



MAJOR SOURCE OPERATING PERMIT

Permittee: **Alabama Power Company**
Facility Name: **Washington County Cogeneration Plant**
Facility No.: 108-0018
Location: McIntosh, Washington County, Alabama

In accordance with and subject to the provisions of the Alabama Air Pollution Control Act of 1971, as amended, Ala. Code 1975, §§22-28-1 to 22-28-23 (2006 Rplc. Vol. and 2007 Cum. Supp.) (the "AAPCA") and the Alabama Environmental Management Act, as amended, Ala. Code 1975, §§22-22A-1 to 22-22A-15, (2006 Rplc. Vol. and 2007 Cum. Supp.) and rules and regulations adopted thereunder, 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*

TABLE OF CONTENTS

GENERAL PERMIT PROVISOS3

**SUMMARY PAGE FOR 100 MW NATURAL GAS FIRED COMBUSTION TURBINE W/
NATURAL GAS/HYDROGEN FIRED 260 MMBTU/HR DUCT BURNER AND HEAT
RECOVERY STEAM GENERATOR..... 22**

**PROVISOS FOR 100 MW NATURAL GAS FIRED COMBUSTION TURBINE W/
NATURAL GAS/HYDROGEN FIRED 260 MMBTU/HR DUCT BURNER AND HEAT
RECOVERY STEAM GENERATOR..... 23**

Applicability..... 23

Emission Standards 23

Compliance and Performance Test Methods and Procedures..... 25

Emission Monitoring 25

Recordkeeping and Reporting Requirements..... 25

Acid Rain Requirements..... 27

**SUMMARY PAGE FOR 274 MMBTU/HR NATURAL GAS /HYDROGEN FIRED
BOILER W/ FGR..... 28**

**PROVISOS FOR 274 MMBTU/HR NATURAL GAS / HYDROGEN FIRED BOILER W/
FGR..... 29**

Emission Standards 29

Compliance and Performance Test Methods and Procedures..... 29

Emission Monitoring 29

Recordkeeping and Reporting Requirements..... 30

**SUMMARY PAGE FOR TWO (2) 184 MMBTU/HR NATURAL GAS /HYDROGEN
FIRED BOILERS 31**

Applicability..... 32

Emission Standards 32

Compliance and Performance Test Methods and Procedures..... 33

Emission Monitoring 33

Recordkeeping and Reporting Requirements..... 33

COMPLIANCE ASSURANCE MONITORING (CAM) ATTACHED

ACID RAIN PERMIT.....ATTACHED

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>	Rule 335-3-16-.02(6)
<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>	Rule 335-3-16-.12(2)
<p>3. <u>Severability Clause</u></p> <p>The provisions of this permit are declared to be severable and if any section, paragraph, subparagraph, subdivision, clause, or phrase of this permit shall be adjudged to be invalid or unconstitutional by any court of competent jurisdiction, the judgment shall not affect, impair, or invalidate the remainder of this permit, but shall be confined in its operation to the section, paragraph, subparagraph, subdivisions, clause, or phrase of this permit that shall be directly involved in the controversy in which such judgment shall have been rendered.</p>	Rule 335-3-16-.05(e)
<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>

General Permit Provisos

Federally Enforceable Provisos	Regulations
<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>	Rule 335-3-16-.05(h)
<p>6. <u>Property Rights</u></p> <p>The issuance of this permit does not convey any property rights of any sort, or any exclusive privilege.</p>	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>	

General Permit Provisos

Federally Enforceable Provisos	Regulations
<p>(2) The compliance status;</p> <p>(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);</p> <p>(4) Whether the method(s) or other means used to assure compliance provided continuous or intermittent data;</p> <p>(5) Such other facts as the Department may require to determine the compliance status of the source;</p> <p>(b) The compliance certification shall be submitted to:</p> <p style="text-align: center;">Alabama Department of Environmental Management Air Division P.O. Box 301463 Montgomery, AL 36130-1463</p> <p style="text-align: center;">and to:</p> <p style="text-align: center;">Air and EPCRA Enforcement Branch EPA Region IV 61 Forsyth Street, SW Atlanta, GA 30303</p>	
<p>13. <u>Reopening for Cause</u></p> <p>Under any of the following circumstances, this permit will be reopened prior to the expiration of the permit:</p> <p>(a) Additional applicable requirements under the Clean Air Act of 1990 become applicable to the permittee with a remaining permit term of three (3) or more years. Such a reopening shall be completed not later than eighteen (18) months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which this permit is due to expire.</p> <p>(b) Additional requirements (including excess emissions requirements) become applicable to an affected source under the acid rain program. Upon approval</p>	<p>Rule 335-3-16-.13(5)</p>

General Permit Provisos

Federally Enforceable Provisos	Regulations
<p>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>14. <u>Additional Rules and Regulations</u></p> <p>This permit is issued on the basis of Rules and Regulations existing on the date of issuance. In the event additional Rules and Regulations are adopted, it shall be the permit holder's responsibility to comply with such rules.</p>	<p>§22-28-16(d), <u>Code of Alabama 1975</u>, as amended</p>
<p>15. <u>Equipment Maintenance or Breakdown</u></p> <p>(a) Unless otherwise specified in the unit-specific provisos of this permit, in the case of shutdown of air pollution control equipment (which operates pursuant to any permit issued by the Director) for necessary scheduled maintenance, the intent to shut down such equipment shall be reported to the Director at least twenty-four (24) hours prior to the planned shutdown, unless such shutdown is accompanied by the shutdown of the source which such equipment is intended to control. Such prior notice shall include, but is not limited to the following:</p> <p>(1) Identification of the specific facility to be taken out of service as well as its location and permit number;</p> <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</p>	<p>Rule 335-3-1-.07(1),(2)</p>

General Permit Provisos

Federally Enforceable Provisos	Regulations
<p>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 will be notified when the breakdown has been corrected.</p>	
<p>16. <u>Operation of Capture and Control Devices</u></p> <p>Unless otherwise specified in the unit-specific provisos of this permit, all air pollution control devices and capture systems for which this permit is issued shall be maintained and operated at all times in a manner so as to minimize the emissions of air contaminants. Procedures for ensuring that the above equipment is properly operated and maintained so as to minimize the emission of air contaminants shall be established.</p>	<p>§22-28-16(d), <u>Code of Alabama 1975</u>, as amended</p>
<p>17. <u>Obnoxious Odors</u></p> <p>This permit is issued with the condition that, should obnoxious odors arising from the plant operations be verified by Air Division inspectors, measures to abate the odorous emissions shall be taken upon a determination by the Alabama Department of Environmental Management that these measures are technically and economically feasible.</p>	<p>Rule 335-3-1-.08</p>
<p>18. <u>Fugitive Dust</u></p> <p>(a) Reasonable precautions shall be taken to prevent fugitive dust emanating from plant roads, grounds, stockpiles, screens, dryers, hoppers, ductwork, etc.</p> <p>(b) Plant or haul roads and grounds will be maintained in the following manner so that dust will not become</p>	<p>Rule 335-3-4-.02</p>

General Permit Provisos

Federally Enforceable Provisos	Regulations
<p>(2) The date analyses were performed;</p> <p>(3) The company or entity that performed the analyses;</p> <p>(4) The analytical techniques or methods used;</p> <p>(5) The results of all analyses; and</p> <p>(6) The operating conditions that existed at the time of sampling or measurement.</p> <p>(b) Retention of records of all required monitoring data and support information of the source for a period of at least 5 years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation and copies of all reports required by the permit.</p>	
<p>21. <u>Reporting Requirements</u></p> <p>(a) Reports to the Department of any required monitoring shall be submitted at least every 6 months. All instances of deviations from permit requirements must be clearly identified in said reports. All required reports must be certified by a responsible official consistent with Rule 335-3-16-.04(9).</p> <p>(b) Deviations from permit requirements shall be reported within 48 hours or 2 working days of such deviations, including those attributable to upset conditions as defined in the permit. The report will include the probable cause of said deviations, and any corrective actions or preventive measures that were taken.</p>	<p>Rule 335-3-16-.05(c)3</p>
<p>22. <u>Emission Testing Requirements</u></p> <p>(a) 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</p>	<p>Rule 335-3-1-.05(3) and Rule 335-3-1-.04(1)</p>

General Permit Provisos

Federally Enforceable Provisos	Regulations
<p>same may be amended or revised.</p> <p>(b) 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>(c) 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 requires 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>(d) 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>(e) All test reports must be submitted to the Air Division within 30 days of the actual completion of the test unless an extension of time is specifically approved by the Air Division.</p>	<p>Rule 335-3-1-.04</p> <p>Rule 335-3-1-.04</p>
<p>23. <u>Payment of Emission Fees</u></p>	

General Permit Provisos

Federally Enforceable Provisos	Regulations
<p>Annual emission fees shall be remitted each year according to the fee schedule in ADEM Admin. Code R. 335-1-7-.04.</p>	Rule 335-1-7-.04
<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>	Rule 335-3-1-.04(1)
<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>	40 CFR Part 82
<p>26. <u>Chemical Accidental Prevention Provisions</u></p> <p>If a chemical listed in Table 1 of 40 CFR Part 68.130 is present in a process in quantities greater than the threshold quantity listed in Table 1, then:</p> <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 Part 68 by the date provided in 40 CFR Part 68 § 68.10(a) or,</p>	40 CFR Part 68

General Permit Provisos

Federally Enforceable Provisos	Regulations
<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>27. <u>Display of Permit</u></p> <p>This permit shall be kept under file or on display at all times at the site where the facility for which the permit is issued is located and will make the permit readily available for inspection by any or all persons who may request to see it.</p>	<p>Rule 335-3-14-.01(1)(d)</p>
<p>28. <u>Circumvention</u></p> <p>No person shall cause or permit the installation or use of any device or any means which, without resulting in the reduction in the total amount of air contaminant emitted, conceals or dilutes any emission of air contaminant which would otherwise violate the Division 3 rules and regulations.</p>	<p>Rule 335-3-1-.10</p>
<p>29. <u>Visible Emissions</u></p> <p>Unless otherwise specified in the Unit Specific provisos of this permit, any source of particulate emissions shall not discharge more than one 6-minute average opacity greater than 20% in any 60-minute period. At no time shall any 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>Unless otherwise specified in the Unit Specific provisos of this permit, no fuel-burning equipment may discharge particulate emissions in excess of the emissions specified in Part 335-3-4-.03.</p> <p>Unless otherwise specified in the Unit Specific provisos of this permit, no fuel-burning equipment may discharge sulfur dioxide emissions in excess of the emissions specified in Part 335-3-5-.01.</p>	<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</p>	<p>Rule 335-3-4-.04</p>

General Permit Provisos

Federally Enforceable Provisos	Regulations
<p>in excess of the emissions specified in Part 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>33. <u>Compliance Assurance Monitoring (CAM)</u></p> <p>Conditions (a) through (d) that follow are general conditions applicable to emissions units that are subject to the CAM requirements. Specific requirements related to each emissions unit are contained in the unit specific provisos and the attached CAM appendices.</p> <p>(a) Operation of Approved Monitoring</p> <p>(1) Commencement of operation. The owner or operator shall conduct the monitoring required under this section and detailed in the unit specific provisos and CAM appendix of this permit (if required) upon issuance of the permit, or by such later date specified in the permit pursuant to §64.6(d).</p> <p>(2) Proper maintenance. At all times, the owner or operator shall maintain the monitoring, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.</p> <p>(3) Continued operation. Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the owner or operator shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutant-specific emissions unit is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of this part, including data averages and calculations, or fulfilling a minimum data availability</p>	<p>Rule 335-3-1-.05</p> <p>40 CFR 64.7</p>

General Permit Provisos

Federally Enforceable Provisos	Regulations
<p>requirement, if applicable. The owner or operator shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.</p> <p>(4) Response to excursions or exceedances.</p> <p style="padding-left: 2em;">(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.</p> <p style="padding-left: 2em;">(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</p>	

General Permit Provisos

Federally Enforceable Provisos	Regulations
<p style="text-align: center;">capture system, and the process.</p> <p>(5) Documentation of need for improved monitoring. After approval of monitoring under this part, if the owner or operator identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the owner or operator shall promptly notify the Department and, if necessary, submit a proposed modification to the permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters.</p> <p>(b) Quality Improvement Plan (QIP) Requirements</p> <p>(1) Based on the results of a determination made under Section 33(a)(4)(b) above, the Administrator or the permitting authority may require the owner or operator to develop and implement a QIP. Consistent with 40 CFR §64.6(c)(3), the permit may specify an appropriate threshold, such as an accumulation of exceedances or excursions exceeding 5 percent duration of a pollutant-specific emissions unit's operating time for a reporting period, for requiring the implementation of a QIP. The threshold may be set at a higher or lower percent or may rely on other criteria for purposes of indicating whether a pollutant-specific emissions unit is being maintained and operated in a manner consistent with good air pollution control practices.</p> <p>(2) Elements of a QIP:</p> <p>A. The owner or operator shall maintain a written QIP, if required, and have it available</p>	<p>40 CFR 64.8</p>

General Permit Provisos

Federally Enforceable Provisos	Regulations
<p>for inspection.</p> <p>B. The plan initially shall include procedures for evaluating the control performance problems and, based on the results of the evaluation procedures, the owner or operator shall modify the plan to include procedures for conducting one or more of the following actions, as appropriate:</p> <p style="padding-left: 40px;">(i) Improved preventive maintenance practices.</p> <p style="padding-left: 40px;">(ii) Process operation changes.</p> <p style="padding-left: 40px;">(iii) Appropriate improvements to control methods.</p> <p style="padding-left: 40px;">(iv) Other steps appropriate to correct control performance.</p> <p style="padding-left: 40px;">(v) More frequent or improved monitoring (only in conjunction with one or more steps under paragraphs (2)(b)(i) through (iv) above).</p> <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> <p style="padding-left: 40px;">A. Failed to address the cause of the control device performance problems; or</p> <p style="padding-left: 40px;">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.</p>	

General Permit Provisos

Federally Enforceable Provisos	Regulations
<p>(5) Implementation of a QIP shall not excuse the owner or operator of a source from compliance with any existing emission limitation or standard, or any existing monitoring, testing, reporting or recordkeeping requirement that may apply under federal, state, or local law, or any other applicable requirements under the Act.</p> <p>(c) Reporting and Recordkeeping Requirements</p> <p>(1) General reporting requirements</p> <p style="margin-left: 20px;">A. On and after the date specified in Section 33(a)(1) above by which the owner or operator must use monitoring that meets the requirements of this part, the owner or operator shall submit monitoring reports to the permitting authority in accordance with ADEM Admin. Code r. 335-3-16-.05(c)3.</p> <p style="margin-left: 20px;">B. A report for monitoring under this part shall include, at a minimum, the information required under ADEM Admin. Code r. 335-3-16-.05(c)3. and the following information, as applicable:</p> <p style="margin-left: 40px;">(i) Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken;</p> <p style="margin-left: 40px;">(ii) Summary information on the number, duration and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable); and</p> <p style="margin-left: 40px;">(iii) A description of the actions taken to implement a QIP during the reporting period as specified in Section 33(b) above. Upon completion of a QIP, the owner or operator shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of</p>	<p>40 CFR 64.9</p>

General Permit Provisos

Federally Enforceable Provisos	Regulations
<p style="text-align: center;">similar levels of excursions or exceedances occurring.</p> <p>(2) General recordkeeping requirements.</p> <p style="margin-left: 20px;">A. The owner or operator shall comply with the recordkeeping requirements specified in ADEM Admin. Code r. 335-3-16-.05(c)2.. The owner or operator shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to Section 33(b) above and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained under this part (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions).</p> <p style="margin-left: 20px;">B. Instead of paper records, the owner or operator may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements.</p> <p>(d) Savings Provisions</p> <p>(3) Nothing in this part shall:</p> <p style="margin-left: 20px;">A. Excuse the owner or operator of a source from compliance with any existing emission limitation or standard, or any existing monitoring, testing, reporting or recordkeeping requirement that may apply under federal, state, or local law, or any other applicable requirements under the Act. The requirements of this part shall not be used to justify the approval of monitoring less stringent than the monitoring which is required under separate legal authority and are not intended to establish minimum</p>	<p style="text-align: center;">40 CFR 64.10</p>

General Permit Provisos

Federally Enforceable Provisos	Regulations
<p>requirements for the purpose of determining the monitoring to be imposed under separate authority under the Act, including monitoring in permits issued pursuant to title I of the Act. The purpose of this part is to require, as part of the issuance of a permit under title V of the Act, improved or new monitoring at those emissions units where monitoring requirements do not exist or are inadequate to meet the requirements of this part.</p> <p>B. Restrict or abrogate the authority of the Department to impose additional or more stringent monitoring, recordkeeping, testing, or reporting requirements on any owner or operator of a source under any provision of the Act, including but not limited to sections 114(a)(1) and 504(b), or state law, as applicable.</p> <p>C. Restrict or abrogate the authority of the Department to take any enforcement action under the Act for any violation of an applicable requirement or of any person to take action under section 304 of the Act.</p>	
<p>34. <u>Emissions Inventory Reporting Requirements</u></p> <p>In order to meet the statewide emissions inventory reporting requirements under 40 CFR 51, Appendix A, the permittee shall comply with the reporting requirements under ADEM Admin. Code r. 335-3-1-.15.</p>	<p>Rule 335-3-1-.15</p>
<p>35. <u>Permit Shield</u></p> <p>(a) A permit shield exists under this operating permit in accordance with ADEM Admin. Code 335-3-16-.10 in that compliance with the conditions of this permit shall be deemed compliance with any applicable requirements as of the date of permit issuance, provided that such applicable requirements are included and are specifically identified in this operating permit.</p>	<p>Rule 335-3-16-.10</p>

General Permit Provisos

Federally Enforceable Provisos	Regulations
<p>(b) Nothing in this permit shall alter or affect the following:</p> <ul style="list-style-type: none">(1) The provisions of Section 303 of the Act (emergency orders), including the authority of the Administrator under that section;(2) The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance;(3) The applicable requirements of the acid rain program, consistent with Section 408(a) of the Act; or(4) The ability of EPA to obtain information from a source pursuant to Section 114 of the Act.	

Summary Page for 100 MW Natural Gas Fired Combustion Turbine w/ Natural Gas/Hydrogen Fired 260 MMBtu/hr Duct Burner and Heat Recovery Steam Generator

Permitted Operating Schedule: 8760 Hrs/yr

Emission limitations:

Emission Point #	Description	Pollutant	Emission limit	Regulation
001	Combined CT/Duct Burner Exhaust	PM	CT – 0.01 lb/MMBtu & 5.0 lb/hr DB – 0.02 lb/MMBtu & 2.9 lb/hr Combined – 0.01 lb/MMBtu & 7.9 lb/hr	ADEM Admin. Code r. 335-3-14-.04(9)(b) BACT
001	Combined CT/Duct Burner Exhaust	NOx	CT – 15 ppmvd @15% O ₂ & 62.5 lb/hr DB – 0.20 lb/MMBtu & 34 lb/hr Combined – 0.09 lb/MMBtu & 96.5 lb/hr	ADEM Admin. Code r. 335-3-14-.04(9)(b) BACT
001	Combined CT/Duct Burner Exhaust	SO ₂	150 ppmvd at 15% O ₂ or Sulfur content limit of 0.8%	40 CFR Part 60 Subpart GG
001	Combined CT/Duct Burner Exhaust	CO	CT – 0.07 lb/MMBtu & 61.5 lb/hr DB (> 130 MMBtu/hr) 0.07 lb/MMBtu & 18.2 lb/hr DB (<= 130 MMBtu/hr) 0.1 lb/MMBtu Combined – 0.08 lb/MMBtu & 79.7 lb/hr	ADEM Admin. Code r. 335-3-14-.04(9)(b) BACT
001	Combined CT/Duct Burner Exhaust	VOC	CT – 3.7 lb/hr DB – 3.4 lb/hr Combined – 7.1 lb/hr	ADEM Admin. Code r. 335-3-14-.04(9)(b) BACT
001	Combined CT/Duct Burner Exhaust	Opacity	10%	ADEM Admin. Code r. 335-3-14-.04(9)(b) BACT

Provisos for 100 MW Natural Gas Fired Combustion Turbine w/ Natural Gas/Hydrogen Fired 260 MMBtu/hr Duct Burner and Heat Recovery Steam Generator

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
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
3. The combustion turbine associated with this unit is subject to the provisions of ADEM Admin. Code r. 335-3-10-.02(33), 40 CFR 60 Subpart GG "Standards of Performance for Stationary Gas Turbines."	Rule 335-3-10-.02(33) 40 CFR Part 60 Subpart GG
4. The duct burner associated with this unit is subject to the provisions of ADEM Admin. Code r. 335-3-10-.02(33), 40 CFR 60 Subpart Db "Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units."	Rule 335-3-10-.02(2)(b) 40 CFR Part 60 Subpart Db
5. Where an applicable requirement of the Act is more stringent than an applicable requirement of regulations promulgated under Title IV of the Act, both provisions are incorporated as enforceable conditions of this permit.	Rule 335-3-16-.05(a)2
6. These 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 and 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. Nitrogen Oxides emissions from the combustion turbine shall not exceed 15 ppmvd @ 15% O ₂ and 62.5 lbs/hr.	Rule 335-3-14-.04(9)(b) BACT
3. Nitrogen Oxides emissions from the duct burner shall not exceed 0.20 lb/MMBtu and 34.0 lbs/hr.	Rule 335-3-14-.04(9)(b) BACT
4. Nitrogen Oxides emissions from the combined combustion turbine/duct burner stack shall not exceed 0.09 lb/MMBtu and 96.5 lbs/hr.	Rule 335-3-14-.04(9)(b) BACT
5. Carbon Monoxide emissions from the combustion turbine shall not exceed 0.07 lb/MMBtu and 61.5 lbs/hr.	Rule 335-3-14-.04(9)(b) BACT

Federally Enforceable Provisos	Regulations
6. Carbon Monoxide emissions from the duct burner shall not exceed 0.07 lb/MMBtu and 18.2 lbs/hr when operating above a heat input of 130 MMBtu/hr and 0.1 lb/MMBtu when operating at or below a heat input of 130 MMBtu/hr.	Rule 335-3-14-.04(9)(b) BACT
7. Carbon Monoxide emissions from the combined combustion turbine/duct burner stack shall not exceed 0.08 lb/MMBtu and 79.7 lbs/hr.	Rule 335-3-14-.04(9)(b) BACT
8. Volatile Organic Compound emissions from the combustion turbine shall not exceed 3.7 lbs/hr.	Rule 335-3-14-.04(9)(b) BACT
9. Volatile Organic Compound emissions from the duct burner shall not exceed 3.4 lbs/hr.	Rule 335-3-14-.04(9)(b) BACT
10. Volatile Organic Compound emissions from the combined combustion turbine/duct burner stack shall not exceed 7.1 lbs/hr.	Rule 335-3-14-.04(9)(b) BACT
11. Particulate emissions from the combustion turbine shall not exceed 0.01 lb/MMBtu and 5.0 lbs/hr.	Rule 335-3-14-.04(9)(b) BACT
12. Particulate emissions from the duct burner shall not exceed 0.02 lb/MMBtu and 2.9 lbs/hr.	Rule 335-3-14-.04(9)(b) BACT
13. Particulate emissions from the combined turbine/duct burner stack shall not exceed 0.01 lb/MMBtu and 7.9 lb/hr.	Rule 335-3-14-.04(9)(b) BACT
14. Visible emissions from the combined turbine/duct burner stack shall not exceed 10% opacity.	Rule 335-3-14-.04(9)(b) BACT
15. No owner or operator shall burn in any stationary gas turbine any fuel which contains sulfur in excess of 0.8 percent by weight or 150 ppmvd at 15% oxygen.	40 CFR 60 Subpart GG
16. During periods 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 2-14 above: (a) Take all reasonable actions to minimize the magnitude and duration of elevated emission conditions during these periods; (b) Employ good operation and maintenance practices on CT/DB, including on associated pollution control technology; and (c) Comply with emission monitoring, recordkeeping, and reporting requirements in this permit.	Rule 335-3-14-.03(1)(h)

Federally Enforceable Provisos

Regulations

Startup: The period from when the combustion turbine is started until it reaches “Dry Low NOx (DLN)” mode of combustion.

Shutdown: The period when the load on the combustion turbine is decreasing from Dry Low NOx (DLN) mode of combustion.

Load Change: A change in heat input that creates a transient operating condition that is readily identifiable on the load chart recording.

17. The combustion turbine and duct burner shall fire only natural gas.

Rule 335-3-14-.04

Compliance and Performance Test Methods and Procedures

1. Compliance with the Nitrogen Oxides emissions standards shall be determined by EPA Reference Method 20 as found in Appendix A of 40 CFR 60.

Rule 335-3-1-.05

2. Compliance with the Carbon Monoxide emissions standards shall be determined by EPA Reference Method 10 as found in Appendix A of 40 CFR 60.

Rule 335-3-1-.05

3. Compliance with the Volatile Organic Compounds emissions standards shall be determined by EPA Reference Method 25, 25A, or 25B, as found in Appendix A of 40 CFR 60.

Rule 335-3-1-.05

4. Compliance with the particulate emissions standards shall be determined by EPA Reference Method 5 or 17, as found in Appendix A of 40 CFR 60.

Rule 335-3-1-.05

5. Compliance with the opacity standards shall be determined by EPA Reference Method 9 as found in Appendix A of 40 CFR 60.

Rule 335-3-1-.05

Emission Monitoring

1. The NO_x emission rate from this unit shall be monitored by the NO_x Continuous Emissions Monitoring (CEMS). The NO_x emission rate shall be monitored on a rolling three-hour average. The NO_x CEMS shall be maintained and certified using the procedures of 40 CFR 75.

40 CFR 75

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

Recordkeeping and Reporting Requirements

Federally Enforceable Provisos**Regulations**

1. An emission report as defined by 40 CFR 60.7(c) will be submitted to the ADEM within 30 days of the end of the calendar quarter in the following format:

Rule 335-3-16-.05(c)
Rule 335-3-1-.04

NO_x

- A. Source Operating Time (all times and periods in hours unless otherwise noted)
- B. Time Monitor System was Able to Record Source Performance*
- C. Monitor Availability (%) = $B/A \times 100$
- D. Total Excess Emission Periods where the CEM data may indicate emissions above standards ** (3 hour periods)
- E. Overall Source Performance (%) = $[(B - D)/B] \times 100$
- F. Periods subject to work practice limitations - $F_{(x)}$ (3 hour periods)
- F_1 = Startup/Shutdown
- F_2 = Load Change
- G. Net Excess Emissions = $D - \sum F_{(x)}$ (3 hour periods)
- 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:
- = 100-E
- J. Net Exceedances (%) - Percent of time above the standard due to non-exempt reasons:
- = 100-H
- K. Work Practice Period Exceedances (%) – Percent of time above the numeric limitations during periods subject to work practice limitations:
- SU/SD = $(F_1/B) \times 100$
- Load Change = $(F_2/B) \times 100$

Federally Enforceable Provisos

Regulations

* 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. NO_x emissions rate (lb/MMBtu) will be computed as a 3-hour rolling average.

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

Acid Rain Requirements

1. This unit is 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 and 40
CFR Parts 72, 73 and 75

Summary Page for 274 MMBtu/hr Natural Gas /Hydrogen Fired Boiler w/ FGR

Permitted Operating Schedule: 8760 Hrs/yr

Emission limitations:

Emission Point #	Description	Pollutant	Emission limit	Regulation
PB401R	274 MMBtu/hr Boiler	PM	0.12 lb/MMBtu	ADEM Admin. Code r. 335-3-4-.03 Table 4-1
PB401R	274 MMBtu/hr Boiler	NOx	0.20 lb/MMBtu and 55 lb/hr	40 CFR Part 60 Subpart Db
PB401R	274 MMBtu/hr Boiler	SO ₂	4.0 lb/MMBtu	ADEM Admin. Code r. 335-3-5-.01(1)(b)
PB401R	274 MMBtu/hr Boiler	CO	N/A	N/A
PB401R	274 MMBtu/hr Boiler	Opacity	See General Provisos	Rule 335-3-4-.01(1)
PB401R	274 MMBtu/hr Boiler	HAPs	N/A	N/A
PB401R	274 MMBtu/hr Boiler	VOC	N/A	N/A

Provisos for 274 MMbtu/hr Natural Gas / Hydrogen Fired Boiler w/ FGR

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
2. This boiler is subject to the applicable requirements of ADEM Admin. Code r. 335-3-10-.02(2)(b), 40 CFR 60 Subpart Db "Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units."	Rule 335-3-10-.02(2)(b) 40 CFR Part 60 Subpart Db
<u>Emission Standards</u>	
1. The package boiler shall fire only natural gas.	Rule 335-3-14-.04 Anti-PSD
2. Particulate matter emissions from this unit shall not exceed 0.12 lb/MMBtu.	Rule 335-3-4-.03 ; Table 4-1
3. Nitrogen Oxide emissions from this unit shall not exceed 0.20 lb/MMBtu and 55 lb/hr.	40 CFR 60.44b
4. Sulfur dioxide emissions from this unit shall not exceed 4.0 lb/MMBtu.	ADEM Admin. Code r. 335-3-5-.01(1)(b)
<u>Compliance and Performance Test Methods and Procedures</u>	
1. Compliance with the Nitrogen Oxides emissions standards shall be determined by EPA Reference Method 7 or 7E as found in Appendix A of 40 CFR 60.	Rule 335-3-1-.05
2. Compliance with the particulate emissions standards shall be determined by EPA Reference Method 5 or 17, as found in Appendix A of 40 CFR 60.	Rule 335-3-1-.05
3. Compliance with the opacity standards shall be determined by EPA Reference Method 9 as found in Appendix A of 40 CFR 60.	Rule 335-3-1-.05
<u>Emission Monitoring</u>	
1. The NOx emission rate from this unit shall be monitored by the NOx Continuous Emissions Monitoring (CEMS). The NOx emission rate shall be monitored on a rolling thirty-day average. The NOx CEMS shall be maintained and certified using the procedures of 40 CFR 60 Subpart Db.	Rule 335-3-16-.05(c) 40 CFR Part 60 Subpart Db

Federally Enforceable Provisos**Regulations**

- | Federally Enforceable Provisos | Regulations |
|---|--|
| 2. The CEMS required under paragraph (b) of 60.48b shall be operated and data recorded during all periods of operation of the affected facility except for CEMS breakdowns and repairs. Data is recorded during calibration checks, and zero and span adjustments. | Rule 335-3-16-.05(c)
40 CFR Part 60
Subpart Db |
| 3. The 1 hour average NO _x emission rates measured by the continuous NO _x monitor required by paragraph (b) of 60.48b and required under 60.13(h) shall be expressed in ng/J or lb/MMBtu heat input and shall be used to calculate the average emission rates under 60.44b. The 1-hour averages shall be calculated using the data points required under 60.13 (h) (2). | Rule 335-3-16-.05(c)
40 CFR Part 60
Subpart Db |
| 4. When NO _x emission data are not obtained because of CEMS breakdowns, repairs, calibration checks and zero and span adjustments, emission data will be obtained by using standby monitoring systems. Method 7 of appendix A to 40 CFR 60, Method 7A of appendix A to 40 CFR 60, or other approved reference methods to provide emission data for a minimum of 75 percent of the operating hours in each steam generating unit operating day, in at least 22 out of 30 successive steam generating unit operating days. | Rule 335-3-16-.05(c)
40 CFR Part 60
Subpart Db |

Recordkeeping and Reporting Requirements

- | | |
|---|------------------|
| 1. Within 30 days after the end of each calendar quarter, the permittee will submit an excess NO _x emissions report (EER) to the Department. This report shall contain all the applicable information required by 40 CFR 60.49b. | 40 CFR 60.49b |
| 2. Per CFR 60.49b(r), the permittee shall maintain records verifying that only natural gas was combusted in this package boiler. | 40 CFR 60.49b(r) |
| 3. The permittee shall submit the applicable report(s) to the Department according to the requirements of the Greenhouse Gas Reporting Rule in 40 CFR 98. | 40 CFR 98 |

Summary Page for Two (2) 184 MMBtu/hr Natural Gas /Hydrogen Fired Boilers

Permitted Operating Schedule: 8760 Hrs/yr

Emission limitations:

Emission Point #	Description	Pollutant	Emission limit	Regulation
PB201R, PB301R	184 MMBtu/hr Boiler	PM	3.0 lb/hr	ADEM Admin. Code r. 335-3-14-.04 Anti-PSD
PB201R, PB301R	184 MMBtu/hr Boiler	NOx	0.20 lb/MMBtu 9.0 lb/hr	Rule 335-3-10-.02(2)(b) 40 CFR 60 Subpart Db ADEM Admin. Code r. 335-3-14-.04 Anti-PSD
PB201R, PB301R	184 MMBtu/hr Boiler	SO ₂	Natural Gas and Hydrogen Fuels Only	ADEM Admin. Code r. 335-3-14-.04 Anti-PSD
PB201R, PB301R	184 MMBtu/hr Boiler	CO	N/A	N/A
PB201R, PB301R	184 MMBtu/hr Boiler	VOC	N/A	N/A
PB201R, PB301R	184 MMBtu/hr Boiler	HAPs	N/A	N/A
PB201R, PB301R	184 MMBtu/hr Boiler	Opacity	20%, except one per hour ≤ 40%	ADEM Admin. Code r. 335-3-4-.01(1)

Provisos for Two (2) 184 MMBtu/hr Natural Gas Fired Boilers w/ Hydrogen Backup

Federally Enforceable Provisos	Regulations
<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
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
3. These sources are subject to the applicable requirements of ADEM Admin. Code r. 335-3-10-.02(1), 40 CFR Part 60, Subpart A "General Provisions."	Rule 335-3-10-.02(1) 40 CFR Part 60 Subpart A
4. These sources are subject to the applicable requirements of ADEM Admin. Code r. 335-3-10-.02(2)(b), 40 CFR Part 60, Subpart Db "Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units."	Rule 335-3-10-.02(2)(b) 40 CFR Part 60 Subpart Db
5. For nitrogen oxides, this source is subject to the applicable requirements of 40 CFR Part 64, "Compliance Assurance Monitoring", to include General Proviso # 33.	40 CFR Part 64
<u>Emission Standards</u>	
1. These boilers shall fire only natural gas and/or hydrogen.	Rule 335-3-14-.04 Anti-PSD
2. The Nitrogen Oxides emission rate from each of these units shall not exceed 0.20 lb/MMBtu based on a 30-day rolling average.	Rule 335-3-10-.02(2)(b) 40 CFR 60.Subpart Db
3. The Nitrogen Oxides emission rate from each of these units shall not exceed 9.0 lb/hr, (0.0489 lbs/mmBtu at 184 mmBtu/hr of heat input).	Rule 335-3-14-.04 Anti-PSD
4. The particulate matter emission rate from each of these units shall not exceed 3.0 lb/hr, except during periods of startup, shutdown, or load change.	Rule 335-3-14-.04 Anti-PSD

Federally Enforceable Provisos**Regulations**

5. These units shall not discharge more than one 6-minute average opacity greater than 20% in any 60-minute period. At no time shall these units discharge a 6-minute average opacity of particulate emissions greater than 40%.

Rule 335-3-4-.01(1)

Compliance and Performance Test Methods and Procedures

1. Compliance with Nitrogen Oxides Emission Standard Number 2 shall be determined by the Continuous Emissions Monitoring System as specified in NSPS Subpart Db. Alternate methods may be utilized if approved in advance by the Department.
2. Compliance with Nitrogen Oxides Emission Standard Number 3 shall be determined by EPA Reference Method 7 or 7E as found in Appendix A of 40 CFR 60. Compliance with this standard may be indicated by the Continuous Emissions Monitoring System.
3. Compliance with the particulate emissions standards shall be determined by EPA Reference Method 5 or 17, as found in Appendix A of 40 CFR 60. Alternate methods may be utilized if approved in advance by the Department.
4. Compliance with the opacity standards shall be determined by EPA Reference Method 9 as found in Appendix A of 40 CFR 60.

40 CFR 60.44b(c)

Rule 335-3-1-.05

Rule 335-3-1-.05

Rule 335-3-1-.05

Emission Monitoring

1. Compliance Assurance Monitoring shall be conducted in accordance with the attached Appendix.
2. The NO_x emission rate from these units shall be monitored by the NO_x Continuous Emissions Monitoring Systems (CEMS). The NO_x emission rates shall be monitored on a 30-day rolling average. The NO_x CEMS shall be maintained and certified using the procedures of 40 CFR 60.

40 CFR Part 64

Rule 335-3-10-.02(2)(b)
40 CFR Part 60.48b
Rule 335-3-14-.04Recordkeeping and Reporting Requirements

1. Records documenting the amount and type of fuel burned in the boiler each day it is operated shall be kept in a form suitable for inspection for a period of at least five years following said recording.

40 CFR 60.49b(d)

Federally Enforceable Provisos**Regulations**

- | Federally Enforceable Provisos | Regulations |
|---|----------------------|
| 2. Within 30 days after the end of each calendar quarter, the permittee will submit an excess NO _x emissions report (EER) to the Department. This report shall contain all the applicable information required by 40 CFR 60.49b. | 40 CFR 60.49b |
| 3. A report of hours of operation will be submitted to ADEM within 30 days of the end of the quarter and will include the following information:

A. Number of gas-fired hours per quarter

B. Number of gas-fired hours per quarter not coded as startup, shutdown or load change

C. Number of gas-fired hours per quarter that CEMS was able to record valid data*

* 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. | Rule 335-3-16-.05(c) |
| 4. This source is subject to the applicable requirements of 40 CFR Part 64, "Compliance Assurance Monitoring" to include the Reporting and Recordkeeping Requirements. | 40 CFR 64.9 |

Compliance Assurance Monitoring (CAM) Plans

CAM Plan- Steam Boiler 201R

Flue Gas Recirculation (FGR) for NO_x Emission Control

I. Indicator	NO _x emission rate in lbs/mmBtu is the indicator of FGR performance.
Measurement Approach	
II. Indicator Range	A NO _x emission rate of 0.049 lbs/mmBtu while burning Natural Gas (NG) monitored using a 30-day rolling average computed by CEMS is the designated indicator condition that provides reasonable assurance of ongoing compliance.
III. Performance Criteria	
Representative Data	The exhaust gas is continuously sampled by a probe located in the stack in accordance with 40 CFR 60, Appendix A. The NO _x concentration of the exhaust gas sample is measured by the NO _x CEMS analyzer in ppmv. The NO _x concentration is converted to lb/mmBtu and recorded by the CEMS DAHS.
Verification of Operational Status	The initial testing and certification procedures and the performance protocol (PS3) in 40 CFR 60, Appendix B were used to verify the CEMS operation status.
QA/QC Practices and Criteria	The practices that ensure continuing validity of the data are outlined in the monitoring requirements of 40 CFR 60.13.
Monitoring Frequency	Emissions are monitored continuously.
Data Collection Procedures/Averaging Period	Data is collected continuously and a 30-day rolling average is computed by the CEMS DAHS to determine whether an exceedance has occurred.

CAM Plan- Steam Boiler 301R

Flue Gas Recirculation (FGR) for NO_x Emission Control

I. Indicator	NO _x emission rate in lbs/mmBtu is the indicator of FGR performance.
Measurement Approach	
II. Indicator Range	A NO _x emission rate of 0.049 lbs/mmBtu while burning Natural Gas (NG) monitored using a 30-day rolling average computed by CEMS is the designated indicator condition that provides reasonable assurance of ongoing compliance.
III. Performance Criteria	
Representative Data	The exhaust gas is continuously sampled by a probe located in the stack in accordance with 40 CFR 60, Appendix A. The NO _x concentration of the exhaust gas sample is measured by the NO _x CEMS analyzer in ppmv. The NO _x concentration is converted to lb/mmBtu and recorded by the CEMS DAHS.
Verification of Operational Status	The initial testing and certification procedures and the performance protocol (PS3) in 40 CFR 60, Appendix B were used to verify the CEMS operation status.
QA/QC Practices and Criteria	The practices that ensure continuing validity of the data are outlined in the monitoring requirements of 40 CFR 60.13.
Monitoring Frequency	Emissions are monitored continuously.
Data Collection Procedures/Averaging Period	Data is collected continuously and a 30-day rolling average is computed by the CEMS DAHS to determine whether an exceedance has occurred.

Phase II Acid Rain Permit

Issued by: Alabama Department of Environmental Management
Issued to: Alabama Power Company – Washington County
Cogeneration Plant
Operated by: Alabama Power Company
ORIS Code: 7697
Effective: April 1, 2016 through March 31, 2021

Acid Rain Permit Contents

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

		2016	2017	2018	2019	2020
CC1	SO ₂ allowances, under 40 CFR part 73 [tons]	NA ¹				
	NO _x limit [lb/MMBtu]	∞ 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 Combined Cycle Unit CC1.

3) Comments, Notes, and Justifications: This facility consists of a combined cycle 100 MW Natural Gas Fired Combustion Turbine with a Natural Gas/Hydrogen Fired 260 MMBtu/hr Duct Burner and Heat Recovery boiler, a 274 MMBtu/hr Natural Gas/Hydrogen Fired Boiler, and 2 – 184 MMBtu/hr Natural Gas Fired Boilers. The Heat Recovery Boiler supplies steam to an adjacent industrial facility and a 37 MW steam turbine. The two natural gas fired boilers also supply steam to the adjacent industrial facility. The two natural gas fired boilers are not used for electric generation and are not affected units under Acid Rain.

4) Phase II Permit Application: Attached.

5) Summary of Previous Actions and Current Action:

Action	Date
1. Draft permit prepared and submitted for public review and comment.	November 25, 1998
2. Permit finalized and issued.	January 28, 1999
3. Permit Re-Issued for Name Change	November 22, 1999
4. Permit Re-Issued to include actual commence operation and monitor certification deadline dates.	March 30, 2000
5. Draft renewal permit prepared and submitted for public review and comment.	December 1, 2004
6. Renewal permit finalized and issued.	January 1, 2005
7. Renewal draft permit prepared and submitted for public review and comment.	February 4, 2011
8. Renewal permit finalized and issued.	March 22, 2011
9. Renewal draft permit prepared and submitted for public review and comment.	DATE
10. Renewal permit finalized and issued.	DRAFT

Ronald W. Gore, Chief
Air Division

Date

Facility (Source) Name (from STEP 1): Washington County Cogeneration Plant

STEP 3**Permit Requirements**

Read the standard requirements.

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

Monitoring Requirements

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

Sulfur Dioxide Requirements

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

Facility (Source) Name (from STEP 1): Washington County
Cogeneration Plant

STEP 3, Cont'd.

Sulfur Dioxide Requirements, Cont'd.

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

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

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

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

Nitrogen Oxides Requirements

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

Excess Emissions Requirements

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

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

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

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

Recordkeeping and Reporting Requirements

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

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

Facility (Source) Name (from STEP 1): Washington County
Cogeneration Plant

STEP 3, Cont'd.

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

Recordkeeping and Reporting Requirements, Cont'd.

(ii) All emissions monitoring information, in accordance with 40 CFR part 75, provided that to the extent that 40 CFR part 75 provides for a 3-year period for recordkeeping, the 3-year period shall apply.

(iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the Acid Rain Program; and,

(iv) Copies of all documents used to complete an Acid Rain permit application and any other submission under the Acid Rain Program or to demonstrate compliance with the requirements of the Acid Rain Program.

(2) The designated representative of an affected source and each affected unit at the source shall submit the reports and compliance certifications required under the Acid Rain Program, including those under 40 CFR part 72 subpart I and 40 CFR part 75.

Liability

(1) Any person who knowingly violates any requirement or prohibition of the Acid Rain Program, a complete Acid Rain permit application, an Acid Rain permit, or an exemption under 40 CFR 72.7 or 72.8, including any requirement for the payment of any penalty owed to the United States, shall be subject to enforcement pursuant to section 113(c) of the Act.

(2) Any person who knowingly makes a false, material statement in any record, submission, or report under the Acid Rain Program shall be subject to criminal enforcement pursuant to section 113(c) of the Act and 18 U.S.C. 1001.

(3) No permit revision shall excuse any violation of the requirements of the Acid Rain Program that occurs prior to the date that the revision takes effect.

(4) Each affected source and each affected unit shall meet the requirements of the Acid Rain Program.

(5) Any provision of the Acid Rain Program that applies to an affected source (including a provision applicable to the designated representative of an affected source) shall also apply to the owners and operators of such source and of the affected units at the source.

(6) Any provision of the Acid Rain Program that applies to an affected unit (including a provision applicable to the designated representative of an affected unit) shall also apply to the owners and operators of such unit.

(7) Each violation of a provision of 40 CFR parts 72, 73, 74, 75, 76, 77, and 78 by an affected source or affected unit, or by an owner or operator or designated representative of such source or unit, shall be a separate violation of the Act.

Effect on Other Authorities

No provision of the Acid Rain Program, an Acid Rain permit application, an

Facility (Source) Name (from STEP 1): Washington County
Cogeneration Plant

STEP 3, Cont'd.

Acid Rain permit, or an exemption under 40 CFR 72.7 or 72.8 shall be construed as:

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

Effect on Other Authorities, Cont'd.

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

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

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

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

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

STEP 4

Certification

Read the certification statement, sign, and date.

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

Name: Matthew W. Bowden	
Signature <i>Matthew W. Bowden</i>	Date <i>9/15/15</i>

