



## MAJOR SOURCE OPERATING PERMIT

Permittee: **Decatur Energy Center, LLC**  
Facility Name: **Decatur Energy Center**  
Facility No.: 712-0079  
Location: Decatur, Morgan 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:

Effective Date:

Expiration Date:

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**ACID RAIN PERMIT**

.....**ATTACHED**

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<p><b>1. <u>Transfer</u></b></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><b>2. <u>Renewals</u></b></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><b>3. <u>Severability Clause</u></b></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><b>4. <u>Compliance</u></b></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</p>	<p>Rule 335-3-16-.05(f)</p> <p>Rule 335-3-16-.05(g)</p>

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<p style="text-align: center;">enforcement action that maintaining compliance with conditions of this permit would have required halting or reducing the permitted activity.</p> <p><b>5. <u>Termination for Cause</u></b></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><b>6. <u>Property Rights</u></b></p> <p>The issuance of this permit does not convey any property rights of any sort, or any exclusive privilege.</p> <p><b>7. <u>Submission of Information</u></b></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><b>8. <u>Economic Incentives, Marketable Permits, and Emissions Trading</u></b></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><b>9. <u>Certification of Truth, Accuracy, and Completeness:</u></b></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</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>

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<p>document are true, accurate and complete.</p> <p><b>10. <u>Inspection and Entry</u></b></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"> <li>(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;</li> <li>(b) Review and/or copy, at reasonable times, any records that must be kept pursuant to the conditions of this permit;</li> <li>(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;</li> <li>(d) Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or other applicable requirements.</li> </ul> <p><b>11. <u>Compliance Provisions</u></b></p> <ul style="list-style-type: none"> <li>(a) The permittee shall continue to comply with the applicable requirements with which the company has certified that it is already in compliance.</li> <li>(b) The permittee shall comply in a timely manner with applicable requirements that become effective during the term of this permit.</li> </ul> <p><b>12. <u>Compliance Certification</u></b></p> <p>A compliance certification shall be submitted yearly no later than February 28<sup>th</sup> 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 January 1<sup>st</sup> through</p>	<p>Rule 335-3-16-.07(b)</p> <p>Rule 335-3-16-.07(c)</p> <p>Rule 335-3-16-.07(e)</p>

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<p>December 31<sup>st</sup> of each year.</p> <p>(a) The compliance certification shall include the following:</p> <ol style="list-style-type: none"> <li>(1) The identification of each term or condition of this permit that is the basis of the certification;</li> <li>(2) The compliance status;</li> <li>(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);</li> <li>(4) Whether compliance has been continuous or intermittent;</li> <li>(5) Such other facts as the Department may require to determine the compliance status of the source;</li> </ol> <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><b>13. <u>Reopening for Cause</u></b></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</p>	<p>Rule 335-3-16-.13(5)</p>

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<p>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 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><b>14. <u>Additional Rules and Regulations</u></b></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><b>15. <u>Equipment Maintenance or Breakdown</u></b></p> <p>(a) 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> <p>(1) Identification of the specific facility to be taken out of service as well as its location and permit number;</p>	<p>§22-28-16(d), Code of Alabama 1975, as amended</p> <p>Rule 335-3-1-.07(1), (2)</p>



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feasible.	
<p><b>18. <u>Fugitive Dust</u></b></p> <p>(a) 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> <ol style="list-style-type: none"> <li>(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;</li> <li>(2) By reducing the speed of vehicular traffic to a point below that at which dust emissions are created;</li> <li>(3) By paving;</li> <li>(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;</li> </ol> <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>	Rule 335-3-4-.02
<p><b>19. <u>Additions and Revisions</u></b></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>	Rule 335-3-16-.13 and .14

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<p><b>20. <u>Recordkeeping Requirements</u></b></p> <p>(a) Records of required monitoring information of the source shall include the following:</p> <ul style="list-style-type: none"> <li>(1) The date, place, and time of all sampling or measurements;</li> <li>(2) The date analyses were performed;</li> <li>(3) The company or entity that performed the analyses;</li> <li>(4) The analytical techniques or methods used;</li> <li>(5) The results of all analyses; and</li> <li>(6) The operating conditions that existed at the time of sampling or measurement.</li> </ul> <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 the permit</p>	<p>Rule 335-3-16-.05(c)2</p>
<p><b>21. <u>Reporting Requirements</u></b></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>Rule 335-3-16-.05(c)3</p>



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<p><b>23. <u>Payment of Emission Fees</u></b></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><b>24. <u>Other Reporting and Testing Requirements</u></b></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><b>25. <u>Title VI Requirements (Refrigerants)</u></b></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>335-3-16-.05(a)</p>
<p><b>26. <u>Chemical Accidental Prevention Provisions</u></b></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>40 CFR Part 68</p>

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<p>(1) A compliance schedule for meeting the requirements of 40 CFR Part 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><b>27. <u>Display of Permit</u></b></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>	Rule 335-3-14-.01(1)(d)
<p><b>28. <u>Circumvention</u></b></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>	Rule 335-3-1-.10
<p><b>29. <u>Visible Emissions</u></b></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>	Rule 335-3-4-.01(1)
<p><b>30. <u>Fuel-Burning Equipment</u></b></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</p>	Rule 335-3-4-.03

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the emissions specified in Rule 335-3-5-.01.	Rule 335-3-5-.01
<p><b>31. <u>Process Industries – General</u></b></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>	Rule 335-3-4-.04
<p><b>32. <u>Averaging Time for Emission Limits</u></b></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><b>33. <u>Compliance Assurance Monitoring (CAM)</u></b></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><b>(a) <u>Operation of Approved Monitoring</u></b></p> <p>(1) <i>Commencement of operation.</i> 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) <i>Proper maintenance.</i> At all times, the owner or operator shall maintain the monitoring, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.</p> <p>(3) <i>Continued operation.</i> 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</p>	40 CFR 64.7

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<p>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) <i>Response to excursions or exceedances.</i> (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 standard, as applicable. (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>	

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<p>(5) <i>Documentation of need for improved monitoring.</i> 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>(b) Quality Improvement Plan (QIP) Requirements</b></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>(2) Elements of a QIP:</p> <ol style="list-style-type: none"> <li>a. The owner or operator shall maintain a written QIP, if required, and have it available for inspection.</li> <li>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</li> </ol>	<p>40 CFR 64.8</p>

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<p>include procedures for conducting one or more of the following actions, as appropriate:</p> <ul style="list-style-type: none"> <li>i. Improved preventive maintenance practices.</li> <li>ii. Process operation changes.</li> <li>iii. Appropriate improvements to control methods.</li> <li>iv. Other steps appropriate to correct control performance.</li> <li>v. More frequent or improved monitoring (only in conjunction with one or more steps under paragraphs (2)(b)(i) through (iv) above).</li> </ul> <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"> <li>a. Failed to address the cause of the control device performance problems; or</li> <li>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.</li> </ul> <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>	

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<p><b>(c) Reporting and Recordkeeping Requirements</b></p> <p>(1) <i>General reporting requirements</i></p> <p>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>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> <ul style="list-style-type: none"> <li>a. Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken;</li> <li>b. 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</li> <li>c. 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.</li> </ul> <p>(2) <i>General recordkeeping requirements</i></p> <ul style="list-style-type: none"> <li>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</li> </ul>	<p>40 CFR 64.9</p>

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<p>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><b>(b) Savings Provisions</b></p> <p>Nothing in this part shall:</p> <p>(1) 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>(2) Restrict or abrogate the authority of the Department to impose additional or more 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</p>	<p>40 CFR 64.10</p>

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<p>applicable.</p> <p>(3) 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><b>34. <u>Emissions Inventory Reporting Requirements</u></b></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><b>35. <u>Permit Shield</u></b></p> <p>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 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>	<p>Rule 335-3-16-.10</p>

## Summary Page for Combustion Turbine and Heat Recovery Steam Generator with Duct Burner and Selective Catalytic Reduction (SCR) (Pre-upgrade Configuration)

**Permitted Operating Schedule:** 8760 Hrs/yr

**Emission limitations:**

Emission Point #	Description	Pollutant	Emission limit (per CT)	Regulation
Stack #3	CT3 w/duct burner & SCR*	NO <sub>x</sub>	0.013 lb/MMBtu & 31.2 lb/hr  112 ppmvd at 15% O <sub>2</sub>	Rule 335-3-14-.04 (BACT)  40 CFR Part 60, Subpart GG
		CO <sup>1</sup>	0.1 lb/MMBtu & 232.0 lb/hr	Rule 335-3-14-.04 (BACT)
		CO <sup>2</sup>	0.117 lb/MMBtu & 156.0 lb/hr	Rule 335-3-14-.04 (BACT)
		VOCs	0.0131 lb/MMBtu & 30.0 lb/hr	Rule 335-3-14-.04 (BACT)
		PM	0.005 lb/MMBtu & 11.0 lb/hr	Rule 335-3-14-.04 (BACT)
		SO <sub>2</sub>	0.8 % S by weight in fuel	40 CFR Part 60, Subpart GG
		Opacity	10%	Rule 335-3-14-.04 (BACT)

*\*This section will no longer apply to CT3 and the associated duct burner upon completion of the turbine upgrade modifications to CT3.*

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<sup>1</sup> These limits are for times when power augmentation is in operation.

<sup>2</sup> These limits are for times when only the turbine is being operated.

## Provisos for Combustion Turbine and Heat Recovery Steam Generator with Duct Burner and Selective Catalytic Reduction (SCR) (Pre-Upgrade Configuration)

Federally Enforceable Provisos	Regulations
<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-.03
2. This source is 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 (BACT)
3. The duct burner is subject to the applicable requirements of 40 CFR Part 60, Subpart Da, “Standards of Performance for Electric Utility Steam Generating Units”. <i>CT3’s duct burner will no longer be subject to Subpart Da and the applicable requirements, including emissions limitations, of this subpart upon upgrade completion.</i>	Rule 335-3-10-.02(2)(a) 40 CFR 60.40Da(a)
4. The gas-fired turbine is subject to the applicable requirements of 40 CFR Part 60, Subpart GG, “Standards of Performance for Stationary Gas Turbines”. <i>CT3 will no longer be subject to Subpart GG and the applicable requirements, including emissions limitations, of this subpart upon upgrade completion.</i>	Rule 335-3-10-.02(33) 40 CFR 60.630(a)-(b)
5. The turbine (and duct burner) is subject to the applicable requirements of 40 CFR Part 60, Subpart A, “General Provisions”.	Rule 335-3-10-.02(1) 40 CFR 60.1(a)
6. This source is subject to the Acid Rain Rules contained in Rule 335-3-18 and 40 CFR Parts 72, 75, and 76. The applicable Acid Rain Permit is contained in the Acid Rain portion of this Operating Permit.	Rule 335-3-18 40 CFR Parts 72, 75, and 76
7. 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
8. 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

**Federally Enforceable Provisos****Regulations**Emission Standards

- |  |                          |
|--|--------------------------|
| 1. The nitrogen oxide (NO <sub>x</sub> ) emission rate from the combined turbine/duct burner stack shall not exceed 0.013 lb/MMBtu and 31.2 lb/hr. The nitrogen oxide emission rate shall be monitored using a rolling three-hour average computed by the continuous emission monitor system.  | Rule 335-3-14-.04 (BACT) |
| 2. The NO <sub>x</sub> emission rate from the combustion turbine shall not exceed 112 ppmvd at 15 percent O <sub>2</sub> .   | 40 CFR 60.332            |
| 3. The carbon monoxide (CO) emission rate from the combined turbine/duct burner stack during power augmentation shall not exceed 0.1 lb/MMBtu and 232.0 lb/hr. When firing the combustion turbine only, the carbon monoxide emission rate from the combined turbine/duct burner stack shall not exceed 0.117 lb/MMBtu and 156.0 lb/hr. | Rule 335-3-14-.04 (BACT) |
| 4. The volatile organic compound (VOC) emission rate from the combined turbine/duct burner stack shall not exceed 0.0131 lb/MMBtu and 30.0 lb/hr.  | Rule 335-3-14-.04 (BACT) |
| 5. The particulate matter (PM) emission rate from the combined turbine/duct burner stack shall not exceed 0.005 lb/MMBtu and 11.0 lb/hr.   | Rule 335-3-14-.04 (BACT) |
| 6. Visible emission from the combined turbine and duct burner stack shall not exceed 10% opacity.  | Rule 335-3-14-.04 (BACT) |
| 7. No owner or operator shall burn in any stationary gas turbine any fuel which contains sulfur in excess of 0.8 percent by weight.  | 40 CFR 60.333(b)         |
| 8. The SO <sub>2</sub> emissions from the duct burner shall not exceed 0.20 lb/MMBtu.  | 40 CFR 60.43Da(b)(2)     |
| 9. The NO <sub>x</sub> emissions from the duct burner shall not exceed 1.6 lb/MWh.   | 40 CFR 60.44Da(d)(1)     |
| 10. Exceptions to Emission Standards provisos 1-6 above are granted for startup, shutdown, load change, and maintenance as defined below:  | Rule 335-3-4-.01(c)      |

**Federally Enforceable Provisos****Regulations**

(a) Startup – Exemptions due to startup shall cease 35-minutes after the combustion turbine meets the Department approved start-up point based on megawatts and an average flue gas temperature exiting the catalyst. The Department must approve in writing any change to the start-up point prior to modifying such point.

(b) Shutdown – Exemptions due to shutdown shall commence upon initiation of shutdown or due to a failure of the unit.

(c) Load Change – Exemptions due to combustion turbine load change shall commence when the combustion turbine increases or decreases in load at a rate approved by the Department. The Department must approve in writing any change to the load rate point prior to modifying such point.

The Permittee shall take all reasonable actions to minimize the magnitude and duration of emissions during the periods listed above.

11. All emission limits (lb/MMBtu) are based on the Higher Heating Value (HHV).

Rule 335-3-14-.04  
(BACT)

12. The turbines and duct burners shall fire only natural gas.

Rule 335-3-14-.04  
(BACT)

13. Each duct burner shall not combust more than 600,000 MMBtu of natural gas in any consecutive 12-month period.

Rule 335-3-14-.04  
(BACT)

14. 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)

15. Except for periods of startup and shutdown, each turbine may operate at the lowest load for which the turbine has been verified by compliance tests to meet the emission standards in this section for carbon monoxide, nitrogen oxides, and volatile organic compounds, provided that the owner or operator has completed ambient air modeling using the stack parameters at that load that confirms that all ambient air standards would be met.

Rule 335-3-14-.04  
(BACT)

The Department must approve in writing any change to the lowest load of a turbine prior to operating at such load.

Compliance and Performance Test Methods and Procedures

**Federally Enforceable Provisos****Regulations**

- | <b>Federally Enforceable Provisos</b>  | <b>Regulations</b>   |
|--|--|
| <p>1. The continuous emissions monitor system (CEMS) required by Proviso 1 of the Emissions Monitoring section shall be used to determine compliance the NO<sub>x</sub> limits in Proviso 1 of the Emission Standards section.</p> <p>Method 20 of 40 CFR Part 60, Appendix A may also be used to determine the nitrogen oxides and oxygen concentrations.</p>   | Rule 335-3-14-.04 (BACT)<br>40 CFR 60.335(c)(3)<br>40 CFR 64.2(b)(1)(iv) |
| <p>2. The owner or operator shall determine compliance with the sulfur content standard in Proviso 8 of the Emission Standards Section as follows: ASTM D 1072-80 or 90 (Reapproved 1994), D 3031-81, D 4084-82 or 94, or D 3246-81, 92, or 96, or the latest editions, or in accordance with approved 40 CFR 75 methods shall be used for the sulfur content of gaseous fuels. The applicable ranges of some ASTM methods mentioned above are not adequate to measure the levels of sulfur in some fuel gases. Dilution of samples before analysis (with verification of the dilution ratio) may be used, subject to the approval of the Administrator.</p> | 40 CFR 60.335(d)   |
| <p>3. Method 9 of 40 CFR Part 60, Appendix A shall be used to determine the opacity from the combined turbine and duct burner stack.</p>   | Rule 335-3-1-.05(1)  |
| <p>4. Method 10 of 40 CFR Part 60, Appendix A shall be used to determine the carbon monoxide emissions from the combined turbine and duct burner stack.</p>  | Rule 335-3-1-.05(1)  |
| <p>5. Method 5 or 17 of 40 CFR Part 60, Appendix A shall be used to determine the particulate matter emissions from the combined turbine and duct burner stack.</p>  | Rule 335-3-1-.05(1)  |
| <p>6. Method 25, 25A, or 25B of 40 CFR Part 60, Appendix A shall be used to determine the volatile organic compounds emissions from the combined turbine and duct burner stacks.</p>   | Rule 335-3-1-.05(1)  |
| <p>7. Any performance tests required shall be conducted and data reduced in accordance with the test methods and procedures contained in each specific permit condition unless the Director (1) specifies or approves, in specific cases, the use of a reference method with minor changes in methodology, (2) approves the use of an equivalent method, or (3) approves the use of an alternative method, the results of which he has determined to be adequate for indicating whether a specific source is in compliance.</p>  | Rule 335-3-1-.05(1)  |

Emission Monitoring

**Federally Enforceable Provisos****Regulations**

1. The continuous emissions monitoring system (CEMS) to measure nitrogen oxide emissions shall continue to be operated at a location approved by the Director. The nitrogen oxide emission rate shall be monitored using a rolling three-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.

Rule 335-3-14-.04  
(BACT)  
40 CFR Part 75

Recordkeeping and Reporting Requirements

1. An excess emissions report for the combined turbine/duct burner stack as defined by 40 CFR Part 60, Subpart A, §60.7(c) and (d), will be submitted to the ADEM within 30 days of the end of each calendar quarter in the following format:

Rule 335-3-16-.05(c)  
40 CFR 64.9

NOx:

(A) Source Operating Time (all times and periods in hours)

(B) Time Monitoring System was Able to Record Source Performance\*

(C) Monitor Availability (%) =  $B/A \times 100$

(D) Total Emissions Periods where the Monitoring System determines emissions are above standards\*\*

(E) Overall Source Performance (%) =  $[(B - D) / B] \times 100$

(F) Exempt Periods (as applicable)- F (x)

(1) F 1 = Startup/Shutdown

(2) F 2 = Load Change

(G) Net Excess Emissions =  $D - \sum F(x)$

(H) Net Source Performance (%):

=  $[ 1 - (G/(B-\sum F(x))) ] \times 100$

=  $[ (B - \sum F(x) - G) / (B - \sum F(x)) ] \times 100$

(I) Overall Exceedances (%) - Percent of time above the standard due to all reasons:

**Federally Enforceable Provisos**

**Regulations**

= (D /B) x 100

(J) Net Exceedances (%) - Percent of time above the standard due to non-exempt reasons:

= [ (D - ΣF(x)) / B ] x 100

(K) Exempt Period Exceedances (%) - Percent of time above the standard due to an exempted reason

SU/SD = (F1 / B) x 100

Load Change = (F2 / B) x 100

\* 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.

\*\* Report date, time, duration, magnitude, cause and corrective action taken for each occurrence.

NOTE: Data recorded during periods of system breakdowns, repairs, adjustments, and calibration checks shall not be included in any of the above data averages.

NOTE: Equations used to convert Monitoring System data as monitored to the required reporting standard will be provided with the first quarter report of each calendar year.

Acid Rain Requirements

- 1. These units are subject to the Acid Rain rules contained in 40 CFR Parts 72 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 and 75

CSAPR Requirements

- 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<sub>2</sub> Group 2 Trading Program requirements.
- 2. These units are subject to the applicable provisions of the Cross-State Air Pollution Rule (CSAPR) to include all applicable provisions of the NO<sub>x</sub> Annual Trading Program requirements.

Rules 335-3-5-.06 through 335-3-5-.36  
  
Rules 335-3-8-.06 through 335-3-8-.70

## Summary Page for Combustion Turbines and Heat Recovery Steam Generators with Duct Burners and Selective Catalytic Reduction (SCR) (Post-upgrade Configuration)

**Permitted Operating Schedule:** 8760 Hrs/yr

**Emission limitations:**

Emission Point #	Description	Pollutant	Emission limit (per CT)	Regulation
Stacks #1 & #2*	CT1 & CT2, each w/duct burner & SCR*	NO <sub>x</sub>	0.013 lb/MMBtu & 31.2 lb/hr	Rule 335-3-14-.04 (BACT)
		NO <sub>x</sub>	15 ppm (at 15% O <sub>2</sub> ) or 0.43 lb/MWh of useful output	
		CO <sup>3</sup>	0.1 lb/MMBtu & 232.0 lb/hr	Rule 335-3-14-.04 (BACT)
		CO <sup>4</sup>	0.117 lb/MMBtu & 156.0 lb/hr	Rule 335-3-14-.04 (BACT)
		VOCs	0.0131 lb/MMBtu & 30.0 lb/hr	Rule 335-3-14-.04 (BACT)
		PM	0.005 lb/MMBtu & 11.0 lb/hr	Rule 335-3-14-.04 (BACT)
		SO <sub>2</sub>	26ng SO <sub>2</sub> /J heat input (0.060 lb/MMBtu)	40 CFR 60.4330(a)(2)
		Opacity	10%	Rule 335-3-14-.04 BACT

*\*This section will apply to CT3 and the associated duct burner upon completion of the turbine upgrade modifications to CT3.*

<sup>3</sup> These limits are for times when power augmentation is in operation.

<sup>4</sup> These limits are for times when only the turbine is being operated.

**Provisos for Combustion Turbines and Heat Recovery Steam  
Generators with Duct Burners and Selective Catalytic  
Reduction (SCR) (Post-upgrade Configuration)**

<b>Federally Enforceable Provisos</b>	<b>Regulations</b>
<u>Applicability</u>	
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-.03
2. These sources 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 BACT
3. CT1 and CT2 and the associated duct burners are subject to the applicable requirements of 40 CFR Part 60, Subpart KKKK. “Standards of Performance for Stationary Combustion Turbines”. CT3 and the associated duct burner will be subject to Subpart KKKK upon upgrade completion.	Rule 335-3-10-.02(89) 40 CFR 60.4305(a)
4. The turbines and duct burners are subject to the applicable requirements of 40 CFR Part 60, Subpart A, “General Provisions”.	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 Parts 72, 75, and 76. The applicable Acid Rain Permit is contained in the Acid Rain portion of this Operating Permit.	Rule 335-3-18 40 CFR Parts 72, 75, and 76
6. 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
7. 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
<u>Emission Standards</u>	

Federally Enforceable Provisos	Regulations
1. The nitrogen oxide (NO <sub>x</sub> ) emission rate from each combined turbine/duct burner stack shall not exceed 0.013 lb/MMBtu and 31.2 lb/hr. The NO <sub>x</sub> emission rate shall be monitored using a rolling three-hour average computed by the continuous emission monitor system.	Rule 335-3-14-.04 (BACT)
2. The NO <sub>x</sub> emission rate from each turbine stack shall not exceed 15 ppm (at 15% O <sub>2</sub> ) or 0.43 lb/MWh of useful output. These limits apply on a 30-day rolling average basis.	40 CFR 60.4320(a) Subpart KKKK, Table 1
3. The carbon monoxide (CO) emission rate from each combined turbine/duct burner stack during power augmentation shall not exceed 0.1 lb/MMBtu and 232.0 lb/hr. When firing the combustion turbine only, the CO emission rate from each combined turbine/duct burner stack shall not exceed 0.117 lb/MMBtu and 156.0 lb/hr.	Rule 335-3-14-.04 (BACT)
4. The volatile organic compound emission rate from each combined turbine/duct burner stack shall not exceed 0.0131 lb/MMBtu and 30.0 lb/hr.	Rule 335-3-14-.04 (BACT)
5. The particulate matter emission rate from each combined turbine/duct burner stack shall not exceed 0.005 lb/MMBtu and 11.0 lb/hr.	Rule 335-3-14-.04 (BACT)
6. Visible emission from the combined turbine and duct burner stack shall not exceed 10% opacity.	Rule 335-3-14-.04 (BACT)
7. The permittee must not burn any fuel in the turbines which contains total potential sulfur emissions in excess of 26ng SO <sub>2</sub> /J (0.060 lb/MMBtu) heat input.	40 CFR 60.4330(a)(2)

**Federally Enforceable Provisos**

**Regulations**

<p>8. Exceptions to Emission Standards provisos 1-6 above are granted for startup, shutdown, load change, and maintenance as defined below:</p> <ul style="list-style-type: none"><li>(a) Startup – Exemptions due to startup shall cease 35-minutes after the combustion turbine meets the Department approved start-up point based on megawatts and an average flue gas temperature exiting the catalyst. The Department must approve in writing any change to the start-up point prior to modifying such point.</li><li>(b) Shutdown – Exemptions due to shutdown shall commence upon initiation of shutdown or due to a failure of the unit.</li><li>(c) Load Change – Exemptions due to combustion turbine load change shall commence when the combustion turbine increases or decreases in load at a rate approved by the Department. The Department must approve in writing any change to the load rate point prior to modifying such point.</li></ul>	<p>Rule 335-3-4-.01(c)</p>
<p>The permittee shall take all reasonable actions to minimize the magnitude and duration of emissions during the periods listed above.</p>	<p>Rule 335-3-4-.01(c)</p>
<p>9. All emission limits (lb/MMBtu) are based on the Higher Heating Value (HHV).</p>	<p>Rule 335-3-14-.04 (BACT)</p>
<p>10. The turbines and duct burners shall fire only natural gas.</p>	<p>Rule 335-3-14-.04 (BACT)</p>
<p>11. Each duct burner shall not combust more than 600,000 MMBtu of natural gas in any consecutive 12-month period.</p>	<p>Rule 335-3-14-.04 (BACT)</p>
<p>12. Emissions exceeding any allowances that the source lawfully holds under Title IV of the Act or the regulations promulgated thereunder are prohibited.</p>	<p>Rule 335-3-16-.05(d)</p>

**Federally Enforceable Provisos****Regulations**

13. Except for periods of startup and shutdown, each turbine may operate at the lowest load for which the turbine has been verified by compliance tests to meet the emission standards in this section for carbon monoxide, nitrogen oxides and volatile organic compounds, provided that the owner or operator has completed ambient air modeling using the stack parameters at that load that confirms that all ambient air standards would be met.

The Department must approve in writing any change to the lowest load of a turbine prior to operating at such load.

Compliance and Performance Test Methods and Procedures

1. The continuous emissions monitor system (CEMS) required by Proviso 1 of the Emissions Monitoring section shall be used to determine compliance with the NOx limits in Proviso 1 of the Emission Standards section. Method 20 of 40 CFR Part 60, Appendix A may also be used to determine the nitrogen oxides and oxygen concentrations.

2. The Permittee must monitor the total sulfur content of the fuel being fired in the turbine, except as provided in § 60.4365. The sulfur content of the fuel must be determined using total sulfur methods described in § 60.4415. Alternatively, if the total sulfur content of the gaseous fuel during the most recent performance test was less than half the applicable limit, ASTM D4084, D4810, D5504, or D6228, or Gas Processors Association Standard 2377 (all of which are incorporated by reference, see § 60.17), which measure the major sulfur compounds, may be used.

Alternatively, the owner or operator may elect not to monitor the total sulfur content of the fuel combusted in the turbine using the above methods, if the fuel is demonstrated to not exceed potential sulfur emissions of 26 ng SO<sub>2</sub>/J (0.060 lb SO<sub>2</sub>/MMBtu) heat input using the fuel quality characteristics in a current, valid purchase contract, tariff sheet or transportation contract for the fuel, specifying that the total sulfur content for natural gas use in continental areas is 20 grains of sulfur or less per 100 standard cubic feet. Records of the required documentation shall be maintained on site and provided to the Department upon request.

3. Method 9 of 40 CFR Part 60, Appendix A shall be used to determine the opacity from the combined turbine and duct burner stacks.

Rule 335-3-14-.04  
(BACT)

Rule 335-3-14-.04  
(BACT)  
40 CFR 64.2(b)(1)(iv)

40 CFR 60.4360

40 CFR 60.4365

Rule 335-3-1-.05(1)

Federally Enforceable Provisos	Regulations
4. Method 10 of 40 CFR Part 60, Appendix A shall be used to determine the carbon monoxide emissions from the combined turbine and duct burner stacks.	Rule 335-3-1-.05(1)
5. Method 5 or 17 of 40 CFR Part 60, Appendix A shall be used to determine the particulate matter emissions from the combined turbine and duct burner stacks.	Rule 335-3-1-.05(1)
6. Method 25, 25A, or 25B of 40 CFR Part 60, Appendix A shall be used to determine the volatile organic compounds emissions from the combined turbine and duct burner stacks.	Rule 335-3-1-.05(1)
7. Any performance tests required shall be conducted and data reduced in accordance with the test methods and procedures contained in each specific permit condition unless the Director (1) specifies or approves, in specific cases, the use of a reference method with minor changes in methodology, (2) approves the use of an equivalent method, or (3) approves the use of an alternative method, the results of which he has determined to be adequate for indicating whether a specific source is in compliance.	Rule 335-3-1-.05(1)
8. The Permittee must operate and maintain your stationary combustion turbine, 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
<u>Emission Monitoring</u>	
1. The continuous emissions monitoring system (CEMS) to measure nitrogen oxide emissions shall continue to be operated at a location approved by the Director. The nitrogen oxide emission rate shall be monitored using a rolling three-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.	Rule 335-3-14-.04 (BACT) 40 CFR Part 75
2. A NO <sub>x</sub> diluent CEMS that is installed and certified according to Appendix A of 40 CFR Part 75 is acceptable for use under 40 CFR Part 60, Subpart KKKK. The relative accuracy test audit (RATA) of the CEMS shall be performed on a lb/MMBtu basis.	40 CFR 60.4345(a)

**Federally Enforceable Provisos****Regulations**

3. For purposes of demonstrating compliance with the sulfur content of the fuel pursuant in Proviso 7 of the Emission Standards Section, the owner or operator may use one of the following options:

(a) Maintain a current, valid fuel purchase contract, tariff sheet, or transportation contract for the natural gas specifying the maximum total sulfur content is less than 20 grains sulfur per 100 scf and has potential sulfur emissions of less than less than 26 ng SO<sub>2</sub>/J (0.060 lb SO<sub>2</sub>/MMBtu) heat input;

40 CFR 60.4365(a)

(b) Conduct daily sampling of the natural gas sulfur content for the first 30 unit operating days following the change and annually thereafter to show the actual fuel sulfur content is less than 10 grains sulfur per 100 scf; or

40 CFR 60.4370(c)(1)(i)

(c) Conduct representative fuel sampling using the procedures in Sections 2.3.6 of Appendix D to 40 CFR Part 75.

40 CFR 60.4370(c)(2)

Recordkeeping and Reporting Requirements

1. An excess emissions report for the combined turbine/duct burner stack as defined by 40 CFR Part 60, Subpart A, §60.7(c) and (d), will be submitted to the ADEM within 30 days of the end of each calendar quarter in the following format:

Rule 335-3-16-.05(c)

40 CFR 64.9

NOx:

(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 Emissions Periods where the Monitoring System determines emissions are above standards\*\*

(E) Overall Source Performance (%) = [(B - D) / B] x 100

(F) Exempt Periods (as applicable)- F (x)

(1) F 1 = Startup/Shutdown

(2) F 2 = Load Change

(G) Net Excess Emissions = D - ΣF(x)

**Federally Enforceable Provisos****Regulations**

(H) Net Source Performance (%):

$$= [ 1 - (G / (B - \sum F(x))) ] \times 100$$

$$= [ (B - \sum F(x) - G) / (B - \sum F(x)) ] \times 100$$

(I) Overall Exceedances (%) - Percent of time above the standard due to all reasons:

$$= (D / B) \times 100$$

(J) Net Exceedances (%) - Percent of time above the standard due to non-exempt reasons:

$$= [ (D - \sum F(x)) / B ] \times 100$$

(K) Exempt Period Exceedances (%) - Percent of time above the standard due to an exempted reason

$$SU/SD = (F1 / B) \times 100$$

$$\text{Load Change} = (F2 / B) \times 100$$

\* 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.

\*\* Report date, time, duration, magnitude, cause and corrective action taken for each occurrence.

NOTE: Data recorded during periods of system breakdowns, repairs, adjustments, and calibration checks shall not be included in any of the above data averages.

NOTE: Equations used to convert Monitoring System data as monitored to the required reporting standard will be provided with the first quarter report of each calendar year.

2. For each affected unit required to continuously monitor parameters or emissions, or to periodically determine the fuel sulfur content under 40 CFR Part 60, Subpart KKKK, you must submit reports of excess emissions and monitor downtime, in accordance with §60.7(c). Excess emissions must be reported for all periods of unit operation, including start-up, shutdown, and malfunction.

40 CFR 60.4375

3. All reports required under §60.7(c) must be postmarked by the

40 CFR 60.4395

**Federally Enforceable Provisos**

**Regulations**

30th day following the end of each 6-month period.

Acid Rain Requirements

1. These units are subject to the Acid Rain rules contained in 40 CFR Parts 72 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 and 75

CSAPR Requirements

1. These units are subject to the applicable provisions of Cross-State Air Pollution Rule(CSAPR) to include all applicable provisions of the SO<sub>2</sub> Group 2 Trading Program requirements.
2. These units are subject to the applicable provisions of Cross-State Air Pollution Rule(CSAPR) to include all applicable provisions of the NOx Annual Trading Program requirements.

Rules 335-3-5-.06 through 335-3-5-.36  
  
Rules 335-3-8-.06 through 335-3-8-.70

## Summary Page for MACT Subpart ZZZZ – Existing Emergency Firewater Pump

**Permitted**

**Operating Schedule:** 24 Hrs/day x 7 Days/week x 52 Weeks/yr = 8760 Hrs/yr

**Emission limitations:**

<b>Emission Point #</b>	<b>Description</b>	<b>Pollutant</b>	<b>Emission limit</b>	<b>Regulation</b>
EP004	150 HP Existing Diesel Fired Firewater Pump	PM	N/A	N/A
EP004	150 HP Existing Diesel Fired Firewater Pump	SO <sub>2</sub>	N/A	N/A
EP004	150 HP Existing Diesel Fired Firewater Pump	NO <sub>x</sub>	N/A	N/A
EP004	150 HP Existing Diesel Fired Firewater Pump	CO	N/A	N/A
EP004	150 HP Existing Diesel Fired Firewater Pump	VOC	N/A	N/A
EP004	150 HP Existing Diesel Fired Firewater Pump	HAPs	Work Practice Standards	Table 2c, 40 CFR Part 63, Subpart ZZZZ
EP004	150 HP Existing Diesel Fired Firewater Pump	Opacity	See General Provisos	Rule 335-3-4-.01(1)

## Provisos for MACT Subpart ZZZZ – Existing Emergency Firewater Pump

Federally Enforceable Provisos	Regulations
<u>Applicability</u>	
1. This source is subject to the applicable requirements of ADEM Admin. Code r. 335-3-16-.03, “Major Source Operating Permits”.	Rule 335-3-16-.03
2. This source is subject to the applicable requirements of ADEM Admin. Code r. 335-3-4-.01, “Control of Particulate Emissions – Visible Emissions”.	Rule 335-3-4-.01
3. This source is 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)”.	Rule 335-3-11-.06(103) 40 CFR 63.6585
4. This source is subject to the applicable requirements of 40 CFR Part 63, Subpart A, "General Provisions" as listed in Table 8 of Subpart ZZZZ.	Rule 335-3-11-.06(1) 40 CFR 63.6665
<u>Emission Standards</u>	
1. This source shall comply with the opacity standards as listed in General Permit Proviso No. 29.	Rule 335-3-4-.01(1)
2. This source is subject to the applicable requirements listed in Table 2c of 40 CFR 63 Subpart ZZZZ—National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines.	40 CFR 63.6602
3. The Permittee must operate and maintain this unit according to the manufacturer's emission-related written instructions or develop a maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.	40 CFR 63.6625(e)(2)
4. The firewater pump shall be equipped with a non-resettable hour meter.	40 CFR 63.6625(f)
5. This unit may be operated for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of these units are limited to 100 hours per year. There	40 CFR 63.6640(f)(1)

**Federally Enforceable Provisos**

**Regulations**

is no time limit on the use of these units in emergency situations. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency ICE beyond 100 hours per year . This unit may operate up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply non-emergency power as part of a financial arrangement with another entity. Any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as permitted in 40 CFR Part 63, Subpart ZZZZ, is prohibited.

Compliance and Performance Test Methods and Procedures

- 1. Method 9 of 40 CFR Part 60, Appendix A shall be used in the determination of opacity.

Rule 335-3-1-.05

Emission Monitoring

- 1. The Permittee shall perform the following activities:
  - (a) Change oil and filter every 500 hours of operation or annually, whichever comes first;
  - (b) Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first;
  - (c) Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

40 CFR 63. 6625(i) & (j)

40 CFR Part 63,  
Subpart ZZZZ,  
Table 2c (Nos. 1 & 6)

Or utilize an oil analysis program as described in §63.6625(i) or §63.6625(j).

**Federally Enforceable Provisos****Regulations**

2. If an oil analysis program is utilized for a stationary compression ignition engine, the Permittee must perform the oil analysis at the same frequency specified above for changing the oil. The Permittee must at a minimum analyze the following parameters: Total Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30 percent of the Total Base Number of the oil when new, viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new, or percent water content (by volume) is greater than 0.5. If any of the limits are exceeded, the Permittee must change the oil within 2 business days of receiving the results of the analysis or before commencing operation, whichever is later.

40 CFR 63.6625(i)

**Recordkeeping and Reporting Requirements**

1. The Permittee must keep records of the parameters that are analyzed as part of the oil analysis program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine.

40 CFR 63.6625(i) &amp; (j)

2. The Permittee must keep records of the maintenance conducted on this unit in order to demonstrate that you operated and maintained this unit and after-treatment control device (if any) according to your own maintenance plan.

40 CFR 63.6655(e)

3. 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. If the engine is used for demand response operation, the owner or operator must keep records of the notification of the emergency situation, and the time the engine was operated as part of demand response.

40 CFR 63.6655(f)

# Phase II Acid Rain Permit

Issued by: Alabama Department of Environmental Management  
Issued to: Decatur Energy Center  
Operated by: Capitol Power Corporation  
ORIS Code: 55292  
Effective: January 25, 2021 through January 24, 2026

## Acid Rain Permit Contents

- 1) Statement of Basis
- 2) SO<sub>2</sub> allowances allocated under this permit and NO<sub>x</sub> 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 submitted for this source. The owners and operators of the source must comply with the standard requirements and special provisions set forth in the Phase II Permit 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) SO<sub>2</sub> Allowance Allocations and NO<sub>x</sub> Requirements for each affected unit:**

		2021	2022	2023	2024	2025
CTG-1	SO <sub>2</sub> allowances, under 40 CFR part 73 [tons]	NA <sup>1</sup>				
	NO <sub>x</sub> limit [lb/MMBtu]	∞ <sup>2</sup>				

		2021	2022	2023	2024	2025
CTG-2	SO <sub>2</sub> allowances, under 40 CFR part 73 [tons]	NA <sup>1</sup>				
	NO <sub>x</sub> limit [lb/MMBtu]	∞ <sup>2</sup>				

		2021	2022	2023	2024	2024
CTG-3	SO <sub>2</sub> allowances, under 40 CFR part 73 [tons]	NA <sup>1</sup>				
	NO <sub>x</sub> limit [lb/MMBtu]	∞ <sup>2</sup>				

- 1 Currently there are no SO<sub>2</sub> allowances allocated to these units by the U.S. EPA. 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 SO<sub>2</sub> allowance allocations identified in this permit [See 40 CFR 72.84].
- 2 40 CFR Part 76 does not establish a NO<sub>x</sub> emission rate for Combined Cycle Combustion Turbine Units CTG-1, CTG-2, and CTG-3.

**3) Comments, Notes, and Justifications:** This facility consists of three combined cycle 205 MW Natural Gas Fired Combustion Turbines each with a Natural Gas Fired 400 MMBtu/hr Duct Burner and Heat Recovery Steam Generator. The Heat Recovery Steam Generators have the capability to supply steam to a nearby industrial facility and a 276 MW steam turbine.

It should be noted that the compliance certification report shall cover each calendar year in which year the unit is subject to an Acid Rain limitation.

**4) Phase II Permit Application:** Attached.

**5) Summary of Previous Actions and Current Action:**

<b>Action</b>	<b>Date</b>
1. Draft permit prepared and submitted for public review and comment.	December 29, 2000
2. Permit finalized and issued.	February 2, 2001
3. Permit re-issued for ownership change.	October 3, 2001
4. Draft permit renewal prepared and submitted for public review and comment.	March 23, 2006
5. Renewal permit finalized and issued.	May 8, 2006
6. Draft permit prepared and submitted for public review and comment.	December 10, 2010
7. Permit finalized and re-issued.	January 25, 2011
8. Draft permit prepared and submitted for public review and comment.	October 19, 2015
9. Permit finalized and re-issued.	December 4, 2015
10. Draft permit prepared and submitted for public review and comment.	TBD
11. Permit finalized and re-issued.	TBD

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Ronald W. Gore, Chief  
Air Division

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Date

