences commercial operation on the first date on which the unit resumes operation.

Transport Rule NO_x Ozone Season Trading Program Special Provisions

- (1) A unit exempt under 40 CFR 97.505 shall not emit any NO_x, starting on the date that the exemption takes effect.
- (2) For a period of 5 years from the date the records are created, the owners and operators of a unit exempt under 40 CFR 97.505 shall retain, at the source that includes the unit, records demonstrating that the unit is permanently retired. The 5-year period for keeping records may be extended for cause, at any time before the end of the period, in writing by the Administrator. The owners and operators bear the burden of proof that the unit is permanently retired.
- (3) The owners and operators and, to the extent applicable, the designated representative of a unit exempt under 40 CFR 97.505 shall comply with the requirements of the TR NO_x Ozone Season Trading Program concerning all periods for which the exemption is not in effect, even if such requirements arise, or must be complied with, after the exemption takes effect.
- (4) A unit exempt under 40 CFR 97.505 shall lose its exemption on the first date on which the unit resumes operation. Such unit shall be treated, for purposes of applying allocation, monitoring, reporting, and

recordkeeping requirements under this subpart, as a unit that commences commercial operation on the first date on which the unit resumes operation.

Transport Rule SO₂ Group 1 Trading Program Special Provisions

- (1) A unit exempt under 40 CFR 97.605 shall not emit any SO₂, starting on the date that the exemption takes effect.
- (2) For a period of 5 years from the date the records are created, the owners and operators of a unit exempt under 40 CFR 97.605 shall retain, at the source that includes the unit, records demonstrating that the unit is permanently retired. The 5-year period for keeping records may be extended for cause, at any time before the end of the period, in writing by the Administrator. The owners and operators bear the burden of proof that the unit is permanently retired.
- (3) The owners and operators and, to the extent applicable, the designated representative of a unit exempt under 40 CFR 97.605 shall comply with the requirements of the TR SO₂ Group 1 Trading Program concerning all periods for which the exemption is not in effect, even if such requirements arise, or must be complied with, after the exemption takes effect.
- (4) A unit exempt under 40 CFR 97.605 shall lose its exemption on the first date on which the unit resumes operation. Such unit shall be treated, for purposes of applying allocation, monitoring, reporting, and recordkeeping requirements under this subpart, as a unit that commences commercial operation on the first date on which the unit resumes operation.

Transport Rule SO₂ Group 2 Trading Program Special Provisions

- (1) A unit exempt under 40 CFR 97.705 shall not emit any SO₂, starting on the date that the exemption takes effect.
- (2) For a period of 5 years from the date the records are created, the owners and operators of a unit exempt under 40 CFR 97.705 shall retain, at the source that includes the unit, records demonstrating that the unit is permanently retired. The 5-year period for keeping records may be extended for cause, at any time before the end of the period, in writing by the Administrator. The owners and operators bear the burden of proof that the unit is permanently retired.
- (3) The owners and operators and, to the extent applicable, the designated representative of a unit exempt under 40 CFR 97.705 shall comply with the requirements of the TR SO₂ Group 2 Trading Program concerning all periods for which the exemption is not in effect, even if such requirements arise, or must be complied with, after the exemption takes effect.
- (4) A unit exempt under 40 CFR 97.705 shall lose its exemption on the first date on which the unit resumes operation. Such unit shall be treated, for purposes of applying allocation, monitoring, reporting, and recordkeeping requirements under this subpart, as a unit that commences commercial operation on the first date on which the unit resumes operation.

STEP 6

Read the statement of compliance and the appropriate certification statements and sign and date.

Statement of Compliance

I certify that the unit identified above at STEP 1 was (or will be) permanently retired on the date identified at STEP 3 and will comply with the appropriate Special Provisions listed at STEP 5.

Certification (for Acid Rain, CAIR, or Transport Rule designated representatives or alternate Acid Rain, CAIR, or Transport Rule designated representatives only)

I am authorized to make this submission on behalf of the owners and operators of the source and unit for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.

Name	Matthew W. Bowden	Title	Vice President, Environmental Affairs
Owner Company Name	Alabama Power Company		
Phone	(205) 257-4075	Email	G2MATTBOWDR@southernco.com
Signature	<i>Matthew W. Bowden</i>		Date
		8/27/15	

Certification (for certifying officials of units subject to the Acid Rain Program only)

I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.

Name	Title		
Owner Company Name			
Phone	Email		
Signature			Date



Phase II NO_x Compliance Plan

For more information, see instructions and refer to 40 CFR 76.9

This submission is: ☐ New ☒ Revised

Page 1 of 2

STEP 1

Indicate plant name, State, and ORIS code from NADB, if applicable

Barry	AL	0003
Plant Name	State	ORIS Code

STEP 2

Identify each affected Group 1 and Group 2 boiler using the boiler ID# from NADB, if applicable. Indicate boiler type: "CB" for cell burner, "CY" for cyclone, "DBW" for dry bottom wall-fired, "T" for tangentially fired, "V" for vertically fired, and "WB" for wet bottom. Indicate the compliance option selected for each unit.

ID# 1	ID# 2	ID# 3	ID# 4	ID# 5	ID#
Type T	Type T	Type T	Type T	Type T	Type

(a) Standard annual average emission limitation of 0.50 lb/mmBtu (for Phase I dry bottom wall-fired boilers)

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

(b) Standard annual average emission limitation of 0.45 lb/mmBtu (for Phase I tangentially fired boilers)

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

(c) EPA-approved early election plan under 40 CFR 76.8 through 12/31/07
→ indicate above emission limit
ed in plan)

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

(d) Standard annual average emission limitation of 0.46 lb/mmBtu (for Phase II dry bottom wall-fired boilers)

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

(e) Standard annual average emission limitation of 0.40 lb/mmBtu (for Phase II tangentially fired boilers)

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

(f) Standard annual average emission limitation of 0.68 lb/mmBtu (for cell burner boilers)

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

(g) Standard annual average emission limitation of 0.86 lb/mmBtu (for cyclone boilers)

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

(h) Standard annual average emission limitation of 0.80 lb/mmBtu (for vertically fired boilers)

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

(i) Standard annual average emission limitation of 0.84 lb/mmBtu (for wet bottom boilers)

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

(j) NO_x Averaging Plan (include NO_x Averaging form)

<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
-------------------------------------	-------------------------------------	-------------------------------------	-------------------------------------	-------------------------------------	--------------------------

(k) Common stack pursuant to 40 CFR 75.17(a)(2)(i)(A) (check the standard emission limitation box above for most emission limitation applicable to any unit utilizing stack)

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

(l) Common stack pursuant to 40 CFR 75.17(a)(2)(i)(B) with NO_x Averaging (check the NO_x Averaging Plan box and include NO_x Averaging form)

<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-------------------------------------	-------------------------------------	-------------------------------------	--------------------------	--------------------------	--------------------------

Plant Name (from Step 1) **Barry**

STEP 2, cont'd.

(m) EPA-approved common stack apportionment method pursuant to 40 CFR 75.17(a)(2)(i)(C), (a)(2)(iii)(B), or (b)(2)

(n) AEL (include Phase II AEL Demonstration Period, Final AEL Petition, or AEL Renewal form as appropriate)

(o) Petition for AEL demonstration period or final AEL under review by U.S. EPA or demonstration period ongoing

(p) Repowering extension plan approved or under review

ID#	ID#	ID#	ID#	ID#	ID#
Type	Type	Type	Type	Type	Type
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

STEP 3

Read the standard requirements and certification, enter the name of the designated representative, sign &

Standard Requirements

General. This source is subject to the standard requirements in 40 CFR 72.9 (consistent with 40 CFR 76.8(e)(1)(i)). These requirements are listed in this source's Acid Rain Permit.

Special Provisions for Early Election Units

Nitrogen Oxides. A unit that is governed by an approved early election plan shall be subject to an emissions limitation for NO_x as provided under 40 CFR 76.8(a)(2) except as provided under 40 CFR 76.8(e)(3)(iii).

Liability. The owners and operators of a unit governed by an approved early election plan shall be liable for any violation of the plan or 40 CFR 76.8 at that unit. The owners and operators shall be liable, beginning January 1, 2000, for fulfilling the obligations specified in 40 CFR Part 77.

Termination. An approved early election plan shall be in effect only until the earlier of January 1, 2008 or January 1 of the calendar year for which a termination of the plan takes effect. If the designated representative of the unit under an approved early election plan fails to demonstrate compliance with the applicable emissions limitation under 40 CFR 76.5 for any year during the period beginning January 1 of the first year the early election takes effect and ending December 31, 2007, the permitting authority will terminate the plan. The termination will take effect beginning January 1 of the year after the year for which there is a failure to demonstrate compliance, and the designated representative may not submit a new early election plan. The designated representative of the unit under an approved early election plan may terminate the plan any year prior to 2008 but may not submit a new early election plan. In order to terminate the plan, the designated representative must submit a notice under 40 CFR 72.40(d) by January 1 of the year for which the termination is to take effect. If an early election plan is terminated any year prior to 2000, the unit shall meet, beginning January 1, 2000, the applicable emissions limitation for NO_x for Phase II units with Group 1 boilers under 40 CFR 76.7. If an early election plan is terminated on or after 2000, the unit shall meet, beginning on the effective date of the termination, the applicable emissions limitation for NO_x for Phase II units with Group 1 boilers under 40 CFR 76.7.

Certification

I am authorized to make this submission on behalf of the owners and operators of the affected source or affected units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.

Name	Anthony J. Marino	
Signature	<i>Anthony J. Marino</i>	Date <i>6/13/03</i>



Acid Rain NO_x Averaging Plan

For more information, see instructions and refer to 40 CFR 76.11

Page 1

This submission is: ☐ New ☒ Revised

Page 1 of 3

STEP 1

Identify the units participating in this averaging plan by plant name, State, and unit ID. In column (a), fill in each unit's applicable emission limitation from 40 CFR 76.5, 76.6, or 76.7. In column (b), assign an alternative contemporaneous annual emissions limitation (ACEL) in lb/mmBtu to each unit. In column (c), assign an annual heat input limitation in mmBtu to each unit. Continue to page 3 if necessary.

Plant Name	State	Unit ID#	(a) Emission Limitation	(b) ACEL	(c) Annual Heat Input Limit
Barry	AL	1	0.40	0.60	1,000,000
Barry	AL	2	0.40	0.60	1,000,000
Barry	AL	4	0.40	0.60	15,000,000
Barry	AL	5	0.40	0.38	25,000,000
Gadsden	AL	1	0.45	0.60	3,500,000
Gadsden	AL	2	0.45	0.60	3,500,000
Gaston	AL	1	0.50	0.60	10,000,000
Gaston	AL	2	0.50	0.60	12,500,000
Gaston	AL	3	0.50	0.60	10,000,000

STEP 2

Use the formula to enter the Btu-weighted annual emission rate averaged over the units if they are operated in accordance with the proposed averaging plan and the Btu-weighted annual average emission rate for the same units if they are operated in compliance with 40 CFR 76.5, 76.6, or 76.7. The former must be less than or equal to the latter.

Btu-weighted annual emission rate averaged over the units if they are operated in accordance with the proposed averaging plan

0.43

$$\frac{\sum_{i=1}^n (R_{Li} \times HI_i)}{\sum_{i=1}^n HI_i}$$

Btu-weighted annual average emission rate for same units operated in compliance with 40 CFR 76.5, 76.6 or 76.7

0.46

$$\frac{\sum_{i=1}^n [R_{Li} \times HI_i]}{\sum_{i=1}^n HI_i}$$

≤

Where,

R_{Li} = Alternative contemporaneous annual emission limitation for unit i, in lb/mmBtu, as specified in column (b) of Step 1;

R_{Li} = Applicable emission limitation for unit i, in lb/mmBtu, as specified in column (a) of Step 1;

HI_i = Annual heat input for unit i, in mmBtu, as specified in column (c) of Step 1;

n = Number of units in the averaging plan

Alabama Power Averaging Plan Participating Plants
Plant Name (from Step 1)

NOx Averaging - Page 2

STEP 3

Identify the first calendar year in which this plan will apply.

January 1, 2020

STEP 4

Special Provisions

Read the special provisions and certification, enter the name of the designated representative, and sign and date.

Emission Limitations

Each affected unit in an approved averaging plan is in compliance with the Acid Rain emission limitation for NOx under the plan only if the following requirements are met:

- (i) For each unit, the unit's actual annual average emission rate for the calendar year, in lb/mmBtu, is less than or equal to its alternative contemporaneous annual emission limitation in the averaging plan, and
- (a) For each unit with an alternative contemporaneous emission limitation less stringent than the applicable emission limitation in 40 CFR 76.5, 76.6, or 76.7, the actual annual heat input for the calendar year does not exceed the annual heat input limit in the averaging plan,
- (b) For each unit with an alternative contemporaneous emission limitation more stringent than the applicable emission limitation in 40 CFR 76.5, 76.6, or 76.7, the actual annual heat input for the calendar year is not less than the annual heat input limit in the averaging plan, or
- (ii) If one or more of the units does not meet the requirements of (i), the designated representative shall demonstrate, in accordance with 40 CFR 76.11(d)(1)(ii)(A) and (B), that the actual Btu-weighted annual average emission rate for the units in the plan is less than or equal to the Btu-weighted annual average rate for the same units had they each been operated, during the same period of time, in compliance with the applicable emission limitations in 40 CFR 76.5, 76.6, or 76.7.
- (iii) If there is a successful group showing of compliance under 40 CFR 76.11(d)(1)(ii)(A) and (B) for a calendar year, then all units in the averaging plan shall be deemed to be in compliance for that year with their alternative contemporaneous emission limitations and annual heat input limits under (i).

Liability

The owners and operators of a unit governed by an approved averaging plan shall be liable for any violation of the plan or this section at that unit or any other unit in the plan, including liability for fulfilling the obligations specified in part 77 of this chapter and sections 113 and 411 of the Act.

Termination

The designated representative may submit a notification to terminate an approved averaging plan, in accordance with 40 CFR 72.40(d), no later than October 1 of the calendar year for which the plan is to be terminated.

Certification

I am authorized to make this submission on behalf of the owners and operators of the affected source or affected units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.

Name Susan B. Comensky

Signature Susan B. Comensky

Date 12/18/19

NO_x Averaging - Page 3

(C)

[illegible]