



MAJOR SOURCE OPERATING PERMIT

Permittee: **CER Generation, LLC**

Facility Name: **Hillabee Power Plant**

Facility No.: 310-0022

Location: Alexander City, Tallapoosa 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: *Date TBD*

Expiration Date: *Date TBD*

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

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or reducing the permitted activity.	
<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)

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<p>10. <u>Inspection and Entry</u></p> <p>Upon presentation of credentials and other documents as may be required by law, the permittee shall allow authorized representatives of the Alabama Department of Environmental Management and EPA to conduct the following:</p> <ul style="list-style-type: none"> (a) Enter upon the permittee’s premises where a source is located or emissions-related activity is conducted, or where records must be kept pursuant to the conditions of this permit; (b) Review and/or copy, at reasonable times, any records that must be kept pursuant to the conditions of this permit; (c) Inspect, at reasonable times, this facility’s equipment (including monitoring equipment and air pollution control equipment), practices, or operations regulated or required pursuant to this permit; (d) Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or other applicable requirements. 	<p>Rule 335-3-16-.07(b)</p>
<p>11. <u>Compliance Provisions</u></p> <ul style="list-style-type: none"> (a) The permittee shall continue to comply with the applicable requirements with which the company has certified that it is already in compliance. (b) The permittee shall comply in a timely manner with applicable requirements that become effective during the term of this permit. 	<p>Rule 335-3-16-.07(c)</p>
<p>12. <u>Compliance Certification</u></p> <p>A compliance certification shall be submitted yearly by February 28 covering the period from January 1 through December 31 unless more frequent periods are specified according to the specific rule governing the source or required by the Department.</p>	<p>Rule 335-3-16-.07(e)</p>

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<p>(a) The compliance certification shall include the following:</p> <ol style="list-style-type: none"> (1) The identification of each term or condition of this permit that is the basis of the certification; (2) The compliance status; (3) The method(s) used for determining the compliance status of the source, currently and over the reporting period consistent with Rule 335-3-16-.05(c) (Monitoring and Recordkeeping Requirements); (4) Whether compliance has been continuous or intermittent; (5) Such other facts as the Department may require to determine the compliance status of the source; <p>(b) The compliance certification shall be submitted to:</p> <p style="text-align: center;">Alabama Department of Environmental Management Air Division P.O. Box 301463 Montgomery, AL 36130-1463</p> <p style="text-align: center;">and to:</p> <p style="text-align: center;">Enforcement and Compliance Assurance Division EPA Region 4 Atlanta Federal Center 61 Forsyth Street, SW Atlanta, GA 30303</p> <p>13. <u>Reopening for Cause</u></p> <p>Under any of the following circumstances, this permit will be reopened prior to the expiration of the permit:</p> <ol style="list-style-type: none"> (a) Additional applicable requirements under the Clean Air Act of 1990 become applicable to the permittee with a remaining permit term of three (3) or more years. Such a reopening shall be completed not later than eighteen (18) months after promulgation of the 	<p style="text-align: center;">Rule 335-3-16-.13(5)</p>

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<p>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>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>15. <u>Equipment Maintenance or Breakdown</u></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>18. <u>Fugitive Dust</u></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> <p>(1) By the application of water any time the surface of the road is sufficiently dry to allow the creation of dust emissions by the act of wind or vehicular traffic;</p> <p>(2) By reducing the speed of vehicular traffic to a point below that at which dust emissions are created;</p> <p>(3) By paving;</p> <p>(4) By the application of binders to the road surface at any time the road surface is found to allow the creation of dust emissions;</p> <p>Should one, or a combination, of the above methods fail to adequately reduce airborne dust from plant or haul roads and grounds, alternative methods shall be employed, either exclusively or in combination with one or all of the above control techniques, so that dust will not become airborne. Alternative methods shall be approved by the Department prior to utilization.</p>	Rule 335-3-4-.02
<p>19. <u>Additions and Revisions</u></p> <p>Any modifications to this source shall comply with the modification procedures in Rules 335-3-16-.13 or 335-3-16-.14.</p>	Rule 335-3-16-.13 and .14

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<p>20. <u>Recordkeeping Requirements</u></p> <p>(a) Records of required monitoring information of the source shall include the following:</p> <ul style="list-style-type: none"> (1) The date, place, and time of all sampling or measurements; (2) The date analyses were performed; (3) The company or entity that performed the analyses; (4) The analytical techniques or methods used; (5) The results of all analyses; and (6) The operating conditions that existed at the time of sampling or measurement. <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>21. <u>Reporting Requirements</u></p> <p>(a) Reports to the Department of any required monitoring shall be submitted at least every 6 months. All instances of deviations from permit requirements must be clearly identified in said reports. All required reports must be certified by a responsible official consistent with Rule 335-3-16-.04(9).</p> <p>(b) Deviations from permit requirements shall be reported within 48 hours or 2 working day of such deviations, including those attributable to upset conditions as defined in the permit. The report will include the probable cause of said deviations, and any corrective actions or preventive measures that were taken.</p>	<p>Rule 335-3-16-.05(c)3</p>

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<p>23. <u>Payment of Emission Fees</u></p> <p>Annual emission fees shall be remitted each year according to the fee schedule in ADEM Admin. Code r. 335-1-7-.04.</p>	<p>Rule 335-1-7-.04</p>
<p>24. <u>Other Reporting and Testing Requirements</u></p> <p>Submission of other reports regarding monitoring records, fuel analyses, operating rates, and equipment malfunctions may be required as authorized in the Department's air pollution control rules and regulations. The Department may require emission testing at any time.</p>	<p>Rule 335-3-1-.04(1)</p>
<p>25. <u>Title VI Requirements (Refrigerants)</u></p> <p>Any facility having appliances or refrigeration equipment, including air conditioning equipment, which use Class I or Class II ozone-depleting substances as listed in 40 CFR Part 82, Subpart A, Appendices A and B, shall service, repair, and maintain such equipment according to the work practices, personnel certification requirements, and certified recycling and recovery equipment specified in 40 CFR Part 82, Subpart F.</p> <p>No person shall knowingly vent or otherwise release any Class I or Class II substance into the environment during the repair, servicing, maintenance, or disposal of any device except as provided in 40 CFR Part 82, Subpart F.</p> <p>The responsible official shall comply with all reporting and recordkeeping requirements of 40 CFR 82.166. Reports shall be submitted to the US EPA and the Department as required.</p>	<p>Rule 335-3-16-.05(a)</p>
<p>26. <u>Chemical Accidental Prevention Provisions</u></p> <p>If a chemical listed in Table 1 of 40 CFR 68.130 is present in a process in quantities greater than the threshold quantity listed in Table 1, then:</p> <p>(a) The owner or operator shall comply with the provisions in 40 CFR Part 68.</p> <p>(b) The owner or operator shall submit one of the following:</p>	<p>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>27. <u>Display of Permit</u></p> <p>This permit shall be kept under file or on display at all times at the site where the facility for which the permit is issued is located and will be made readily available for inspection by any or all persons who may request to see it.</p>	Rule 335-3-14-.01(1)(d)
<p>28. <u>Circumvention</u></p> <p>No person shall cause or permit the installation or use of any device or any means which, without resulting in reduction in the total amount of air contaminant emitted, conceals or dilutes any emission of air contaminant which would otherwise violate the Division 3 rules and regulations.</p>	Rule 335-3-1-.10
<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>	Rule 335-3-4-.01(1)
<p>30. <u>Fuel-Burning Equipment</u></p> <p>(a) Unless otherwise specified in the Unit Specific provisos of this permit, no fuel-burning equipment may discharge particulate emissions in excess of the emissions specified in Rule 335-3-4-.03.</p> <p>(b) Unless otherwise specified in the Unit Specific provisos of this permit, no fuel-burning equipment may discharge sulfur dioxide emissions in excess of</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>31. <u>Process Industries – General</u></p> <p>Unless otherwise specified in the Unit Specific provisos of this permit, no process may discharge particulate emissions in excess of the emissions specified in Rule 335-3-4-.04.</p>	Rule 335-3-4-.04
<p>32. <u>Averaging Time for Emission Limits</u></p> <p>Unless otherwise specified in the permit, the averaging time for the emission limits listed in this permit shall be the nominal time required by the specific test method.</p>	Rule 335-3-1-.05
<p>33. <u>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>	Rule 335-3-1-.15
<p>34. <u>Permit Shield</u></p> <p>A permit shield exists under this operating permit in accordance with ADEM Admin. Code r. 335-3-16-.10 in that compliance with the conditions of this permit shall be deemed in compliance with any applicable requirements as of the date of permit issuance. The permit shield is based on the accuracy of the information supplied in the application for this permit. Under this shield, it has been determined that requirements listed as non-applicable in the application are not applicable to this source.</p>	Rule 335-3-16-.10

Summary Page for Two (2) Combined Cycle Combustion Turbines and Two (2) Heat Recovery Steam Generators with Duct Burners and Selective Catalytic Reduction (SCR)

Permitted Operating Schedule: 8760 Hrs/yr

Emission limitations:

Emission Point #	Description	Pollutant	Emission limit (per CT)	Regulation
001, 002	CT1, CT2, each w/duct burner & SCR	NO _x	0.009 lb/MMBtu & 24.6 lb/hr (3-hr rolling average) 15 ppm at 15% O ₂ or 0.43 lb/MWh (30-day rolling average) 96 ppm at 15% O ₂ or 4.7 lb/MWh when operating at a <75% load. (30-day rolling average)	ADEM Admin. Code r. 335-3-14-.04 (BACT) 40 CFR 60 Subpart KKKK Table 1
		CO ¹	0.073 lb/MMBtu & 194 lb/hr	ADEM Admin. Code r. 335-3-14-.04 (BACT)
		CO ²	0.022 lb/MMBtu & 59.6 lb/hr	ADEM Admin. Code r. 335-3-14-.04 (BACT)
		VOCs	0.0068 lb/MMBtu & 18.1 lb/hr	ADEM Admin. Code r. 335-3-14-.04 (BACT)
		PM	0.011 lb/MMBtu & 27.5 lb/hr	ADEM Admin. Code r. 335-3-14-.04 (BACT)
		SO ₂	0.0056 lb/MMBtu & 15.2 lb/hr (3-hr rolling average) 0.90 lb/MWh or 0.060 lb/MMBtu (3-hr rolling average)	ADEM Admin. Code r. 335-3-14-.04 (BACT) 40 CFR 60.4330(a)
		Sulfuric Acid Mist	0.00086 lb/MMBtu & 2.3 lb/hr	ADEM Admin. Code r. 335-3-14-.04 (BACT)
		Opacity	10% (6-min average)	ADEM Admin. Code r. 335-3-14-.04 BACT

¹ These limits are for times when combustion turbine/duct burner is in operation.

² These limits are for times when only the combustion turbine is being operated.

**Provisos for Two (2) Combined Cycle Combustion Turbines and
Two (2) Heat Recovery Steam Generators with Duct Burners
and Selective Catalytic Reduction (SCR)**

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<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 are subject to the applicable requirements of ADEM Admin. Code r. 335-3-14-.04, "Air Permits Authorizing Construction in Clean Air Areas [Prevention of Significant Deterioration]."	Rule 335-3-14-.04
3. The two (2) natural gas-fired combustion turbines are subject to the NSPS regulations for Stationary Gas Turbines, 40 CFR Part 60 Subpart KKKK.	Rule 335-3-10-.02(89) 40 CFR 60.4305(a)
5. The turbines and duct burners are subject to the applicable requirements of Subpart A, the General Provision of 40 CFR Part 60.	Rule 335-3-10-.02(1)
6. These units are subject to the Acid Rain Rules contained in Rule 335-3-18 and 40 CFR Part 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. 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. The nitrogen oxide emission rate from each combined turbine/duct burner stack shall not exceed 0.009 lb/MMBtu and 24.6 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)

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2. The nitrogen oxide emission rate from each combined turbine/duct burner stack shall not exceed 15 ppm (at 15% O ₂) or 0.43 lb/MWh of useful output. The nitrogen oxide emission rate shall not exceed 96 ppm (at 15% O ₂) or 4.7 lb/MWh of useful output when operating at a level less than 75% load. Both of these limits apply on a 30-day rolling average basis.	Rule 335-3-10-.02(89) 40 CFR 60 Subpart KKKK, Table 1
3. The carbon monoxide emission rate from each combined turbine/duct burner stack shall not exceed 0.073 lb/MM Btu and 194 lb/hr. When firing the combustion turbine only, the carbon monoxide emission rate from each combined turbine/duct burner stack shall not exceed 0.022 lb/MM Btu and 59.6 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 0.0068 lb/MM Btu and 18.1 lb/hr.	Rule 335-3-14-.04 (BACT)
5. The particulate matter emission rate from each combined turbine/duct burner stack shall not exceed 0.011 lb/MMBtu and 27.5 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 sulfur dioxide emission rate from each combined turbine/duct burner stack shall not exceed 0.90 lb/MWh gross output or fuel burned in the combustion turbine must not contain total potential sulfur emissions in excess of 26 ng SO ₂ /J (0.060 lb SO ₂ /MMBtu) heat input.	Rule 335-3-10-.02(89) 40 CFR 60.4330
8. The sulfur dioxide emission rate from each combined turbine/duct burner stack shall not exceed 0.0056 lb/MWh and 15.2 lb/hr.	Rule 335-3-14-.04 (BACT)
9. The sulfuric acid mist emission rate from each combined turbine/duct burner stack shall not exceed 0.00086 lb/MMBtu and 2.3 lb/hr.	Rule 335-3-14-.04 (BACT)
10. Exceptions to the Rules and Regulations for provisos 1-9 above are granted for startup, shutdown, load change, and maintenance as defined below: (a) Startup – The period from when the combustion turbine is started until it reaches the minimum load last approved by the Department. This period shall be readily identifiable on the load chart recording.	Rule 335-3-4-.01(c)

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<p>(b) Shutdown – The period from when the combustion turbine is shutting down from the minimal load last approved by the Department to 0% load. This period shall be readily identifiable on the load chart recording.</p> <p>(c) Load Change – A rapid change in the electrical loading of a unit that is readily identifiable on the load chart recording.</p> <p>The permittee shall take all reasonable actions to minimize the magnitude and duration of emissions during the periods listed above.</p>	
<p>11. All emission limits (lb/MMBtu) are base on the Higher Heating Value (HHV).</p>	<p>Rule 335-3-14-.04 (BACT)</p>
<p>12. The turbines and duct burners shall fire only natural gas.</p>	<p>Rule 335-3-14-.04 (BACT)</p>
<p>13. The combined hours of operation for power augmentation with duct firing, power augmentation alone, and duct firing alone shall not exceed 5,000 hours in any consecutive 12-month period.</p>	<p>Rule 335-3-14-.04 (BACT)</p>
<p>14. 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>
<p>15. These combustion turbines shall not be operated at a load less than that designated as 45% except during periods of startup or shutdown or under the following conditions. Each turbine may operate at a load below 45%, if compliance with the emission standards in this permit has been verified by compliance tests and the owner or operator has completed ambient air modeling confirming that all ambient air standards would be met at the minimum load tested. The Department must approve in writing any change to the previously approved lowest load of a turbine prior to operating at such load.</p>	<p>Rule 335-3-14-.04 (BACT)</p>
<p><u>Compliance and Performance Test Methods and Procedures</u></p>	
<p>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 and 2 of the Emission Standards section. Method 20 of Appendix A in 40 CFR Part 60 may also be used to determine the nitrogen oxides and oxygen concentrations.</p>	<p>Rule 335-3-10-.02(89) 40 CFR 60.4335 Rule 335-3-14-.04 (BACT)</p>

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2. Method 9 of Appendix A in 40 CFR Part 60 shall be used in the determination of compliance with the opacity standard.	Rule 335-3-1-.05(1)
3. Method 10 of Appendix A in 40 CFR Part 60 shall be used in the determination of compliance with the carbon monoxide emissions standards.	Rule 335-3-1-.05(1)
4. Method 5 or 17 of Appendix A in 40 CFR Part 60 shall be used in the determination of compliance with the particulate matter emissions standard.	Rule 335-3-1-.05(1)
5. Method 25, 25A, or 25B of Appendix A in 40 CFR Part 60 shall be used in the determination of compliance with the volatile organic compounds emissions standards.	Rule 335-3-1-.05(1)
6. Method 6 of Appendix A in 40 CFR Part 60 shall be used in the determination of compliance with the sulfur dioxide emissions standards. Testing for sulfuric acid mist is not required if compliance with the sulfur dioxide emission limit in Emission Standards Proviso 8 is demonstrated.	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 the stationary combustion turbines, 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.	Rule 335-3-10-.02(89) 40 CFR 60.4333
9. If complying with the fuel based SO ₂ standard in Proviso 7 of the Emission Standards section, the owner or operator may use one of the following options:	Rule 335-3-10-.02(89) 40 CFR 60.4360
(a) Analyze the sulfur content of the fuel using ASTM D1072, or alternatively D3246, D4048, D4468, D4810, D6228, D6667, or Gas Processors Association Standard 2377;	40 CFR 60.4415(a)

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- (b) 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 26 ng SO₂/J (0.060 lb SO₂/MMBtu) heat input;
- (c) 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
- (d) Representative fuel sampling data which show that the sulfur content of the fuel does not exceed 26 ng SO₂/J (0.060 lb SO₂/MMBtu) heat input. At a minimum, the amount of fuel sampling data specified in section 2.3.1.4 or 2.3.2.4 of appendix D to part 75 of this chapter is required.

40 CFR 60.4365(a)

40 CFR 60.4370(c)(1)

40 CFR 60.4365(b)

Emission Monitoring

- 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 in emission standard 1 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)

NO_x:

- (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

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(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 (%):

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

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

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

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

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

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<p>monitored to the required reporting standard will be provided with the first quarter report of each calendar year.</p>	
<p>NOTE: The annual average emission rate of NO_x, in lb/MMBtu, and total heat input (MMBtu) loaded to each unit (turbine, duct burner) will be reported with the 4th Quarter report.</p>	
<p>2. Records of monthly and rolling 12-month hours of operation in power augmentation with duct burning, power augmentation alone, and duct firing alone shall be maintained in a form suitable for inspection for a period of at least two years.</p>	<p>Rule 335-3-14-.04 (BACT)</p>
<p>3. The facility shall comply with the recordkeeping and reporting requirements of CSAPR. Rules 335-3-5-.31, 335-3-5-.35, 335-3-8-.33, 335-3-8-.37, 335-3-8-.65, and 335-3-8-.69.</p>	<p>Rules 335-3-5-.31, 335-3-5-.35, 335-3-8-.33, 335-3-8-.37, 335-3-8-.65, and 335-3-8-.69</p>
<p><u>Acid Rain Requirements</u></p>	
<p>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.</p>	<p>Rule 335-3-18 40 CFR Parts 72 and 75</p>
<p><u>CSAPR Requirements</u></p>	
<p>1. These units are subject to the applicable provisions of Cross-State Air Pollution Rule (CSAPR) to include all applicable provisions of the SO₂ Group 2 Trading Program requirements.</p>	<p>Rules 335-3-5-.06 through 335-3-5-.36</p>
<p>2. These units are subject to the applicable provisions of Cross-State Air Pollution Rule (CSAPR) to include all applicable provisions of the NO_x Annual Trading Program requirements.</p>	<p>Rules 335-3-8-.07 through 335-3-8-.70</p>

Summary Page for 11.64 MMBtu/hr Indirect-fired Fuel Heater

Permitted Operating Schedule: 8760 Hrs/yr

Emission limitations:

Emission Point #	Description	Pollutant	Emission limit (per CT)	Regulation
003	11.64 MMBtu/hr Fuel Heater	NOx	0.13 lb/MMBtu & 1.6 lb/hr	ADEM Admin. Code r. 335-3-14-.04 BACT
		CO	0.081 lb/MMBtu & 0.94 lb/hr	ADEM Admin. Code r. 335-3-14-.04 BACT
		PM	Unit shall only fire pipeline quality natural gas.	ADEM Admin. Code r. 335-3-14-.04 BACT
		SO ₂	Unit shall only fire pipeline quality natural gas.	ADEM Admin. Code r. 335-3-14-.04 BACT

Provisos for 11.64 MMBtu/hr Indirect-fired Fuel Heater

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<u>Applicability</u>	
1. This source is subject to the applicable requirements of ADEM Admin. Code r. 335-3-16, "Major Source Operating Permits."	Rule 335-3-16
2. This source are subject to the applicable requirements of ADEM Admin. Code r. 335-3-14-.04, "Air Permits Authorizing Construction in Clean Air Areas [Prevention of Significant Deterioration]."	Rule 335-3-14-.04
3. The indirect-fired fuel heater is subject to the NSPS regulations for Small Industrial-Commercial-Institutional Steam Generating Units, 40 CFR Part 60, Subpart D _c .	Rule 335-3-10-.02(2)(c) 40 CFR 60.40c(a), Subpart D _c
<u>Emission Standards</u>	
1. The nitrogen oxide emission rate from the fuel heater stack shall not exceed 0.13 lb/MMBtu and 1.6 lb/hr.	Rule 335-3-14-.04 (BACT)
2. The carbon monoxide emission rate from the fuel heater shall not exceed 0.081 lb/MM Btu and 0.94 lb/hr.	Rule 335-3-14-.04 (BACT)
3. The fuel heater shall only fire pipeline quality natural gas.	Rule 335-3-14-.04 (BACT)
4. The PM emission rate shall not exceed the allowable as determined by the equation contained in ADEM Admin. Code r. 335-3-4-.03(1).	Rule 335-3-4-.03(1)
5. The SO ₂ emission rate shall not exceed 4.0 lb/MMBtu.	Rule 335-3-5-.01(1)(b)
<u>Compliance and Performance Test Methods and Procedures</u>	
1. Method 20 of Appendix A in 40 CFR Part 60 shall be used in the determination of compliance with the nitrogen oxides emissions standards.	Rule 335-3-1-.05(1)
2. Method 9 of Appendix A in 40 CFR Part 60 shall be used in the determination of compliance with the opacity standard.	Rule 335-3-1-.05(1)
3. Method 10 of Appendix A in 40 CFR Part 60 shall be used in the determination of compliance with the carbon monoxide emissions standards.	Rule 335-3-1-.05(1)

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4. Method 5 or 17 of Appendix A in 40 CFR Part 60 shall be used in the determination of compliance with the particulate matter emissions standard.	Rule 335-3-1-.05(1)
5. Method 25, 25A, or 25B of Appendix A in 40 CFR Part 60 shall be used in the determination of compliance with the volatile organic compounds emissions standards.	Rule 335-3-1-.05(1)
6. Method 6 of Appendix A in 40 CFR Part 60 shall be used in the determination of compliance with the sulfur dioxide emissions standards.	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)
<u>Emission Monitoring</u>	
1. There are no source specific emissions monitoring provisions for this unit.	N/A
<u>Recordkeeping and Reporting Requirements</u>	
1. The permittee must record and maintain records of the amount of each fuel combusted in this unit during each calendar month in a form suitable for inspection for a period of at least two years following the date of generation.	40 CFR 60.48c(g)(2) 40 CFR 60.48(i)

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:

Emission Point #	Description	Pollutant	Emission limit	Regulation
004	805 HP Diesel Fired Emergency Firewater Pump	PM	N/A	N/A
004	805 HP Diesel Fired Emergency Firewater Pump	SO ₂	N/A	N/A
004	805 HP Diesel Fired Emergency Firewater Pump	NO _x	N/A	N/A
004	805 HP Diesel Fired Emergency Firewater Pump	CO	N/A	N/A
004	805 HP Diesel Fired Emergency Firewater Pump	VOC	N/A	N/A
004	805 HP Diesel Fired Emergency Firewater Pump	Opacity	See General Provisos	Rule 335-3-4-.01(1)

*Operating hours limited to 100 hrs/yr in non-emergency situations

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 40 CFR Part 63 Subpart ZZZZ, “National Emission Standards for Hazardous Air Pollutants for Reciprocating Internal Combustion Engines (RICE)”.	40 CFR 63.6585
3. This source is subject to the applicable requirements of Subpart A of 40 CFR Part 63, "General Provisions" as listed in Table 8 of Subpart ZZZZ.	40 CFR 63.6665
<u>Emission Standards</u>	
1. This source is subject to the applicable requirements listed in Table 2d of 40 CFR 63 Subpart ZZZZ—National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines.	40 CFR 63.6603
2. 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)(3)
3. The firewater pump shall be equipped with a non-resettable hour meter.	40 CFR 63.6625(f)
4. 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 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	40 CFR 63.6640(f)

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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 63 Subpart ZZZZ, is prohibited.

Compliance and Performance Test Methods and Procedures

- 1. Method 9 of 40 CFR (Latest Edition) Part 60, Appendix A shall be used in the determination of the 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 Part 63
Subpart ZZZZ, Table 2d
40 CFR 63.6625(i)

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

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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)

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 or according to manufacturer's written instructions.

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.

40 CFR 63.6655(f)

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Phase II Acid Rain Permit

Issued by: Alabama Department of Environmental Management
Issued to: Hillabee Power Plant
Operated by: CER Generation, LLC
ORIS Code: 55411
Effective: DRAFT

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. 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:

		2022	2023	2024	2025	2026
CT-1	SO ₂ allowances, under 40 CFR part 73 [tons]	NA ¹	NA ¹	NA ¹	NA ¹	NA ¹
	NO _x limit [lb/MMBtu]	≈2	≈2	≈2	≈2	≈2

		2022	2023	2024	2025	2026
CT-2	SO ₂ allowances, under 40 CFR part 73 [tons]	NA ¹	NA ¹	NA ¹	NA ¹	NA ¹
	NO _x limit [lb/MMBtu]	≈2	≈2	≈2	≈2	≈2

1 Currently there are no SO₂ 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 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 Combustion Turbine Units CT-1, CT-2.

3) Comments, Notes, and Justifications: This facility consists of two combined cycle 229 MW (nominal) Natural Gas Fired Combustion Turbines each with a Natural Gas Fired 196 MMBtu/hr (HHV) Duct Burner and Heat Recovery Steam Generator. The Heat Recovery Steam Generators supply steam to a 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:

Action	Date
1. Draft permit prepared and submitted for public review and comment.	March 22, 2011
2. Permit finalized and issued.	May 9, 2011
3. Draft permit prepared and submitted for public review and comment.	January 20, 2017
4. Permit finalized and issued.	March 7, 2017
5. Draft permit prepared and submitted for public review and comment.	TBD
6. Permit finalized and issued.	TBD

Ronald W. Gore, Chief
Air Division

Date