



MAJOR SOURCE OPERATING PERMIT

Permittee: **PowerSouth Energy Cooperative**
Facility Name: **McIntosh Power Plant**
Facility No.: **108-0012**
Location: **McIntosh, Washington 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***
Effective Date: ***Draft***
Expiration Date: ***Draft***

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General Permit Provisos

Federally Enforceable Provisos	Regulations
<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>Rule 335-3-16-.02(6)</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>Rule 335-3-16-.12(2)</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, subdivision, clause, or phrase of this permit that shall be directly involved in the controversy in which such judgment shall have been rendered.</p>	<p>Rule 335-3-16-.05(e)</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-.05(f)</p> <p>Rule 335-3-16-.05(g)</p>
<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>Rule 335-3-16-.05(h)</p>
<p>6. <u>Property Rights</u></p>	

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<p>The issuance of this permit does not convey any property rights of any sort, or any exclusive privilege.</p>	Rule 335-3-16-.05(i)
<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>	Rule 335-3-16-.05(j)
<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>	Rule 335-3-16-.05(k)
<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>	Rule 335-3-16-.07(a)
<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 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. 	Rule 335-3-16-.07(b)
<p>11. <u>Compliance Provisions</u></p>	

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<p>(a) The permittee shall continue to comply with the applicable requirements with which the company has certified that it is already in compliance.</p> <p>(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>12. <u>Compliance Certification</u></p> <p>A compliance certification shall be submitted yearly no later than December 31st unless more frequent periods are specified according to the specific rule governing the source or required by the Department. The compliance certification shall cover the reporting period of November 1st through October 31st of each year.</p> <p>(a) The compliance certification shall include the following:</p> <ol 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 335-3-16-.05(c) (Monitoring and Recordkeeping Requirements); (4) Whether the methods(s) or other means used to assure compliance provided continuous or intermittent data; (5) Such other facts as the Department may require to determine the compliance status of the source; <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;">EPA Region 4 via email at EPA_R4_CAA_Reports@epa.gov Or EPA's Compliance and Emissions Data Reporting Interface (CEDRI).</p>	Rule 335-3-16-.07(e)

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<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> <ul style="list-style-type: none"> (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. (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. (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 permit. (d) The Administrator or the Department determines that this permit must be revised or revoked to assure compliance with the applicable requirements. 	<p>Rule 335-3-16-.13(5)</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), Code of Alabama 1975, as amended</p>
<p>15. <u>Equipment Maintenance or Breakdown</u></p> <ul style="list-style-type: none"> (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: <ul 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; 	<p>Rule 335-3-1-.07(1) Rule 335-3-1-.07(2)</p>

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<p>(2) The expected length of time that the air pollution control equipment will be out of service;</p> <p>(3) The nature and quantity of emissions of air contaminants likely to occur during the shutdown period;</p> <p>(4) Measures such as the use of off-shift labor and equipment that will be taken to minimize the length of the shutdown period;</p> <p>(5) The reasons that it would be impossible or impractical to shut down the source operation during the maintenance period.</p> <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, 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 shall be notified when the breakdown has been corrected.</p>	
<p>16. <u>Operation of Capture and Control Devices</u></p> <p>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), Code of Alabama 1975, 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. A minimum of one, or a combination, of the following methods shall be utilized to minimize airborne dust from plant or haul roads and grounds:</p>	<p>Rule 335-3-4-.02</p>

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<ul style="list-style-type: none"> (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; (2) By reducing the speed of vehicular traffic to a point below that at which dust emissions are created; (3) By paving; (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; <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 Rule 335-3-16-.14</p>
<p>20. <u>Recordkeeping Requirements</u></p> <ul style="list-style-type: none"> (a) Records of required monitoring information of the source shall include the following: <ul style="list-style-type: none"> (1) The date, place, and time of all sampling or measurements; (2) The date analyses were performed; (3) The company or entity that performed the analyses; (4) The analytical techniques or methods used; (5) The results of all analyses; and (6) The operating conditions that existed at the time of sampling or measurement. (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 the permit 	<p>Rule 335-3-16-.05(c)(2)</p>

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<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 day 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> <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> <p>(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.</p> <p>(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 require probe cleaning).</p> <p>(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.</p> <p>(4) A sketch or sketches showing sampling point locations and their relative positions to the nearest upstream and downstream gas flow disturbances.</p> <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>Rule 335-3-16-.05(c)(3)</p> <p>Rule 335-3-1-.05(3) Rule 335-3-1-.04(1)</p> <p>Rule 335-3-1-.04</p> <p>Rule 335-3-1-.04</p>

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<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>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>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>40 CFR Part 82</p>
<p>26. <u>Chemical Accidental Prevention Provisions</u></p> <p>If a chemical listed in Table 1 of 40 CFR 68.130 is present in a process in quantities greater than the threshold quantity listed in Table 1, then:</p> <p>(a) The owner or operator shall comply with the provisions in 40 CFR Part 68.</p> <p>(b) The owner or operator shall submit one of the following:</p> <p>(1) A compliance schedule for meeting the requirements of 40 CFR 68 by the date provided in 40 CFR 68.10(a) or,</p> <p>(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>	<p>40 CFR Part 68</p>

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<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 be made 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 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 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>Rule 335-3-4-.01(1)</p>
<p>30. <u>Fuel-Burning Equipment</u></p> <p>(a) 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 Rule 335-3-4-.03.</p> <p>(b) 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 Rule 335-3-5-.01.</p>	<p>Rule 335-3-4-.03</p> <p>Rule 335-3-5-.01</p>
<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 Rule 335-3-4-.04.</p>	<p>Rule 335-3-4-.04</p>
<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>	<p>Rule 335-3-1-.05</p>
<p>33. <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>

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<p>34. <u>Permit Shield</u></p> <p>A permit shield exists under this operating permit in accordance with ADEM Admin. Code r. 335-3-16-.10 in that compliance with the conditions of this permit shall be deemed in compliance with any applicable requirements as of the date of permit issuance. The permit shield is based on the accuracy of the information supplied in the application for this permit. Under this shield, it has been determined that requirements listed as non-applicable in the application are not applicable to this source.</p>	Rule 335-3-16-.10

Summary Page for Unit 1 - 110 MW Compressed Air Energy Storage (CAES) Turbine

Description: 110 MW Compressed Air Energy Storage (CAES) Turbine

Emission Unit No.: Unit 1

Installation Date: 1989

Reconstruction/Modification Date: N/A

Operating Capacity: 538 MMBtu/hr

Operating Schedule: 8760 hours/year

This unit contains equipment that is subject to the following NSPS, NESHAP, or MACT:

40 CFR Part 60 Subpart GG

Emission limitations:

Emission Point	Description	Pollutant	Emission limit	Regulation
Unit 1	CAES Turbine	Opacity	Shall not discharge more than one 6-minute average opacity greater than 20% in any 60-minute period	Rule 335-3-4-.01(1)(a)
			Shall not discharge a 6-minute average opacity greater than 40%	Rule 335-3-4-.01(1)(b)
Unit 1	CAES Turbine	SO ₂	0.015 percent by volume at 15% O ₂	40 CFR 60.333(a)
			Sulfur content of fuels < 0.8% by weight	40 CFR 60.333(b)
			Shall burn only natural gas	Rule 335-3-14-.04(9) (Anti-PSD)
Unit 1	CAES Turbine	NO _x	208 ppmv at 15% O ₂	40 CFR 60.332(a)(1)
			≤ 246 combined tons per rolling 12-month period as determined by CEMS for Units 1, 2, and 3	Rule 335-3-14-.04(9) (Anti-PSD)

Provisos for Unit 1 - 110 MW Compressed Air Energy Storage (CAES) Turbine

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<u>Applicability</u>	
1. This source is subject to the applicable requirements of ADEM Admin. Code r. 335-3-16, "Major Source Operating Permits".	Rule 335-3-16
2. This source has enforceable limits in place in order 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(9) (Anti-PSD)
3. This source is subject to the provisions of 40 CFR 60 Subpart GG, "Standards of Performance for Stationary Gas Turbines".	Rule 335-3-10-.02(33) 40 CFR 60.330
4. This source is subject to the applicable requirements of Subpart A, the General Provisions of 40 CFR Part 60.	Rule 335-3-10-.02(1) 40 CFR 60.1(a)
5. This source subject to the Acid Rain Rules 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.	Rule 335-3-18 40 CFR Parts 72, 73 and 75
6. This source is subject to the applicable provisions of the Cross-State Air Pollution Rule 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 Rules 335-3-8-.07 through 335-3-8-.70
<u>Emission Standards</u>	
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. Except for one 6-minute period during any 60-minute period, this unit shall not discharge into the atmosphere particulate that results in an opacity greater than 20%, as determined by a 6-minute average. At no time shall this unit discharge into the atmosphere particulate that results in an opacity greater than 40%, as determined by a 6-minute average.	Rule 335-3-4-.01(1)(a) Rule 335-3-4-.01(1)(b)
3. The sulfur dioxide (SO ₂) emissions from this unit shall not exceed 0.015 percent by volume at 15% oxygen and on a dry basis.	40 CFR 60.333(a)
4. Sulfur content of all fuels burned in this unit shall not exceed 0.8% by weight.	40 CFR 60.333(b)
5. This unit shall only burn natural gas.	Rule 335-3-14-.04(9) (Anti-PSD)
6. The nitrogen oxide (NO _x) emissions from this unit shall not exceed 208 ppmv at 15% oxygen.	40 CFR 60.332(a)(1)

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7. The combined NO _x emissions from Units 1, 2, and 3 shall not exceed 246 tons per rolling 12-month period, as determined by continuous monitoring emissions systems.	Rule 335-3-14-.04(9) (Anti-PSD)
<u>Compliance and Performance Test Methods and Procedures</u>	
1. Compliance with the opacity standards of Emission Standards Proviso No. 2 shall be determined by EPA Reference Method 9 as found in Appendix A-4 of 40 CFR Part 60.	Rule 335-3-1-.05
2. Compliance with the fuel sulfur content limits of Emission Standards Proviso No. 4 shall be determined by ASTM D1072-80, 90 (Reapproved 1994); D3246-81, 92, 96; D4468-85 (Reapproved 2000); D6667-01 (all of which are incorporated by reference, see 40 CFR 60.17); or the latest editions or test methods approved by 40 CFR Part 75 (as currently incorporated or as amended).	Rule 335-3-1-.05 40 CFR 60.335
3. Compliance with Emission Standards Proviso Nos. 3 & 6 shall be determined by following the methods and procedures in 40 CFR 60.335.	Rule 335-3-1-.05 40 CFR 60.335
4. Compliance with nitrogen oxide of Emission Standards Proviso No. 7 shall be determined by a continuous emissions monitoring system (CEMS).	Rule 335-3-1-.05
<u>Emission Monitoring</u>	
1. A nitrogen oxide continuous emission monitoring system (CEMS) shall be utilized as a determiner of compliance with NO _x limitations. The nitrogen oxide emission rate shall be monitored using a four-hour rolling average computed by the continuous emission monitor system. The CEMS shall meet the specifications and procedures of 40 CFR Part 75 and will be certified and maintained in accordance with 40 CFR Part 75. Additionally, the CEMS shall meet the requirements of 40 CFR 60.334(b).	Rule 335-3-14-.04(9) 40 CFR Part 75 40 CFR 60.334(c)
2. The Permittee may elect not to monitor the total sulfur content of the gaseous fuel combusted in the turbine, if the gaseous fuel is demonstrated to meet the definition of natural gas in 40 CFR 60.331(u). Vendor certifications specifying that the maximum total sulfur content of the fuel is 20.0 grains/100 scf or less shall be maintained.	40 CFR 60.334(h)(3)(i)
<u>Recordkeeping and Reporting Requirements</u>	
1. All records shall be maintained in a form suitable for inspection for a period of at least five years following the date of record generation. All records shall be made available upon request.	Rule 335-3-16-.05(c)
2. Records documenting the sulfur content of the fuel burned in this unit, including the vendor certifications required by Emission Monitoring Proviso No. 2, shall be maintained.	Rule 335-3-16-.05(c)

Federally Enforceable Provisos	Regulations
3. Records which document combined monthly and rolling 12-month NOx emissions totals form Units 1, 2, & 3 shall be maintained.	Rule 335-3-14-.04(9) (Anti-PSD)
4. The Permittee shall report the monthly and 12-month rolling totals of NOx emissions from Unit 1 to the Department within 30 days of the end of each calendar quarter.	Rule 335-3-14-.04(9) (Anti-PSD)
<p>5. The Permittee shall submit reports of excess emissions and monitor downtime, in accordance with 40 CFR 60.7(c), by the 30th day following the end of each six-month period. Excess emissions shall be reported for all periods of unit operation, including startup, shutdown and malfunction. For the purpose of this report, periods of excess emissions and monitor downtime that shall be reported are defined as follows:</p> <p>(a) An hour of excess emissions shall be any unit operating hour in which the 4-hour rolling average NOx concentration exceeds Emission Standards Proviso No. 6. A “4-hour rolling average NOx concentration” is the arithmetic average of the average NOx concentration measured by the CEMS for a given hour (corrected to 15 percent O₂ and, if required under 40 CFR 60.335(b)(1), to ISO standard conditions) and the three unit operating hour average NOx concentrations immediately preceding that unit operating hour.</p> <p>(b) A period of monitor downtime shall be any unit operating hour in which sufficient data are not obtained to validate the hour, for either NOx concentration or diluent (or both).</p> <p>(c) Each report shall include the ambient conditions (temperature, pressure, and humidity) at the time of the excess emission period and (if the Permittee has claimed an emission allowance for fuel bound nitrogen) the nitrogen content of the fuel during the period of excess emissions. The Permittee does not have to report ambient conditions if the worst case ISO correction factor is used as specified in 40 CFR 60.334(b)(3)(ii), or the ISO correction equation is not used under the provisions of 40 CFR 60.335(b)(1).</p>	40 CFR 60.334(j)
<u>Acid Rain Requirements</u>	
1. This unit is subject to the Acid Rain rules contained in Rule 335-3-18 and 40 CFR Parts 72, 73 and 75. Applicable Acid Rain permits are contained in the Acid Rain portion of this Operating Permit.	Rule 335-3-18 40 CFR Parts 72, 73 and 75
<u>CSAPR Requirements</u>	
1. This unit is subject to the applicable provisions of 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

Federally Enforceable Provisos	Regulations
2. This unit is subject to the applicable provisions of Cross-State Air Pollution Rule (CSAPR) to include all applicable provisions of the NOx Seasonal and Annual Trading Program requirements.	Rules 335-3-8-.07 through 335-3-8-.70

Summary Page for Units 2 & 3 – 113 MW Simple Cycle Combustion Turbines

Description: 113 MW Simple Cycle Combustion Turbines

Emission Unit No.: Units 2 & 3

Installation Date: 1998

Reconstruction/Modification Date: 2000

Operating Capacity: 1,394 MMBtu/hr

Operating Schedule: 8760 hours/year

This unit contains equipment that is subject to the following NSPS, NESHAP, or MACT:

40 CFR Part 60 Subpart GG

Emission limitations:

Emission Point	Description	Pollutant	Emission limit	Regulation
Units 2 & 3	113 MW Simple Cycle Turbines	Opacity	10%	Rule 335-3-14-.04(9) (Anti-PSD)
Units 2 & 3	113 MW Simple Cycle Turbines	PM	0.01 lb/MMBtu and 15.04 lb/hr	Rule 335-3-14-.04(9) (Anti-PSD)
Units 2 & 3	113 MW Simple Cycle Turbines	SO ₂	0.015 percent by volume at 15% O ₂	40 CFR 60.333(a)
			Sulfur content of natural gas < 0.8% by weight	40 CFR 60.333(b)
			Sulfur content of distillate fuel oil < 0.05% by weight	Rule 335-3-14-.04(9) (Anti-PSD)
Units 2 & 3	113 MW Simple Cycle Turbines	NO _x	≤ 246 combined tons per rolling 12-month period as determined by CEMS for Units 1, 2, and 3	Rule 335-3-14-.04(9) (Anti-PSD)
			82 ppmv at 15% O ₂	40 CFR 60.332(a)(1)
Units 2 & 3	113 MW Simple Cycle Turbines	VOC	0.01 lb/MMBtu and 15.04 lb/hr	Rule 335-3-14-.04(9) (Anti-PSD)
Units 2 & 3	113 MW Simple Cycle Turbines	CO	Natural Gas: 0.04 lb/MMBtu and 60.16 lb/hr	Rule 335-3-14-.04(9) (Anti-PSD)
			Distillate Fuel Oil: 0.06 lb/MMBtu and 90.24 lb/hr	

Provisos for Units 2 & 3 – 113 MW Simple Cycle Combustion Turbines

Federally Enforceable Provisos

Regulations

Applicability

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| 1. These sources are subject to the applicable requirements of ADEM Admin. Code r. 335-3-16, “Major Source Operating Permits”. | Rule 335-3-16 |
| 2. These sources have enforceable limits in place in order to prevent them 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(9)
(Anti-PSD) |
| 3. These sources are subject to the provisions of 40 CFR 60 Subpart GG, “Standards of Performance for Stationary Gas Turbines”. | Rule 335-3-10-.02(33)
40 CFR 60.330 |
| 4. These sources are subject to the applicable requirements of Subpart A, the General Provisions of 40 CFR Part 60. | Rule 335-3-10-.02(1)
40 CFR 60.1(a) |
| 5. These sources are subject to the Acid Rain Rules 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. | Rule 335-3-18
40 CFR Parts 72, 73, and 75 |
| 6. These sources are subject to the applicable provisions of the Cross-State Air Pollution Rule 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
Rules 335-3-8-.07 through
335-3-8-.70 |

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. Visible emissions from these units shall not exceed 10% opacity. | Rule 335-3-14-.04(9)
(Anti-PSD) |
| 3. Particulate matter (PM) emissions from each unit shall not exceed 0.01 lb/MMBtu and 15.04 lb/hr while burning natural gas or distillate fuel oil. | Rule 335-3-4-.01(1)(a) and (b)
Rule 335-3-14-.04(9)
(Anti-PSD) |
| 4. The sulfur dioxide (SO ₂) emissions from each unit shall not exceed 0.015 percent by volume at 15% oxygen and on a dry basis. | 40 CFR 60.333(a) |
| 5. Sulfur content of natural gas burned in these units shall not exceed 0.8% by weight. | 40 CFR 60.333(b) |
| 6. Sulfur content of fuel oil burned in these units shall not exceed 0.05% by weight. | Rule 335-3-14-.04(9)
(Anti-PSD)
40 CFR 60.333(b) |

Federally Enforceable Provisos	Regulations
7. The combined nitrogen oxide (NO _x) emissions from Units 1, 2, and 3 shall not exceed 246 tons per rolling 12-month period, as determined by continuous monitoring emissions systems.	Rule 335-3-14-.04(9) (Anti-PSD)
8. The nitrogen oxide (NO _x) emissions from each unit shall not exceed 82 ppmvd at 15% oxygen on a dry basis with an upward adjustment for heat rate and fuel bound nitrogen.	40 CFR 60.332(a)
9. The volatile organic compound (VOC) emissions from each unit shall not exceed 0.01 lb/MMBtu and 15.04 lb/hr while burning distillate fuel oil or natural gas.	Rule 335-3-14-.04(9) (Anti-PSD)
10. The carbon monoxide (CO) emissions from each unit shall not exceed 0.04 lb/MMBtu and 60.16 lb/hr while burning natural gas and 0.06 lb/MMBtu and 90.24 lb/hr while burning distillate fuel oil.	Rule 335-3-14-.04(9) (Anti-PSD)
11. These units shall operate at loads greater than that set by the most recent emissions test that demonstrated compliance with applicable emissions limitations.	Rule 335-3-14-.04
12. During period of startup, shutdown, and load change (as defined below), the Permittee shall comply with the following work practice standards in lieu of the numerical limits in Provisos 2, 3, 9, and 10 above: <ul style="list-style-type: none"> <li>(a) Take all reasonable actions to minimize the magnitude and duration of elevated emission conditions during these periods; <li>(b) Employ good operation and maintenance practices on the combustion turbine and associated pollution control technology; and <li>(c) Comply with emission monitoring, recordkeeping, and reporting requirements in this permit. <p><u>Startup</u>: The period from when the combustion turbine is started until it reaches lean premix mode of combustion.</p> <p><u>Shutdown</u>: The period when the load on the combustion turbine is decreasing from lean premix mode of combustion.</p> <p><u>Load Change</u>: A change in heat input creates a transient operating condition that is readily identifiable on the load chart recording.</p>	Rule 335-3-14-.03(1)(h)(1)
<u>Compliance and Performance Test Methods and Procedures</u>	
1. Compliance with the opacity standards of Emission Standards Proviso No. 2 shall be determined by EPA Reference Method 9 as found in Appendix A-4 of 40 CFR Part 60.	Rule 335-3-1-.05
2. Compliance with the particulate matter limit of Emission Standards Proviso No. 3 shall be determined by EPA Reference Method 5 or 17, as found in Appendix A-3 and Appendix A-6, respectively, of 40 CFR Part 60.	Rule 335-3-1-.05

Federally Enforceable Provisos	Regulations
3. Compliance with the fuel sulfur content limits of Emission Standards Proviso Nos. 5 and 6 shall be determined by ASTM D1072-80, 90 (Reapproved 1994); D3246-81, 92, 96; D4468-85 (Reapproved 2000); D6667-01 (all of which are incorporated by reference, see 40 CFR 60.17); or the latest editions or test methods approved by 40 CFR Part 75 (as currently incorporated or as amended).	Rule 335-3-1-.05 40 CFR 60.335
4. Compliance with the nitrogen oxide limits of Emission Standards Proviso Nos. 7 & 8 shall be determined by a continuous emissions monitoring system (CEMS).	Rule 335-3-1-.05 40 CFR 60.334
5. Compliance with the sulfur dioxide limit of Emission Standards Proviso No. 4 shall be determined by following the methods and procedures in 40 CFR 60.335.	Rule 335-3-1-.05 40 CFR 60.335
6. Compliance with the volatile organic compounds limit of Emission Standards Proviso No. 9 shall be determined by EPA Reference Method 25, 25A, or 25B, as found in Appendix A-7 of 40 CFR Part 60.	Rule 335-3-1-.05
7. Compliance with the carbon monoxide limit of Emission Standards Proviso No. 10 shall be determined by EPA Reference Method 10 as found in Appendix A-4 of 40 CFR Part 60.	Rule 335-3-1-.05
<u>Emission Monitoring</u>	
1. A nitrogen oxide continuous emission monitoring system (CEMS) shall be utilized as a determiner of compliance with NO _x limitations. The nitrogen oxide emission rate shall be monitored using a rolling 4-hour average computed by the continuous emission monitor system. The CEMS shall meet the specifications and procedures of 40 CFR Part 75 and will be certified and maintained in accordance with 40 CFR Part 75. Additionally, the CEMS shall meet the requirements of 40 CFR 60.334(b).	Rule 335-3-16-.05(c) 40 CFR Part 75 40 CFR 60.334(c)
2. The Permittee may elect not to monitor the total sulfur content of the gaseous fuel combusted in the turbine, if the gaseous fuel is demonstrated to meet the definition of natural gas in 40 CFR 60.331(u). Vendor certifications specifying that the maximum total sulfur content of the fuel is 20.0 grains/100 scf or less shall be maintained.	40 CFR 60.334(h)(3)(i)
3. The Permittee shall monitor the total sulfur content of the fuel oil being fired in the combustion turbines using the methods in Proviso No. 3 of the <i>Compliance and Performance Test Methods and Procedures</i> section above. The Permittee shall use one of the total sulfur sampling options and the associated sampling frequency described in sections 2.2.3, 2.2.4.1, 2.2.4.2, and 2.2.4.3 of Appendix D to 40 CFR Part 75 (i.e., flow proportional sampling, daily sampling, sampling from the unit's storage tank after each addition of fuel to the tank, or sampling each delivery prior to combining it with fuel oil already in the intended storage tank).	40 CFR 60.334(h)(1) 40 CFR 60.334(i)(1)
4. The Permittee shall conduct performance testing according to the requirements in the <i>General Permit Provisos</i> and the <i>Compliance and Performance Test Methods</i>	Rule 335-3-16-.05(c)

Federally Enforceable Provisos	Regulations
<p><i>and Procedures</i> section above to demonstrate compliance with the carbon monoxide limit of Emission Standards Proviso No. 10 by December 31, 2025.</p> <ul style="list-style-type: none"> (a) Performance tests shall be conducted under such conditions as the Department specifies to the Permittee based on representative performance of Units 2 & 3 for the period being tested. (b) Each performance test must consist of three (3) separate runs; pollutant sampling for each run must be conducted for the time period specified in the applicable method or, in the absence of a specific time period in the test method, for a minimum of one (1) hour. (c) Subsequent performance tests shall be conducted by December 31 every five (5) years to demonstrate compliance with Emission Standards No. 6. 	
<u>Recordkeeping and Reporting Requirements</u>	
1. All records shall be maintained in a form suitable for inspection for a period of at least five years following the date of record generation. All records shall be made available upon request.	Rule 335-3-16-.05(c)
2. Records documenting the sulfur content of the fuel burned in these units, including vendor certifications required by Emission Monitoring Proviso No. 2, shall be maintained.	Rule 335-3-16-.05(c)
3. Records which document combined monthly and rolling 12-month NO _x emissions totals from Units 1, 2, & 3 shall be maintained.	Rule 335-3-14-.04(9) (Anti-PSD)
4. The Permittee shall report the monthly and 12-month rolling totals of NO _x emissions from Units 2 & 3 to the Department within 30 days of the end of each calendar quarter.	Rule 335-3-14-.04(9) (Anti-PSD)
5. The Permittee shall submit reports of excess emissions and monitor downtime, in accordance with 40 CFR 60.7(c), by the 30 th day following the end of each six-month period. Excess emissions shall be reported for all periods of unit operation, including startup, shutdown and malfunction. For the purpose of this report, periods of excess emissions and monitor downtime that shall be reported are defined as follows:	40 CFR 60.334(j)
<ul style="list-style-type: none"> (a) An hour of excess emissions shall be any unit operating hour in which the 4-hour rolling average NO_x concentration exceeds Emission Standards Proviso No. 8. A “4-hour rolling average NO_x concentration” is the arithmetic average of the average NO_x concentration measured by the CEMS for a given hour (corrected to 15 percent O₂ and, if required under 40 CFR 60.335(b)(1), to ISO standard conditions) and the three unit operating hour average NO_x concentrations immediately preceding that unit operating hour. 	

Federally Enforceable Provisos	Regulations
<p>(b) A period of monitor downtime shall be any unit operating hour in which sufficient data are not obtained to validate the hour, for either NO_x concentration or diluent (or both).</p> <p>(c) Each report shall include the ambient conditions (temperature, pressure, and humidity) at the time of the excess emission period and (if the Permittee has claimed an emission allowance for fuel bound nitrogen) the nitrogen content of the fuel during the period of excess emissions. The Permittee does not have to report ambient conditions if the worst case ISO correction factor is used as specified in 40 CFR 60.334(b)(3)(ii), or the ISO correction equation is not used under the provisions of 40 CFR 60.335(b)(1).</p> <p>6. The facility shall comply with the recordkeeping and reporting requirements of CSAPR. 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>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>
<u>Acid Rain Requirements</u>	
<p>1. These units are subject to the Acid Rain rules contained in Rule 335-3-18 and 40 CFR Parts 72, 73 and 75. Applicable Acid Rain permits are contained in the Acid Rain portion of this Operating Permit.</p>	<p>Rule 335-3-18 40 CFR Parts 72, 73, and 75</p>
<u>CSAPR Requirements</u>	
<p>1. These units are subject to the applicable provisions of 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. These units are subject to the applicable provisions of Cross-State Air Pollution Rule (CSAPR) to include all applicable provisions of the NO_x Seasonal and Annual Trading Program requirements.</p>	<p>Rules 335-3-8-.07 through 335-3-8-.70</p>

Summary Page for Units 4 & 5 – 170.5 MW Simple Cycle Combustion Turbines

Description: 170.5 MW Simple Cycle Combustion Turbines

Emission Unit No.: Units 4 & 5

Installation Date: 2010

Reconstruction/Modification Date: N/A

Operating Capacity: 1,613 MMBtu/hr

Operating Schedule: 8760 hours/year

This unit contains equipment that is subject to the following NSPS, NESHAP, or MACT:

40 CFR Part 60 Subpart KKKK

Emission limitations:

Emission Point	Description	Pollutant	Emission limit	Regulation
Units 4 & 5	170.5 MW Simple Cycle Turbines	Opacity	Shall not discharge more than one 6-minute average opacity greater than 20% in any 60-minute period	Rule 335-3-4-.01(1)(a)
			Shall not discharge a 6-minute average opacity greater than 40%	Rule 335-3-4-.01(1)(b)
Units 4 & 5	170.5 MW Simple Cycle Turbines	SO ₂	0.90 lb/MWh gross output	40 CFR 60.4330(a)(1)
			0.060 lb/MMBtu heat input	40 CFR 60.4330(a)(2)
Units 4 & 5	170.5 MW Simple Cycle Turbines	NO _x	15 ppm at 15% O ₂ when ≥ 75% peak load	40 CFR 60.4340(a)
			96 ppm at 15% O ₂ when < 75% peak load	
			≤ 246 combined tons per rolling 12-month period as determined by CEMS for Units 4 and 5	Rule 335-3-14-.04(9) (Anti-PSD)

Provisos for Units 4 & 5 – 170.5 MW Simple Cycle Combustion Turbines

Federally Enforceable Provisos

Regulations

Applicability

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| 1. These sources are subject to the applicable requirements of ADEM Admin. Code r. 335-3-16, “Major Source Operating Permits.” | Rule 335-3-16 |
| 2. These sources have an enforceable limit in place in order to prevent them 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(9)
(Anti-PSD) |
| 3. These sources are subject to the provisions of 40 CFR 60 Subpart KKKK – “Standards of Performance for Stationary Combustion Turbines.” | Rule 335-3-10-.02(89)
40 CFR 60.4305 |
| 4. These sources are subject to the applicable requirements of Subpart A, the General Provisions of 40 CFR Part 60. | Rule 335-3-10-.02(1)
40 CFR 60.1(a) |
| 5. These sources are subject to the Acid Rain Rules 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. | Rule 335-3-18
40 CFR Parts 72, 73, and 75 |
| 6. These sources are subject to the applicable provisions of the Cross-State Air Pollution Rule 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
Rules 335-3-8-.07 through
335-3-8-.70 |

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. Except for one 6-minute period during any 60-minute period, these units shall not discharge into the atmosphere particulate that results in an opacity greater than 20%, as determined by a 6-minute average. At no time shall these units discharge into the atmosphere particulate that results in an opacity greater than 40%, as determined by a 6-minute average. | Rule 335-3-4-.01(1)(a) and (b) |
| 3. The sulfur dioxide (SO ₂) emissions for each unit shall not exceed 0.90 lb/MWh gross output; or | 40 CFR 60.4330(a)(1) |
| the Permittee may not burn any fuel in the combustion turbines which contains total potential sulfur emissions in excess of 0.060 lb SO ₂ /MMBtu heat input. | 40 CFR 60.4330(a)(2) |
| 4. The nitrogen oxide (NO _x) emissions from each unit shall not exceed 15 ppm (at 15% oxygen) or 0.43 lb/MWh of useful output when operating at 75% peak load or greater and shall not exceed 96 ppm when operating at less than 75% peak load. Compliance with these limits shall be determined using a continuous emissions monitoring system and be based on a 4-hour rolling average basis. | 40 CFR 60.4320(a)
40 CFR 60.4340(b)
40 CFR 60.4350(g) |

Federally Enforceable Provisos	Regulations
5. The combined nitrogen oxide (NO _x) emissions from Units 4 & 5 shall not exceed 246 tons per rolling 12-month period, as determined by continuous monitoring emissions systems.	Rule 335-3-14-.04(9) (Anti-PSD)
6. The Permittee shall operate and maintain these units, air pollution control equipment, and monitoring equipment in a manner consistent with good air pollution control practices for minimizing emissions at all times including during startup, shutdown, and malfunction.	40 CFR 60.4333(a)
<u>Compliance and Performance Test Methods and Procedures</u>	
1. Compliance with the opacity limit of Emission Standards Proviso No. 2 shall be determined by EPA Reference Method 9 as found in Appendix A-4 of 40 CFR Part 60.	Rule 335-3-1-.05
2. Compliance with the sulfur dioxide limit of Emission Standards Proviso No. 3 shall be determined in accordance with the requirements of 40 CFR 60.4360.	40 CFR 60.4360
3. Compliance with the nitrogen oxide limit of Emission Standards Provisos Nos. 4 & 5 shall be determined by a continuous emissions monitoring system (CEMS).	Rule 335-3-1-.05
<u>Emission Monitoring</u>	
1. A nitrogen oxide continuous emission monitoring system (CEMS) shall be utilized as a determiner of compliance with NO _x limitations. The nitrogen oxide emission rate shall be monitored using a rolling four-hour average computed by the continuous emission monitor system. The CEMS shall meet the specifications and procedures of 40 CFR Part 75 and will be certified and maintained in accordance with 40 CFR Part 75. Additionally, the CEMS shall meet the requirements described in 40 CFR 60.4335(b), 40 CFR 60.4345, and 40 CFR 60.4350.	Rule 335-3-16-.05(c) 40 CFR Part 75 40 CFR 60.4340(b)(1)
2. The Permittee is exempt from monitoring the total sulfur content of the fuel provided that the fuel quality characteristics in a current, valid purchase contract, tariff sheet or transportation contract for the fuel, specify that the total sulfur content for natural gas use is 20 grains of sulfur or less per 100 standard cubic feet and the fuel has potential sulfur emissions of less than less than 0.060 lb SO ₂ /MMBtu heat input.	40 CFR 60.4365(a)
<u>Recordkeeping and Reporting Requirements</u>	
1. All records shall be maintained in a form suitable for inspection for a period of at least five years following the date of record generation. All records shall be made available upon request.	Rule 335-3-16-.05(c)
2. Records documenting the sulfur content of the fuel burned in these units, including documents required by Emission Monitoring Proviso No. 2, shall be maintained.	Rule 335-3-16-.05(c)

Federally Enforceable Provisos	Regulations
3. Records which document combined monthly and rolling 12-month NO _x emissions totals form Units 4 & 5 shall be maintained.	Rule 335-3-14-.04(9) (Anti-PSD)
4. The Permittee shall report the monthly and rolling 12-month NO _x emission totals from Units 4 & 5 to the Department within 30 days of the end of each calendar quarter.	Rule 335-3-14-.04(9) (Anti-PSD)
5. The Permittee shall submit reports of excess emissions and monitor downtime, in accordance with 40 CFR 60.7(c), by the 30 th day following the end of each six-month period. Excess emissions shall be reported for all periods of unit operation, including startup, shutdown and malfunction. For the purpose of this report, periods of excess emissions and monitor downtime that shall be reported are defined as follows: (a) A period of excess emissions is any unit operating period in which the 4-hour NO _x emission rate exceeds Emission Standard No. 4. A “4-hour rolling average NO _x emission rate” is the arithmetic average of the average NO _x emission rate in ppm or ng/J (lb/MWh) measured by the continuous emission monitoring equipment for a given hour and the three unit operating hour average NO _x emission rates immediately preceding that unit operating hour. Calculate the rolling average if a valid NO _x emission rate is obtained for at least 3 of the 4 hours. (b) A period of monitor downtime is any unit operating hour in which the data for any of the following parameters are either missing or invalid: NO _x concentration, CO ₂ or O ₂ concentration, fuel flow rate, steam flow rate, steam temperature, steam pressure, or megawatts. The steam flow rate, steam temperature, and steam pressure are only required if you use this information for compliance purposes.	40 CFR 60.4375(a) 40 CFR 60.4380(b) 40 CFR 60.4395
6. The facility shall comply with the recordkeeping and reporting requirements of CSAPR. 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.	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
<u>Acid Rain Requirements</u>	
1. These units are subject to the Acid Rain rules contained in Rule 335-3-18 and 40 CFR Parts 72, 73 and 75. Applicable Acid Rain permits are contained in the Acid Rain portion of this Operating Permit.	Rule 335-3-18 40 CFR Parts 72, 73, and 75
<u>CSAPR Requirements</u>	
1. These units are subject to the applicable provisions of 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

Federally Enforceable Provisos	Regulations
2. These units are subject to the applicable provisions of Cross-State Air Pollution Rule (CSAPR) to include all applicable provisions of the NOx Seasonal and Annual Trading Program requirements.	Rules 335-3-8-.07 through 335-3-8-.70

Summary Page for RICE MACT Units

Description: 1542 HP Emergency Backup Generator (RICE-01)
141 HP Fire Pump Engine (RICE-02)

Emission Unit:	Installation Date:	Reconstruction/Modification Date:
RICE-01	1991	N/A
RICE-02	1991	N/A

Operating Capacity:			
Unit	HP	Type	Fuel
RICE-01	1542	Compression	Diesel
RICE-02	141	Compression	Diesel

Operating Schedule:	Calendar Year Limit:	Non-Emergency Use
RICE-01	≤500 hours/year	≤100/50 hours/year
RICE-02	≤500 hours/year	≤100/50 hours/year

This unit contains equipment that is subject to the following NSPSs, NESHAPs, or MACTs:
40 CFR Part 63 Subpart ZZZZ

Provisos for RICE MACT Units

Federally Enforceable Provisos	Regulations
<u>Applicability</u>	
1. These sources are subject to the applicable requirements of ADEM Admin. Code r. 335-3-16-.03, "Major Source Operating Permits".	Rule 335-3-16-.03
2. These sources are subject to the applicable requirements of 40 CFR Part 63 Subpart ZZZZ, "National Emission Standards for Hazardous Air Pollutants for Reciprocating Internal Combustion Engines (RICE)".	40 CFR 63.6585
3. These sources are subject to the applicable requirements of Subpart A of 40 CFR Part 63, "General Provisions" as listed in Table 8 of Subpart ZZZZ.	40 CFR 63.6665 (Table 8)
<u>Emission Standards</u>	
1. Except for one 6-minute period during any 60-minute period, these units shall not discharge into the atmosphere particulate that results in an opacity greater than 20%, as determined by a 6-minute average. At no time shall these units discharge into the atmosphere particulate that results in an opacity greater than 40%, as determined by a 6-minute average.	Rule 335-3-4-.01(1)(a) and (b)
2. These sources must comply with the requirements of Table 2d-4 of 40 CFR 63 Subpart ZZZZ:	40 CFR 63.6603(a) 40 CFR 63.6625(j)
(a) Change oil and filter every 500 hours of operation or within 1 year + 30 days of the previous change, whichever comes first;	
(b) Inspect air cleaner every 1,000 hours of operation or within 1 year + 30 days of the previous inspection, whichever comes first, and replace as necessary; and	
(c) Inspect all hoses and belts every 500 hours of operation or within 1 year + 30 days of the previous inspection, whichever comes first, and replace as necessary.	
Or utilize an oil analysis program as described in 40 CFR 63.6625(i).	
3. These sources must comply with the applicable emission limitations and operating limitations of 40 CFR Part 63, Subpart ZZZZ at all times.	40 CFR 63.6605(a)
4. At all times the Permittee must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require you to make any further efforts to reduce emissions if levels required by this standard have been achieved.	40 CFR 63.6605(b)
5. The Permittee must operate and maintain these units according to the manufacturer's emission-related written instructions or develop a	40 CFR 63.6625(e)

Federally Enforceable Provisos	Regulations
<p>maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.</p>	
<p>6. These sources must be equipped with a non-resettable hour meter.</p>	<p>40 CFR 63.6625(f)</p>
<p>7. During periods of startup, the facility must minimize the engines' time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engines, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup in Table 2c apply.</p>	<p>40 CFR 63.6625(h)</p>
<p>8. The sources must comply with the following requirements:</p>	
<p>(a) In order for the engine to be considered an emergency stationary RICE under the RICE MACT, any operation other than emergency operations, maintenance and testing, and operation in non-emergency situation for 50 hours per year is prohibited.</p>	<p>40 CFR 63.6640(f)</p>
<p>(b) If the engine is not operated according to the requirements in 40 CFR 63.6640(f)(1) through (3), the engine will not be considered an emergency engine under the RICE MACT and must meet all requirements for non-emergency engines.</p>	<p>40 CFR 63.6640(f)</p>
<p>(c) The emergency stationary RICE may operate for the purposes specified in 40 CFR 63.6640(f)(2)(i) for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed in 40 CFR 63.6640(f)(3) counts as part of the 100 hours per calendar year allowed.</p>	<p>40 CFR 63.6640(f)(2)</p>
<p>(d) Emergency stationary RICE located at a major source of HAP may be operated for up to 50 hours per calendar year in non-emergency situations.</p>	<p>40 CFR 63.6640(f)(3)</p>
<p>(1) The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing provided in 40 CFR 63.6640(f)(2).</p>	
<p>(2) The 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity.</p>	
<p><u>Compliance and Performance Test Methods and Procedures</u></p>	
<p>1. These sources must comply with the applicable emission limitations and operating limitations of 40 CFR Part 63, Subpart ZZZZ.</p>	<p>40 CFR 63.6605(a)</p>

Federally Enforceable Provisos	Regulations
<u>Emission Monitoring</u> <ol style="list-style-type: none"> 1. Provided that visible emissions, in excess of the opacity standards, are observed from the emergency engine at any time that the unit is operating, a visible emissions observation or visual inspection of the unit shall be conducted. 2. The facility shall comply with one of the following work or management practices to demonstrate continuous compliance with the RICE MACT for applicable engines: <ol style="list-style-type: none"> (a) Operate and maintain the stationary engine and after-treatment control device (if any) according to the manufacturer's emission-related written instructions, or (b) The facility may develop its own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions. 	<p>Rule 335-3-16-.05(c)</p> <p>40 CFR 63.6640(a) 40 CFR 63.6625(e), (e)(2) Table 6, RICE MACT</p>
<u>Recordkeeping and Reporting Requirements</u> <ol style="list-style-type: none"> 1. The Permittee must keep records of the maintenance conducted on these units in order to demonstrate that you operated and maintained the units and after-treatment control device (if any) according to your own maintenance plan or according to manufacturer's written instructions. 2. The Permittee must keep records of the hours of operation of each engine that is recorded through the non-resettable hour meter. The facility must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. 	<p>40 CFR 63.6655(e)</p> <p>40 CFR 63.6655(f)</p>

Phase II Acid Rain Permit

Issued by: Alabama Department of Environmental Management
Issued to: PowerSouth Energy Cooperative, Inc. - McIntosh Power Plant
Operated by: PowerSouth Energy Cooperative, Inc.
ORIS code: 7063
Effective: **Date**, 2025 through **Date**, 2030

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 permit application 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 application.
- 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:

		2023	2024	2025	2026	2027
Unit 1	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]	NA ²	NA ²	NA ²	NA ²	NA ²

		2023	2024	2025	2026	2027
Unit 2	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]	NA ²	NA ²	NA ²	NA ²	NA ²

2023

2024

2025

2026

2027

Unit 3	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]	NA ²	NA ²	NA ²	NA ²	NA ²

2023

2024

2025

2026

2027

Unit 4	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]	NA ²	NA ²	NA ²	NA ²	NA ²

2023

2024

2025

2026

2027

Unit 5	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]	NA ²	NA ²	NA ²	NA ²	NA 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 40 CFR Part 76 does not establish a NO_x emission rate for these units.

3) Comments, Notes and Justifications: Unit 1 is a 110 MW Natural Gas fired compressed air energy storage simple cycle combustion turbine. Units 2 and 3 are 113 MW natural gas and distillate fuel oil fired simple cycle combustion turbines. Units 4 and 5 are 170.5 MW natural gas fired simple cycle combustion turbines.

4) Permit Application: 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 add two (2) new combustion turbines and issued for public comment.	November 25, 1998
4. Permit finalized and re-issued.	January 28, 1999
5. Permit finalized and re-issued.	January 1, 2005
6. Permit finalized and re-issued.	June 25, 2008
7. Permit revised to add two (2) new combustion turbines and issued for public comment.	March 8, 2012
8. Permit finalized and re-issued.	April 24, 2012

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| 9. | Draft permit prepared and submitted for public review and comment. | February 1, 2013 |
| 10. | Permit finalized and re-issued. | March 21, 2013 |
| 11. | Draft permit prepared and submitted for public review and comment. | September 18, 2017 |
| 12. | Permit finalized and re-issued. | June 13, 2018 |
| 13. | Draft permit prepared and submitted for public review and comment. | Draft |
| 14. | Permit finalized and re-issued. | Draft |

Aubrey H. White III, Chief
Air Division

Draft

Date