Alabama Department of Environmental Management

MAJOR SOURCE OPERATING PERMIT

Permittee: **PowerSouth Energy Cooperative**

Facility Name: **McWilliams Power Plant**

Facility No.: 603-0001

Location: Andalusia, Covington 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: *TBD*

Effective Date: *TBD*

Expiration Date: *TBD*

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APPENDIX A.....42

ACID RAIN PERMIT.....ATTACHED

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1. Transfer	
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.	Rule 335-3-16-.02(6)
2. Renewals	
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.	Rule 335-3-16-.12(2)
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.	
3. Severability Clause	
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.	Rule 335-3-16-.05(e)
4. Compliance	
(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.	Rule 335-3-16-.05(f)
(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	Rule 335-3-16-.05(g)

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or reducing the permitted activity.	
5. Termination for Cause	
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.	Rule 335-3-16-.05(h)
6. Property Rights	
The issuance of this permit does not convey any property rights of any sort, or any exclusive privilege.	Rule 335-3-16-.05(i)
7. Submission of Information	
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.	Rule 335-3-16-.05(j)
8. Economic Incentives, Marketable Permits, and Emissions Trading	
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.	Rule 335-3-16-.05(k)
9. Certification of Truth, Accuracy, and Completeness:	
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.	Rule 335-3-16-.07(a)
10. Inspection and Entry	

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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:	Rule 335-3-16-.07(b)
(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.	
11. <u>Compliance Provisions</u>	
(a) The permittee shall continue to comply with the applicable requirements with which the company has certified that it is already in compliance.	Rule 335-3-16-.07(c)
(b) The permittee shall comply in a timely manner with applicable requirements that become effective during the term of this permit.	
12. <u>Compliance Certification</u>	
A compliance certification shall be submitted yearly no later than December 31st unless more frequent periods are specified according to the specific rule governing the source or required by the Department. The compliance certification shall cover the reporting period of November 1st through October 31st of each year.	Rule 335-3-16-.07(e)
(a) The compliance certification shall include the following:	

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(1) The identification of each term or condition of this permit that is the basis of the certification; (2) The compliance status; (3) The method(s) used for determining the compliance status of the source, currently and over the reporting period consistent with Rule 335-3-16-.05(c) (Monitoring and Recordkeeping Requirements); (4) Whether the methods(s) or other means used to assure compliance provided continuous or intermittent data; (5) Such other facts as the Department may require to determine the compliance status of the source; (b) The compliance certification shall be submitted to: Alabama Department of Environmental Management Air Division P.O. Box 301463 Montgomery, AL 36130-1463 and to: Enforcement and Compliance Assurance Division EPA Region 4 Atlanta Federal Center 61 Forsyth Street, SW Atlanta, GA 30303	
13. <u>Reopening for Cause</u> Under any of the following circumstances, this permit will be reopened prior to the expiration of the permit: (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	Rule 335-3-16-.13(5)

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expire. (b) Additional requirements (including excess emissions requirements) become applicable to an affected source under the acid rain program. Upon approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into this permit. (c) The Department or EPA determines that this permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of this permit. (d) The Administrator or the Department determines that this permit must be revised or revoked to assure compliance with the applicable requirements.	
14. <u>Additional Rules and Regulations</u> 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.	§22-28-16(d), Code of Alabama 1975, as amended
15. <u>Equipment Maintenance or Breakdown</u> (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: (1) Identification of the specific facility to be taken out of service as well as its location and permit number; (2) The expected length of time that the air pollution control equipment will be out of service;	Rule 335-3-1-.07(1), (2)

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(3) The nature and quantity of emissions of air contaminants likely to occur during the shutdown period; (4) Measures such as the use of off-shift labor and equipment that will be taken to minimize the length of the shutdown period; (5) The reasons that it would be impossible or impractical to shut down the source operation during the maintenance period. (b) Unless otherwise specified in the Unit Specific provisos of this permit, in the event that there is a breakdown of equipment or upset of process in such a manner as to cause, or is expected to cause, increased emissions of air contaminants which are above an applicable standard, the person responsible for such equipment shall notify the Director within 24 hours or the next working day and provide a statement giving all pertinent facts, including the estimated duration of the breakdown. The Director shall be notified when the breakdown has been corrected.	
16. <u>Operation of Capture and Control Devices</u> 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.	§22-28-16(d), Code of Alabama 1975, as amended
17. <u>Obnoxious Odors</u> 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.	Rule 335-3-1-.08

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18. <u>Fugitive Dust</u>	
(a) Reasonable precautions shall be taken to prevent fugitive dust emanating from plant roads, grounds, stockpiles, screens, dryers, hoppers, ductwork, etc.	Rule 335-3-4-.02
(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: (1) By the application of water any time the surface of the road is sufficiently dry to allow the creation of dust emissions by the act of wind or vehicular traffic; (2) By reducing the speed of vehicular traffic to a point below that at which dust emissions are created; (3) By paving; (4) By the application of binders to the road surface at any time the road surface is found to allow the creation of dust emissions;	
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.	
19. <u>Additions and Revisions</u>	
Any modifications to this source shall comply with the modification procedures in Rules 335-3-16-.13 or 335-3-16-.14.	Rule 335-3-16-.13 and .14
20. <u>Recordkeeping Requirements</u>	
(a) Records of required monitoring information of the source shall include the following:	Rule 335-3-16-.05(c)2

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(1) The date, place, and time of all sampling or measurements; (2) The date analyses were performed; (3) The company or entity that performed the analyses; (4) The analytical techniques or methods used; (5) The results of all analyses; and (6) The operating conditions that existed at the time of sampling or measurement. (b) Retention of records of all required monitoring data and support information of the source for a period of at least 5 years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation and copies of all reports required by the permit	
21. <u>Reporting Requirements</u>	
(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).	Rule 335-3-16-.05(c)3
(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.	
22. <u>Emission Testing Requirements</u>	
Each point of emission which requires testing will be provided with sampling ports, ladders, platforms, and other safety equipment to facilitate testing performed in	Rule 335-3-1-.05(3) and Rule 335-3-1-

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accordance with procedures established by Part 60 of Title 40 of the Code of Federal Regulations, as the same may be amended or revised.	.04(1)
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.	
To avoid problems concerning testing methods and procedures, the following shall be included with the notification letter:	
(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.	Rule 335-3-1-.04
(2) A complete description of each sampling train to be used, including type of media used in determining gas stream components, type of probe lining, type of filter media, and probe cleaning method and solvent to be used (if test procedures require probe cleaning).	
(3) A description of the process(es) to be tested including the feed rate, any operating parameters used to control or influence the operations, and the rated capacity.	
(4) A sketch or sketches showing sampling point locations and their relative positions to the nearest upstream and downstream gas flow disturbances.	
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.	Rule 335-3-1-.04
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.	
23. <u>Payment of Emission Fees</u>	
Annual emission fees shall be remitted each year according to the fee schedule in ADEM Admin. Code R. 335-1-7-.04.	Rule 335-1-7-.04

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24. Other Reporting and Testing Requirements	
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.	Rule 335-3-1-.04(1)
25. Title VI Requirements (Refrigerants)	
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. 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. 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.	40 CFR Part 82
26. Chemical Accidental Prevention Provisions	
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: (a) The owner or operator shall comply with the provisions in 40 CFR Part 68. (b) The owner or operator shall submit one of the following: (1) A compliance schedule for meeting the requirements of 40 CFR 68 by the date provided in 40 CFR 68.10(a) or, (2) A certification statement that the source is in	40 CFR Part 68

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compliance with all requirements of 40 CFR Part 68, including the registration and submission of the Risk Management Plan.	
27. Display of Permit	
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.	Rule 335-3-14-.01(1)(d)
28. Circumvention	
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.	Rule 335-3-1-.10
29. Visible Emissions	
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.	Rule 335-3-4-.01(1)
30. Fuel-Burning Equipment	
(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.	Rule 335-3-4-.03
(b) Unless otherwise specified in the Unit Specific provisos of this permit, no fuel-burning equipment may discharge sulfur dioxide emissions in excess of the emissions specified in Rule 335-3-5-.01.	Rule 335-3-5-.01
31. Process Industries – General	
Unless otherwise specified in the Unit Specific provisos of this permit, no process may discharge particulate emissions	Rule 335-3-4-.04

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in excess of the emissions specified in Rule 335-3-4-.04.	
32. Averaging Time for Emission Limits	
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.	Rule 335-3-1-.05
33. Compliance Assurance Monitoring (CAM)	
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.	
(a) Operation of Approved Monitoring	40 CFR 64.7
(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).	
(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.	
(3) Continued operation. Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the owner or operator shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutant-specific emissions unit is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of this part, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable. The	

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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. (4) Response to excursions or exceedances. (a) Upon detecting an excursion or exceedance, the owner or operator shall restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable. (b) Determination of whether the owner or operator has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include but is not limited to, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process. (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	

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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.	
(b) Quality Improvement Plan (QIP) Requirements	40 CFR 64.8
(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.	
(2) Elements of a QIP:	
A. The owner or operator shall maintain a written QIP, if required, and have it available for inspection.	
B. The plan initially shall include procedures for evaluating the control performance problems and, based on the results of the evaluation procedures, the owner or operator shall modify the plan to include procedures for conducting one or more of the following actions, as appropriate:	

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(i) Improved preventive maintenance practices. (ii) Process operation changes. (iii) Appropriate improvements to control methods. (iv) Other steps appropriate to correct control performance. (v) More frequent or improved monitoring (only in conjunction with one or more steps under paragraphs (2)(b)(i) through (iv) above). (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. (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: A. Failed to address the cause of the control device performance problems; or B. Failed to provide adequate procedures for correcting control device performance problems as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. (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.	
(c) Reporting and Recordkeeping Requirements (1) General reporting requirements	40 CFR 64.9

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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. 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: (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; (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 (iii) A description of the actions taken to implement a QIP during the reporting period as specified in Section 33(b) above. Upon completion of a QIP, the owner or operator shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring. (2) General recordkeeping requirements. 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	

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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).	
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.	
(d) Savings Provisions	40 CFR 64.10
(1) Nothing in this part shall:	
A. Excuse the owner or operator of a source from compliance with any existing emission limitation or standard, or any existing monitoring, testing, reporting or recordkeeping requirement that may apply under federal, state, or local law, or any other applicable requirements under the Act. The requirements of this part shall not be used to justify the approval of monitoring less stringent than the monitoring which is required under separate legal authority and are not intended to establish minimum requirements for the purpose of determining the monitoring to be imposed under separate authority under the Act, including monitoring in permits issued pursuant to title I of the Act. The purpose of this part is to require, as part of the issuance of a permit under title V of the Act, improved or new monitoring at those emissions units where monitoring requirements do not exist or are inadequate to meet the requirements of this part.	
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.	
C. Restrict or abrogate the authority of the Department to take any enforcement action	

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under the Act for any violation of an applicable requirement or of any person to take action under section 304 of the Act.	
34. <u>Emissions Inventory Reporting Requirements</u>	
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.	Rule 335-3-1-.15
35. <u>Permit Shield</u>	
A permit shield exists under this operating permit in accordance with ADEM Admin. Code 335-3-16-.10 in that compliance with the conditions of this permit shall be deemed in compliance with any applicable requirements as of the date of permit issuance. The permit shield is based on the accuracy of the information supplied in the application for this permit. Under this shield, it has been determined that requirements listed as non-applicable in the application are not applicable to this source.	Rule 335-3-16-.10

Summary Page for 106 MW Natural Gas/Distillate Fuel Oil Fired Combustion Turbine with a 83.3 MMBtu/hr Natural Gas Fired Duct Burner and Heat Recovery Steam Generator

Permitted Operating Schedule: 8760 Hrs/yr

Emission limitations:

Emission Point #	Description	Pollutant	Emission limit	Regulation
004	McWilliams Unit 4	NO_x from the Combustion Turbine during **non-peak load** operation	25 ppmv and 118 lb/hr while firing natural gas in premix mode 42 ppmv and 198 lb/hr while firing natural gas in the diffusion mode 65 ppmv and 307 lb/hr while firing fuel oil	Rule 335-3-14-.04 BACT
004	McWilliams Unit 4	NO_x from the Combustion Turbine during **peak load** operation	42 ppmv while firing natural gas 88 ppmv while firing fuel oil	Rule 335-3-14-.04 BACT
004	McWilliams Unit 4	NO_x	CT: 75 ppmv with an upward adjustment for heat rate and fuel bound nitrogen	40 CFR 60.332
004	McWilliams Unit 4	NOx	DB: 0.1 lb/MMBtu & 8.3 lb/hr	Rule 335-3-14-.04 BACT
004	McWilliams Unit 4	SO_2	0.05% Sulfur content of fuel oil 150 ppmvd at 15% O_2 or 0.8% Sulfur content for all fuels	Rule 335-3-14-.04 (Anti-PSD) 40 CFR 60.333
004	McWilliams Unit 4	CO	CT: 100 ppmvd & 194 lb/hr DB: 0.08 lb/MMBtu & 6.6 lb/hr	Rule 335-3-14-.04 BACT
004	McWilliams Unit 4	VOC	CT: 15 ppmvd & 21.5 lb/hr DB: 0.03 lb/MMBtu & 2.5 lb/hr	Rule 335-3-14-.04 BACT
004	McWilliams Unit 4	PM	CT – Natural Gas: 0.013 lb/MMBtu & 16.7 lb/hr CT – Fuel Oil: 0.017 lb/MMBtu & 22.1 lb/hr DB: 0.015 lb/MMBtu & 1.3 lb/hr	Rule 335-3-14-.04 BACT
004	McWilliams Unit 4	Opacity	10%	Rule 335-3-14-.04 BACT

Provisos for 106 MW Natural Gas/Distillate Fuel Oil Fired Combustion Turbine with a 83.3 MMBtu/hr Natural Gas Fired Duct Burner and Heat Recovery Steam Generator

	Federally Enforceable Provisos	Regulations
	Applicability	
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.	This source has enforceable limits for sulfur dioxide (SO_2) in place in order to prevent it from being subject to the provisions of ADEM Admin. Code r. 335-3-14-.04, "Air Permits Authorizing Construction in Clean Air Areas [Prevention of Significant Deterioration]".	Rule 335-3-14-.04 Anti-PSD
4.	The duct burner associated with this unit is subject to the provisions of 40 CFR 60 Subpart Dc – Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units.	Rule 335-3-10-.02(2)(c) 40 CFR Part 60, Subpart Dc, §60.40c
5.	The combustion turbine associated with this unit is subject to the provisions of 40 CFR 60 Subpart GG – Standards of Performance for Stationary Gas Turbines.	Rule 335-3-10-.02(33) 40 CFR Part 60, Subpart GG, §60.330
6.	This source is subject to the applicable requirements of Subpart A, the General Provisions of 40 CFR Part 60.	Rule 335-3-10-.02(1)
7.	Where an applicable requirement of the Act is more stringent than an applicable requirement of regulations promulgated under Title IV of the Act, both provisions are incorporated as enforceable conditions of this permit.	Rule 335-3-16-.05(a)2
8.	This source subject to the Acid Rain Rules contained in Rule 335-3-18 and 40 CFR Part 72, 73, and 75. The applicable Acid Rain Permit is contained in the Acid Rain portion of this Operating Permit.	Rule 335-3-18 40 CFR Parts 72, 73 and 75
9.	This source is subject to the applicable provisions of the Cross-State Air Pollution Rule found in ADEM Admin. Code r. 335-3-5-.06 through 335-3-5-.36 and ADEM Admin. Code r. 335-3-8-.07 through 335-3-8-.70.	Rules 335-3-5-.06 through 335-3-5-.36 and Rules 335-3-8-.07 through 335-3-8-.70
10.	This unit is subject to the applicable provisions of 40 CFR	40 CFR Part 64

Federally Enforceable Provisos	Regulations
Part 64, "Compliance Assurance Monitoring" for NO_x.	
11. This unit is subject to the applicable provisions of 40 CFR Part 98, "Mandatory Greenhouse Gas Reporting."	40 CFR Part 98
Emission Standards	
1. Except during peak load operation, the nitrogen oxides emissions from the combined combustion turbine/duct burner stack shall not exceed 25 ppmvd at 15% O_2 & 118 lbs/hr when burning natural gas in the premix mode, 42 ppmvd at 15% O_2 & 198 lb/hr when burning natural gas in the diffusion mode, and 65 ppmvd at 15% O_2 & 307 lb/hr when burning fuel oil.	Rule 335-3-14-.04(9)(b) BACT
2. During peak load operation the nitrogen oxide emission rate from the combined combustion turbine/duct burner stack shall not exceed 42 ppmvd at 15% O_2 when burning natural gas and 88 ppmvd at 15% O_2 when burning fuel oil.	Rule 335-3-14-.04(9)(b) BACT
3. The nitrogen oxide emission rate from the duct burner shall not exceed 0.1 lb/MMBtu and 8.3 lbs/hr.	Rule 335-3-14-.04(9)(b) BACT
4. The carbon monoxide emission rate from the combined combustion turbine/duct burner stack shall not exceed 100 ppmvd at 15% O_2 and 194 lbs/hr when firing natural gas or distillate fuel oil.	Rule 335-3-14-.04(9)(b) BACT
5. The carbon monoxide emission rate from the duct burner shall not exceed 0.08 lb/MMBtu and 6.6 lbs/hr.	Rule 335-3-14-.04(9)(b) BACT
6. The volatile organic compound emission rate from the combined combustion turbine/duct burner stack shall not exceed 15 ppmvd at 15% O_2 and 21.5 lbs/hr when firing natural gas or distillate fuel oil.	Rule 335-3-14-.04(9)(b) BACT
7. The volatile organic compound emission rate from the duct burner shall not exceed 0.03 lb/MMBtu and 2.5 lbs/hr.	Rule 335-3-14-.04(9)(b) BACT
8. The particulate matter emission rate from the combined combustion turbine/duct burner stack shall not exceed 0.013 lb/MMBtu and 16.7 lbs/hr when burning natural gas and 0.017 lb/MMBtu and 22.1 lb/hr when burning fuel oil.	Rule 335-3-14-.04(9)(b) BACT
9. The particulate matter emission rate from the duct burner shall not exceed 0.015 lb/MMBtu and 1.3 lb/hr.	Rule 335-3-14-.04(9)(b) BACT

Federally Enforceable Provisos	Regulations
10. Visible emission from the combined combustion turbine/duct burner stack shall not exceed 10% opacity.	Rule 335-3-14-.04(9)(b) BACT
11. The emission limits in Emission Standard conditions 1 through 10 apply at all times except during startup, shutdown, and load change as defined below: 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. 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. Load Change: A rapid change in the electrical loading of a unit that is readily identifiable on a load chart recording. All emissions from these units should be minimized to the greatest extent possible during load change, startup, and shutdown of this unit.	Rule 335-3-14-.03(1)(h) Rule 335-3-16-.11(1)
12. Except for periods of startup and shutdown, this source may operate at the lowest load for which the unit has been verified by compliance tests to meet the emission standards for carbon monoxide, nitrogen oxides, and volatile organic compounds, provided that ambient air modeling confirming that all ambient air standards would be met at the load tested has been completed. The Department must approve in writing of any change to the lowest load of the unit prior to operating at such load.	Rule 335-3-14-.04 BACT
13. The combustion turbine shall fire only natural gas and distillate fuel oil. The sulfur content of the distillate fuel oil shall not exceed 0.05% by weight. The duct burner shall fire only natural gas.	Rule 335-3-14-.04(9)(b) Anti-PSD
14. The Nitrogen Oxides emission limit when burning a mixture of natural gas and fuel oil will be computed using the following formula: $E = \frac{(H_g)(E_g) + (H_o)(E_o)}{Hg + Ho}$ Where E = NO_x emission limit (ppm) H_g = Heat input from natural gas (Btu)	Rule 335-3-14-.04(9)(b)

Federally Enforceable Provisos	Regulations
E_g = Natural gas emission limit (ppm) H_o = Heat input from fuel oil (Btu) E_o = Fuel oil emission limit (ppm)	
15. Nitrogen Oxides emissions from the combustion turbine shall not exceed 75 ppmv adjusted for heat rate and fuel bound nitrogen, based upon 4-hour rolling averages.	Rule 335-3-10-.02(33) 40 CFR 60.332
16. Sulfur dioxide emissions from the combustion turbine shall not exceed 150 ppmv on a dry basis at 15% oxygen or the sulfur content of all fuels burned in the combustion turbines shall not exceed 0.8% by weight.	Rule 335-3-10-.02(33) 40 CFR 60.333
17. Sulfur dioxide emissions from the duct burner shall not exceed 0.20 lb/MMBtu.	Rule 335-3-10-.02(2)(a) 40 CFR 60.42c
18. The combustion turbine shall not burn more than 8500 x 10^6 scf of natural gas and no more than 7.66 x 10^6 gallons of fuel oil in any consecutive 12-month period. The duct burner shall not burn more than 500 x 10^6 scf of natural gas in any consecutive 12-month period.	Rule 335-3-14-.04 BACT
19. 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)
<u>Compliance and Performance Test Methods and Procedures</u>	
1. Compliance with the Nitrogen Oxides emissions standards shall be determined by EPA Reference Method 20 or 7E and 3 or 3A as found in Appendix A of 40 CFR 60. Alternate methods may be utilized if approved in advance by the Department.	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. Alternate methods may be utilized if approved in advance by the Department.	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. Alternate methods may be utilized if approved in advance by the Department.	Rule 335-3-1-.05

Federally Enforceable Provisos	Regulations
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. Alternate methods may be utilized if approved in advance by the Department.	Rule 335-3-1-.05
5. Compliance with the sulfur dioxide emissions standards shall be determined by 40 CFR 75, Appendix D or by EPA Reference Method 6, 6A, or 6B, as found in Appendix A of 40 CFR 60. Alternate methods may be utilized if approved in advance by the Department.	Rule 335-3-1-.05
6. Compliance with the fuel sulfur content limits shall be determined by ASTM D129-91, D1552-90, D2622-92, D4294-90, D 1072-80 or 90 (Reapproved 1994), D 3031-81, D 40840-82 or 94, or D 3246-81, 92, or 96, or the latest editions or test methods approved by 40 CFR Part 75 (as currently incorporated or as amended). Alternate methods may be utilized if approved in advance by the Department.	Rule 335-3-1-.05
7. 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. A nitrogen oxide continuous emission monitoring system (CEMS) shall be utilized as an indicator of compliance with NO_x limitations. The CEMS shall continue to be operated at a location approved by the Director. The nitrogen oxide emission rate shall be monitored using a rolling three-hour average computed by the continuous emission monitor system. The CEMS shall meet the specifications and procedures of 40 CFR Part 75 and will be certified and maintained in accordance with 40 CFR Part 75.	Rule 335-3-14-.04 BACT 40 CFR Part 75 40 CFR Part 64
2. In lieu of the SO_2 monitoring requirements as found in 40 CFR 60.334, the procedures found in Appendix D of 40 CFR 75 may be used.	40 CFR 75.11
<u>Recordkeeping and Reporting Requirements</u>	
1. Records which document monthly and rolling 12-month total natural gas and fuel oil usage shall be maintained in a form suitable for inspection, shall be maintained for a period of at least five years following said recording, and shall be made available upon request.	Rule 335-3-14-.04

Federally Enforceable Provisos	Regulations
2. Records documenting the sulfur content of the fuel burned in this unit shall be kept at the facility in a form suitable for inspection for a period of at least five years following said recording.	Rule 335-3-16-.05(c)
3. Records documenting the load (MW) at which the turbine was operated (1-hour averages) and the mode in which it was operated (premix, diffusion) shall be kept at the facility in a form suitable for inspection for a period of at least five years following said recording.	Rule 335-3-16-.05(c)
4. 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), shall be submitted to the Department within thirty days of the end of each calendar quarter in the following format: **NOx** A. Source Operating Time (all times and periods in hours) B. Time Monitoring System was Able to Record Source Performance * C. Monitor Availability (%) = B/A x 100 D. Total Excess Emission Periods where the CEM data may indicate emissions above standards ** E. Overall Source Performance (%) = [(B - D)/B] x 100 F. Exempt Periods (as applicable) - F(x) F1 = Startup/Shutdown F2 = Load Change G. Net Excess Emissions – G(x) = D – F(x) H. Net Source Performance (%) - H(x): = [1 - (G(x)/(B - F(x)))] x 100 = [(B - F(x) - G(x))/(B - F(x))] x 100 I. Overall Exceedances (%) - Percent of time above the standard due to all reasons: = (D/B) x 100 J. Net Exceedances (%) - Percent of time above the standard due to non-exempt reasons: = [(B – $F_{(x)}$)/ B] x 100	Rule 335-3-16-.05(c)

Federally Enforceable Provisos	Regulations
K. Exempt Period Exceedances (%) – Percent of time above the standard due to an exempted reason SU/SD = $(F_1/B) \times 100$ Load Change = $(F_2/B) \times 100$	
* 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. 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. NOTE: Equations used to convert NO_x emission data as monitored to the required reporting standard (lb/MMBtu or ppm) will be provided with the first quarter report of each calendar year. NOTE: The annual average emission rate of NO_x in lb/MMBtu and total heat input (MMBtu) loaded to this unit will be reported with the 4th quarter report.	
5. The facility shall comply with the recordkeeping and reporting requirements of CSAPR. Rules 335-3-5-.31, 335-3-5-.35, 335-3-8-.33, 335-3-8-.37, 335-3-8-.65, and 335-3-8-.69.	Rules 335-3-5-.31, 335-3-5-.35, 335-3-8-.33, 335-3-8-.37, 335-3-8-.65, and 335-3-8-.69
6. The permittee shall comply with the recordkeeping and reporting requirements of the Mandatory Greenhouse Gas Reporting Rule in 40 CFR Part 98.	40 CFR Part 98
<u>Acid Rain Requirements</u>	
1. This unit is subject to the Acid Rain rules contained in Rule 335-3-18 and 40 CFR Parts 72, 73 and 75. Applicable Acid Rain permits are contained in the Acid Rain portion of this Operating Permit.	Rule 335-3-18 40 CFR Parts 72, 73 and 75
<u>CSAPR Requirements</u>	
1. These units are subject to the applicable provisions of Cross-State Air Pollution Rule (CSAPR) to include all applicable provisions of the SO_2 Group 2 Trading Program requirements.	Rules 335-3-5-.06 through 335-3-5-.36

Federally Enforceable Provisos		Regulations
2.	These units are subject to the applicable provisions of Cross-State Air Pollution Rule (CSAPR) to include all applicable provisions of the NOx Seasonal and Annual Trading Program requirements.	Rules 335-3-8-.06 through 335-3-8-.70

Summary Page for Two (2) 166 MW Natural Gas Fired Combustion Turbines each with Heat Recovery Steam Generators and Selective Catalytic Reduction (SCR)

Permitted Operating Schedule: 8760 Hrs/yr

Emission limitations:

Emission Point #	Description	Pollutant	Emission limit	Regulation
006A 006B	Vann Units 1 & 2	NO_x	0.013 lb/MMBtu & 26.2 lb/hr	Rule 335-3-14-.04 BACT
006A 006B	Vann Units 1 & 2	NO_x	75 ppmv with an upward adjustment for heat rate and fuel bound nitrogen	40 CFR 60.332
006A 006B	Vann Units 1 & 2	SO_2	Natural Gas Only 150 ppmvd at 15% O_2 or 0.8% Sulfur content	Rule 335-3-14-.04 BACT 40 CFR 60.333
006A 006B	Vann Units 1 & 2	CO	0.04 lb/MMBtu & 80.72 lb/hr	Rule 335-3-14-.04 BACT
006A 006B	Vann Units 1 & 2	VOC	0.004 lb/MMBtu & 8.37 lb/hr	Rule 335-3-14-.04 BACT
006A 006B	Vann Units 1 & 2	PM	0.012 lb/MMBtu & 22.2 lb/hr	Rule 335-3-14-.04 BACT
006A 006B	Vann Units 1 & 2	Opacity	10%	Rule 335-3-14-.04 BACT

Provisos for Two (2) 166 MW Natural Gas Fired Combustion Turbines each with Heat Recovery Steam Generators and Selective Catalytic Reduction (SCR)

Federally Enforceable Provisos	Regulations
Applicability	
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 combustion turbines associated with these units are subject to the provisions of 40 CFR 60 Subpart GG – Standards of Performance for Stationary Gas Turbines.	Rule 335-3-10-.02(33) 40 CFR Part 60, Subpart GG, §60.330
4. These sources are subject to the applicable requirements of Subpart A, the General Provision of 40 CFR Part 60.	Rule 335-3-10-.02(1)
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 Acid Rain Rules contained in Rule 335-3-18 and 40 CFR Part 72, 73, and 75. The applicable Acid Rain Permit is contained in the Acid Rain portion of this Operating Permit.	Rule 335-3-18 40 CFR Parts 72, 73, and 75
7. These sources are subject to the applicable provisions of the Cross-State Air Pollution Rule found in ADEM Admin. Code r. 335-3-5-.06 through 335-3-5-.36 and ADEM Admin. Code r. 335-3-8-.07 through 335-3-8-.70.	Rules 335-3-5-.06 through 335-3-5-.36 and Rules 335-3-8-.07 through 335-3-8-.70
8. These units are subject to the applicable provisions of 40 CFR Part 64, "Compliance Assurance Monitoring" for NOx.	40 CFR Part 64
9. These units are subject to the applicable provisions of 40 CFR Part 98, "Mandatory Greenhouse Gas Reporting."	40 CFR Part 98
Emission Standards	
1. Nitrogen oxides emissions from each combustion turbine shall not exceed 0.013 lb/MMBtu and 26.2 lb/hr.	Rule 335-3-14-.04(9)(b) BACT

Federally Enforceable Provisos	Regulations
2. Carbon monoxide emissions from each combustion turbine shall not exceed 0.04 lb/MMBtu and 80.72 lb/hr.	Rule 335-3-14-.04(9)(b) BACT
3. Volatile organic compounds emissions from each combustion turbine shall not exceed 0.004 lb/MMBtu and 8.37 lbs/hr.	Rule 335-3-14-.04(9)(b) BACT
4. Particulate matter emissions from each combustion turbine shall not exceed 0.012 lb/MMBtu and 22.2 lbs/hr.	Rule 335-3-14-.04(9)(b) BACT
5. Visible emission from each combustion turbine stack shall not exceed 10% opacity.	Rule 335-3-14-.04(9)(b) BACT
6. The emission standards in Provisos 1 through 5 above apply at all times except during periods of startup, shutdown, and load change. 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. 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. Load Change: A rapid change in the electrical loading of a unit that is readily identifiable on a load chart recording. All emissions from these units should be minimized to the greatest extent possible during load change, startup, and shutdown of the units.	Rule 335-3-14-.03(1)(h) Rule 335-3-16-.11(1)
7. Each combustion turbine unit may operate at the lowest load for which the unit has been verified by compliance tests to meet the emission standards for carbon monoxide, nitrogen oxides, and volatile organic compounds, provided that ambient air modeling confirming that all ambient air standards would be met at the load tested has been completed. The Department must approve in writing of any change to the lowest load of the unit prior to operating at such load.	Rule 335-3-14-.03(1)(h)
8. Each combustion turbine unit shall fire only natural gas.	Rule 335-3-14-.04(9)(b) BACT
9. Nitrogen Oxides emissions from each combustion turbine unit shall not exceed 75 ppmv adjusted for heat rate and fuel bound nitrogen, based upon 4-hour rolling averages.	Rule 335-3-10-.02(33) 40 CFR 60.333

Federally Enforceable Provisos	Regulations
10. Sulfur dioxide emissions from the each combustion turbine unit shall not exceed 150 ppmv on a dry basis at 15% oxygen or the sulfur content of all fuels burned in the combustion turbines shall not exceed 0.8% by weight.	Rule 335-3-10-.02(33) 40 CFR 60.332
11. 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)
<u>Compliance and Performance Test Methods and Procedures</u>	
1. Compliance with the Nitrogen Oxides emissions standards shall be determined by EPA Reference Method 20 or 7E and 3 or 3A as found in Appendix A of 40 CFR 60. Alternate methods may be utilized if approved in advance by the Department.	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. Alternate methods may be utilized if approved in advance by the Department.	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. Alternate methods may be utilized if approved in advance by the Department.	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. Alternate methods may be utilized if approved in advance by the Department.	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
<u>Emission Monitoring</u>	
1. A nitrogen oxide continuous emission monitoring system (CEMS) shall be utilized as an indicator of compliance with NO_x limitations. The CEMS shall continue to be operated at a location approved by the Director. The nitrogen oxide emission rate shall be monitored using a rolling three-hour average computed by the continuous emission monitor system. The CEMS shall meet the specifications and procedures of 40 CFR Part 75 and will be certified and maintained in accordance with 40 CFR Part 75.	Rule 335-3-14-.04 BACT 40 CFR Part 75 40 CFR Part 64
2. A carbon monoxide continuous emission monitoring system (CEMS) shall be utilized as an indicator of compliance with the	Rule 335-3-16-.05(c)

Federally Enforceable Provisos	Regulations
CO and VOC emission limitations. CO emissions, as indicated by the CO CEMS, shall be no greater than the permitted limits, based upon rolling 3-hour periods. The CO CEMS shall meet the specifications and procedures of 40 CFR Part 60.	
Recordkeeping and Reporting Requirements	
1. Records documenting the load (MW) at which the turbine was operated (1-hour averages) shall be kept at the facility in a form suitable for inspection for a period of at least five years following said recording.	Rule 335-3-16-.05(c)
2. An excess emissions report for each unit as defined by 40 CFR Part 60 , Subpart A, §60.7(c) and (d), and 40 CFR 60.334 shall be submitted to the Department within thirty days of the end of each calendar quarter in the following format: **NOx and CO:** A. Source Operating Time (all times and periods in hours) B. Time Monitoring System was Able to Record Source Performance * C. Monitor Availability (%) = B/A x 100 D. Total Excess Emission Periods where the CEM data may indicate emissions above standards ** E. Overall Source Performance (%) = [(B - D)/B] x 100 F. Exempt Periods (as applicable) - F(x) F1 = Startup/Shutdown F2 = Load Change G. Net Excess Emissions – G(x) = D – F(x) H. Net Source Performance (%) - H(x): = [1 - (G(x)/(B - F(x)))] x 100 = [(B - F(x) - G(x))/(B - F(x))] x 100 I. Overall Exceedances (%) - Percent of time above the standard due to all reasons: = (D/B) x 100 J. Net Exceedances (%) - Percent of time above the standard due to non-exempt reasons: = [$(B - F_{(x)})/ B$] x 100	Rule 335-3-16-.05(c) and Rule 335-3-1-.04

Federally Enforceable Provisos	Regulations
K. Exempt Period Exceedances (%) – Percent of time above the standard due to an exempted reason SU/SD = $(F_1/B) \times 100$ Load Change = $(F_2/B) \times 100$	
* 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. 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.	
NOTE: Equations used to convert NO_x emission data as monitored to the required reporting standard (lb/MMBtu or ppm) will be provided with the first quarter report of each calendar year.	
NOTE: The annual average emission rate of NO_x in lb/MMBtu and total heat input (MMBtu) loaded to this unit will be reported with the 4th quarter report.	
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.	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
4. The permittee shall comply with the recordkeeping and reporting requirements of the Mandatory Greenhouse Gas Reporting Rule in 40 CFR Part 98.	40 CFR Part 98
<u>Acid Rain Requirements</u>	
1. These units are subject to the Acid Rain rules contained in Rule 335-3-18 and 40 CFR Parts 72, 73 and 75. Applicable Acid Rain permits are contained in the Acid Rain portion of this Operating Permit.	Rule 335-3-18 40 CFR Parts 72, 73, and 75
<u>CSAPR Requirements</u>	
1. These units are subject to the applicable provisions of Cross-State Air Pollution Rule (CSAPR) to include all applicable provisions of the SO_2 Group 2 Trading Program requirements.	Rules 335-3-5-.06 through 335-3-5-.36

Federally Enforceable Provisos	Regulations
2. These units are subject to the applicable provisions of Cross-State Air Pollution Rule (CSAPR) to include all applicable provisions of the NOx Seasonal and Annual Trading Program requirements.	Rules 335-3-8-.06 through 335-3-8-.70

Summary Page for MACT Subpart ZZZZ – Existing Emergency RICE Engines

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
Appendix A	Appendix A	PM	N/A	N/A
Appendix A	Appendix A	SO_2	N/A	N/A
Appendix A	Appendix A	NO_X	N/A	N/A
Appendix A	Appendix A	CO	N/A	N/A
Appendix A	Appendix A	VOC	N/A	N/A
Appendix A	Appendix A	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 RICE Engines

Federally Enforceable Provisos	Regulations
Applicability	
1. These sources are subject to the applicable requirements of ADEM Admin. Code r. 335-3-16-.03, "Major Source Operating Permits".	Rule 335-3-16-.03
2. These sources are subject to the applicable requirements of 40 CFR Part 63 Subpart ZZZZ, "National Emission Standards for Hazardous Air Pollutants for Reciprocating Internal Combustion Engines (RICE)".	40 CFR Part 63 Subpart ZZZZ 40 CFR §63.6585
3. These sources are subject to the applicable requirements of Subpart A of 40 CFR Part 63, "General Provisions" as listed in Table 8 of Subpart ZZZZ.	40 CFR Part 63 Subpart ZZZZ 40 CFR §63.6665
Emission Standards	
1. These sources are 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 these units 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) 40 CFR Part 63, Subpart ZZZZ, Table 6
3. The firewater pump shall be equipped with a non-resettable hour meter.	40 CFR §63.6625(f)
4. These units 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)

Federally Enforceable Provisos	Regulations
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 unless the conditions provided in 40 CFR 63.6640(f)(4)(ii) are satisfied. 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. Or utilize an oil analysis program as described in §63.6625(i).	40 CFR Part 63 Subpart ZZZZ, Table 2d 40 CFR §63.6625(i)

Federally Enforceable Provisos	Regulations
2. If an oil analysis program is utilized for a stationary compression ignition engine, the Permittee must perform the oil analysis at the same frequency specified above for changing the oil. The Permittee must at a minimum analyze the following parameters: Total Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30 percent of the Total Base Number of the oil when new, viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new, or percent water content (by volume) is greater than 0.5. If any of the limits are exceed, 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)
<u>Recordkeeping and Reporting Requirements</u>	
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)

Appendix A

Emission Point	HP
McWilliams Emergency Fire Water Pump	165
Vann Emergency Fire Water Pump	225
Vann Emergency Backup	670.5

Phase II Acid Rain Permit

Issued by: Alabama Department of Environmental Management

Issued to: McWilliams Power Plant

Operated by: PowerSouth Energy Cooperative, Inc.

ORIS code: 0533

Effective: TBD through TBD

Acid Rain Permit Contents

1) Statement of Basis.

2) SO_2 allowances allocated under this permit and NO_x requirements for each affected unit.

3) Comments, notes and justifications regarding permit decisions and changes made to the permit application forms during the review process and any additional requirements or conditions.

4) The permit application submitted for this source, as corrected by the Alabama Department of Environmental Management. The owners and operators of the source must comply with the standard requirements and special provisions set forth in the application.

5) Summary of Previous Actions and Current Action.

1) Statement of Basis:

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

2) SO_2 Allowance Allocations and NO_x Requirements for each affected unit:

		2021	2022	2023	2024	2025
****4**	SO_2 allowances, under Tables 2, 3, or 4 of 40 CFR part 73. [tons]	NA[1]	NA[1]	NA[1]	NA[1]	NA[1]
	NO_x limit [lb/MMBtu]	NA[2]	NA[2]	NA[2]	NA[2]	NA[2]

		2021	2022	2023	2024	2025
****V1**	SO_2 allowances, under Tables 2, 3, or 4 of 40 CFR part 73. [tons]	NA[1]	NA[1]	NA[1]	NA[1]	NA[1]
	NO_x limit [lb/MMBtu]	NA[2]	NA[2]	NA[2]	NA[2]	NA[2]

		2021	2022	2023	2024	2025
**V2	SO_2 allowances, under Tables 2, 3, or 4 of 40 CFR part 73. [tons]	NA[1]	NA[1]	NA[1]	NA[1]	NA[1]
	NO_x limit [lb/MMBtu]	NA[2]	NA[2]	NA[2]	NA[2]	NA[2]

[1] Currently there are no SO_2 allowances allocated to these units by the U.S. EPA. The number of allowances allocated to Phase II affected units by U.S. EPA may change under 40 CFR Part 73. In addition, the number of allowances actually held by an affected source in a unit account may differ from the number allocated by U.S. EPA. Neither of the aforementioned conditions necessitate a revision to SO_2 allowance allocations identified in this permit [See 40 CFR 72.84].

[2] 40 CFR Part 76 does not establish a NO_x emission rate for these because they are combined cycle units.

3) **Comments, Notes and Justifications:** This facility consists of two – 166 MW Natural Gas Fired Combustion Turbines with Heat Recovery Steam Generators (HRSG) and a combined cycle 106 MW Natural Gas/Distillate Oil Fired Combustion Turbine with a Natural Gas Fired 83.3 MMBtu/hr Duct Burner and HRSG (Unit **4). The Heat Recovery Boiler for Unit **4 supplies steam to two 7.5 MW and one 22.5 MW steam turbines.

4) Permit Application: Attached.

5) Summary of Previous Actions and Current Action:

	Action	Date
1.	Draft permit prepared and submitted for public review and comment.	November 25, 1998
2.	Permit finalized and issued.	January 28, 1999
3.	Draft permit prepared and submitted for public review and comment.	December 1, 2004
4.	Permit finalized and re-issued.	January 1, 2005
5.	Permit finalized and re-issued.	May 2, 2008
6.	Draft permit prepared and submitted for public review and comment.	June 29, 2011
7.	Permit finalized and re-issued.	August 15, 2011
8.	Draft permit prepared and submitted for public review and comment.	July 12, 2016
9.	Permit finalized and re-issued.	August 29, 2016
10.	Draft permit prepared and submitted for public review and comment.	TBD
11.	Permit finalized and re-issued.	TBD

Ronald W. Gore, Chief
Air Division

Date