



ARKANSAS

ENERGY & ENVIRONMENT

January 7, 2022

Via email to: wmcmast@entergy.com & First Class Mail

Clay McMaster
Senior Environmental Analyst
Entergy Arkansas, LLC - Lake Catherine Plant
141 West County Line Road
Malvern, AR 72104

Re: Notice of Final Permitting Decision; Permit No. 1717-AOP-R9

Dear Mr. McMaster,

After considering the application, any public comments, and other applicable materials as required by APC&EC Reg.8.211 and Ark. Code Ann. § 8-4-101 *et seq.*, this notice of final permitting decision is provided for:

Entergy Arkansas, LLC - Lake Catherine Plant
141 West County Line Road
Malvern, AR 72104

Permit Number: 1717-AOP-R9

Permitting Decision: approval with permit conditions as set forth in final Permit No. 1717-AOP-R9

Accessing the Permitting Decision and Response to Comments, if any:
<https://www.adeq.state.ar.us/downloads/WebDatabases/PermitsOnline/Air/1717-AOP-R9.pdf>.

Accessing the Statement of Basis:
<https://www.adeq.state.ar.us/downloads/WebDatabases/PermitsOnline/Air/1717-AOP-R9-SOB.pdf>.

The permitting decision is effective on the date stated in the attached Certificate of Service unless a Commission review has been properly requested under Arkansas Pollution Control & Ecology Commission's Administrative Procedures, Regulation No. 8, within thirty (30) days after service of this decision.

The applicant or permittee and any other person submitting public comments on the record may request an adjudicatory hearing and Commission review of the final permitting decisions as provided under Chapter Six of Regulation No. 8. Such a request shall be in the form and manner

required by Reg.8.603, including filing a written Request for Hearing with the Commission secretary at 3800 Richards Rd, North Little Rock, Arkansas 72117. If you have any questions about filing the request, please call the Commission at 501-682-7890.

This permit is your authority to construct, operate, and maintain the equipment and control apparatus as set forth in your application initially received on 4/21/2021.

Sincerely,

A handwritten signature in black ink, appearing to read "William K. Montgomery", with a long horizontal flourish extending to the right.

William K. Montgomery
Associate Director, Office of Air Quality, Division of Environmental Quality
5301 Northshore Drive, North Little Rock, AR 72118-5317

Enclosure: Certificate of Service
cc: schiver@entergy.com

CERTIFICATE OF SERVICE

I, Cynthia Hook, hereby certify that the final permit decision notice has been mailed by first class mail to Entergy Arkansas, LLC - Lake Catherine Plant, 141 West County Line Road, Malvern, AR, 72104, on this 7th day of January, 2022.

A handwritten signature in black ink that reads "Cynthia Hook". The signature is written in a cursive style with a large initial "C" and a long, sweeping tail on the "k".

Cynthia Hook, AA, Office of Air Quality



DIVISION OF ENVIRONMENTAL QUALITY

OPERATING AIR PERMIT

PERMIT NUMBER: 1717-AOP-R9

IS ISSUED TO:

Entergy Arkansas, LLC - Lake Catherine Plant
141 West County Line Road
Malvern, AR 72104
Hot Spring County
AFIN: 30-00011

PURSUANT TO THE REGULATIONS OF THE ARKANSAS OPERATING AIR PERMIT PROGRAM, REGULATION 26: THIS PERMIT AUTHORIZES THE ABOVE REFERENCED PERMITTEE TO INSTALL, OPERATE, AND MAINTAIN THE EQUIPMENT AND EMISSION UNITS DESCRIBED IN THE PERMIT APPLICATION AND ON THE FOLLOWING PAGES. THIS PERMIT IS VALID BETWEEN:

January 7, 2022

AND

January 6, 2027

THE PERMITTEE IS SUBJECT TO ALL LIMITS AND CONDITIONS CONTAINED HEREIN.

Signed:

A handwritten signature in black ink, appearing to read "William K. Montgomery", is written over a horizontal line.

William K. Montgomery
Associate Director, Office of Air Quality
Division of Environmental Quality

January 7, 2022

Date

Entergy Arkansas, LLC - Lake Catherine Plant
Permit #: 1717-AOP-R9
AFIN: 30-00011

Table of Contents

SECTION I: FACILITY INFORMATION	4
SECTION II: INTRODUCTION	5
Summary of Permit Activity	5
Process Description	5
Regulations	5
Emission Summary	6
SECTION III: PERMIT HISTORY	7
SECTION IV: SPECIFIC CONDITIONS	9
SN-03	9
SN-10	14
SECTION V: COMPLIANCE PLAN AND SCHEDULE	17
SECTION VI: PLANTWIDE CONDITIONS	18
SECTION VII: INSIGNIFICANT ACTIVITIES	26
SECTION VIII: GENERAL PROVISIONS	28
Appendix A – Maximum Capacity Emission Rates	
Appendix B – ADEQ CEMS Conditions	
Appendix C – Acid Rain Program – Acid Rain Permit Application	
Appendix D – Transport Rule (TR) Trading Program Title V Requirements	

Entergy Arkansas, LLC - Lake Catherine Plant
Permit #: 1717-AOP-R9
AFIN: 30-00011

List of Acronyms and Abbreviations

Ark. Code Ann.	Arkansas Code Annotated
AFIN	Arkansas DEQ Facility Identification Number
C.F.R.	Code of Federal Regulations
CO	Carbon Monoxide
COMS	Continuous Opacity Monitoring System
HAP	Hazardous Air Pollutant
Hp	Horsepower
lb/hr	Pound Per Hour
NESHAP	National Emission Standards (for) Hazardous Air Pollutants
MVAC	Motor Vehicle Air Conditioner
No.	Number
NO _x	Nitrogen Oxide
NSPS	New Source Performance Standards
PM	Particulate Matter
PM ₁₀	Particulate Matter Equal To Or Smaller Than Ten Microns
PM _{2.5}	Particulate Matter Equal To Or Smaller Than 2.5 Microns
SNAP	Significant New Alternatives Program (SNAP)
SO ₂	Sulfur Dioxide
SSM	Startup, Shutdown, and Malfunction Plan
Tpy	Tons Per Year
UTM	Universal Transverse Mercator
VOC	Volatile Organic Compound

Entergy Arkansas, LLC - Lake Catherine Plant
Permit #: 1717-AOP-R9
AFIN: 30-00011

SECTION I: FACILITY INFORMATION

PERMITTEE: Entergy Arkansas, LLC - Lake Catherine Plant

AFIN: 30-00011

PERMIT NUMBER: 1717-AOP-R9

FACILITY ADDRESS: 141 West County Line Road
Malvern, AR 72104

MAILING ADDRESS: 141 West County Line Road
Malvern, AR 72104

COUNTY: Hot Spring County

CONTACT NAME: Clay McMaster

CONTACT POSITION: Senior Environmental Analyst

TELEPHONE NUMBER: (501) 844-2152

REVIEWING ENGINEER: Derrick Brown

UTM North South (Y): Zone 15: 3810519.47 m

UTM East West (X): Zone 15: 509102.29 m

SECTION II: INTRODUCTION

Summary of Permit Activity

Entergy Arkansas, LLC – Lake Catherine Plant is a natural gas fired power generating station located at 141 West County Line Road in Malvern, Arkansas. This modification includes the facility’s renewal permit application. Also, this modification includes a specific condition requiring Unit 4 (SN-03) to cease operation by December 31, 2027 as obligated by the Settlement Agreement between Entergy, Sierra Club, and National Parks Conservation Association approved by the U.S. District Court Eastern District Court of Arkansas. There are no requested changes in method of operation or emissions with this modification.

Process Description

Entergy Arkansas, LLC owns and operates a single-unit electric generating station located on Lake Catherine in Malvern, Hot Spring County, Arkansas. The site was originally permitted as a four-unit station, but Units 1, 2, and 3 were permanently retired by Entergy in December of 2013. These units were removed from the permit with the issuance of Permit 1717-AOP-R6 in September of 2014. Electricity for sale is produced by the combustion of pipeline-quality natural gas in one natural gas-fired boiler which generates steam used to drive an electrical generator. The remaining electrical generating unit, Unit 4, at the site is powered by a nominal 5,850 MMBtu/hr tangentially-fired natural gas boiler (SN-03). Unit 4 is the primary emission source located at the site. Six bulk fuel storage tanks (SN-04 through SN-09) once located at the site have been removed (with this permit modification). A diesel-fired emergency generator (SN-10) is located at the site, and various small emission sources exist which are listed in the insignificant activities list.

Regulations

The following table contains the regulations applicable to this permit.

Regulations
Arkansas Air Pollution Control Code, Regulation 18, effective March 14, 2016
Rules of the Arkansas Plan of Implementation for Air Pollution Control, Rule 19, effective August 6, 2020
Regulations of the Arkansas Operating Air Permit Program, Regulation 26, effective March 14, 2016
40 C.F.R. § 75, Acid Rain Program
40 C.F.R. § 97, Subpart BBBB – <i>CSAPR NO_x Ozone Season Group 1 Trading Program</i>
40 C.F.R. § 63, Subpart ZZZZ – <i>National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines</i>

Emission Summary

The following table is a summary of emissions from the facility. This table, in itself, is not an enforceable condition of the permit.

EMISSION SUMMARY				
Source Number	Description	Pollutant	Emission Rates	
			lb/hr	tpy
Total Allowable Emissions		PM	45.0	195.3
		PM ₁₀	44.9	195.2
		SO ₂	6.6	18.7
		VOC	32.8	141.7
		CO	145.4	620.4
		NO _x	3,411.9	14,811.4
		Formaldehyde	0.01	0.01
		Acrolein	0.01	0.01
		Total Combustion HAPs	11.08	48.41
SN-03	C4 Unit 4 Boiler (Natural Gas)	PM	44.5	194.8
		PM ₁₀	44.5	194.8
		SO ₂	3.6	15.4
		VOC	32.2	141.0
		CO	140.4	615.0
		NO _x	3,393.0	14,861.4
		Total Combustion HAPs	11.05	48.38
SN-10	Emergency Diesel Generator	PM	0.5	0.5
		PM ₁₀	0.4	0.4
		SO ₂	3.0	3.3
		VOC	0.6	0.6
		CO	5.0	5.4
		NO _x	18.9	20.4
		Formaldehyde	0.01	0.01
		Acrolein	0.01	0.01
		Total Combustion HAPs	0.03	0.03

*HAPs included in the VOC totals. Other HAPs are not included in any other totals unless specifically stated.

SECTION III: PERMIT HISTORY

1717-AOP-R0 was the first operating air permit issued to Entergy- Arkansas, Inc. Lake Catherine. No physical changes in the method of operation at the facility occurred prompting this permit issuance.

The Lake Catherine facility had never been issued an air permit. These units were in existence prior to 1972, before the Air Code and SIP were promulgated, and have not undergone any modification. The units are considered to be “grandfathered.” The emission limits listed in the emission summary table are less than the potential to emit. The Lake Catherine facility is taking emission limits pursuant to Regulation 18 for fee purposes only. These limits are not being established pursuant to 40 CFR 52.21 or under regulations approved pursuant to 40 CFR 51, Subpart I or 40 CFR 51.166. These limits may be changed by the request of a permit modification if plant operating requirements change. Such a change may result in the facility paying higher permit fees. Appendix A outlines the potential to emit for the Lake Catherine facility. If this facility has a modification above the PSD significance level, Appendix A will be used as potential to emit pursuant to 40 CFR 52.21. The facility must meet the requirements of the Acid Rain Program and emissions from the facility must not violate the National Ambient Air Quality Standards (NAAQS).

1717-AOP-R1 was issued on May 8, 2001. After the issuance of the initial permit (1717-AOP-R0), it was discovered that the facility had potential problems with the permitted NO_x limits for short periods of time when the units were brought to maximum load. Also, it was found that Boiler #3 was exceeding the SO₂ limits. The exceedances were caused by low estimates of the heat input of the boilers. This modification allowed the facility to increase the estimated heat input for boilers and increased the permitted emission limits. No physical modifications were made to equipment at the facility.

Permit #1717-AO-R2 was issued on January 24, 2005. This was the first renewal of the Title V permit issued to this facility. There were no changes made in the physical operation of the facility, but the CO emissions were revised to reflect the use of AP-42 emission factors. Entergy believed these values to be more representative than the previous method used. Also, the particulate matter emission rates now account for both condensable and filterable fractions of particulate matter emissions. Also, hazardous air pollutants were listed in the permit for the first time.

Permit #1717-AOP-R3 was issued November 29, 2007. This modification will allowed Entergy-Lake Catherine Unit 4 to be considered a peaking unit and operated according to 40 CFR Part 75, Appendix E. No changes were made in the permitted emission rates.

Permit #1717-AOP-R4 was issued April 4, 2009. This permit modification was issued to incorporate the facility’s Clean Air interstate Rule (CAIR) permit application. There were no permitted emission changes associated with this permitting action.

Entergy Arkansas, LLC - Lake Catherine Plant
Permit #: 1717-AOP-R9
AFIN: 30-00011

Permit #1717-AOP-R5 was issued August 15, 2011. This permit incorporated the facility's renewal permit application. This action decreased SO₂ emissions by 1049.1 tons per year. There were also changes of emissions of NO_x, PM and PM₁₀.

Permit #1717-AOP-R6 was issued September 26, 2014. This permit action retired three units 1 (SN-01), 2 (SN-01), and 3 (SN-02). Facility emissions decreased by 80.1 tons of PM/PM₁₀, 862.1 tons of SO₂, 58.1 tons of VOC, 885.3 tons of CO, 6,101.2 tons of NO_x, and HAPs decreased by 79.7 tons per year.

Permit #1717-AOP-R7 was issued October 26, 2016. This modification included the facility's renewal permit application. This modification included incorporation of the existing diesel-fired emergency generator engine as SN-10. Also, this modification removed permit provisions related to the vacated Clean Air Interstate Rule (CAIR) and incorporation of the applicable requirements of the Cross-State Air Pollution Rule (CSAPR). Insignificant Activities were updated as well. Facility emissions increased by 0.4, 0.5, 2.7, 1.3, 5.4, and 20.4 tons per year of PM₁₀, PM, SO₂, VOC, CO, and NO_x respectively.

Permit #1717-AOP-R8 was issued June 15, 2021. This modification included a specific condition outlining the facility's method of complying with Phase II Regional Haze State Implementation Plan requirements for SO₂ and PM. Also, Fuel Oil Storage Tanks, SN-04 through SN-09, were removed from the facility. This modification decreased permitted emissions by 0.6 tons per year of VOC.

SECTION IV: SPECIFIC CONDITIONS

SN-03
 C4 Unit 4 Boiler (Natural Gas)

Source Description

The Lake Catherine facility is a one-unit electric generating station which generates electric energy for sale. The Unit 4 is a boiler capable of 5850 MMBtu/hr (nominal rating 560 MWg (megawatts gross). Electricity is produced by using natural gas as fuel in the boiler to produce steam. The steam is used to drive the turbines which turn the electric generators.

The emission limits in this permit are established pursuant to Regulation 18, §18.801. The limits are not established pursuant to 40 CFR 52.21 or under regulations approved pursuant to 40 CFR 51, Subpart I, or 40 CFR 51.166. Therefore, the facility is not subject to PSD if the hours of operation are to be increased.

No control devices are associated with this unit.

Specific Conditions

- The permittee shall not exceed the emission rates set forth in the following table. Compliance with SO₂ emissions shall be demonstrated through compliance with Specific Condition 8. Compliance with SN-03 NO_x emission rates shall be demonstrated by compliance with Specific Condition 9. Compliance with PM₁₀, CO, and VOC emissions shall be demonstrated through compliance with Specific Condition 6. Compliance is based on a 24-hr block average. [Reg.19.501 *et seq.* and 40 C.F.R. § 52 Subpart E]

SN	Description	Pollutant	lb/hr	tpy
03	Unit 4 – Natural Gas	PM ₁₀	44.5	194.8
		SO ₂	3.6	15.4
		VOC	32.2	141.0
		CO	140.4	615.0
		NO _x	3,393.0	14,861.4

2. The permittee shall not exceed the emission rates set forth in the following table. Compliance with PM emissions shall be demonstrated through compliance with Specific Condition 6. The HAP emissions listed for these sources are based upon published emission factors at the time of permit issuance. Any change in these emission factors will not constitute a violation of the HAP emission rates listed below. [Reg.18.801 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

SN	Description	Pollutant	lb/hr	tpy
03	Unit 4 – Natural Gas	PM	44.5	194.8
		Total Combustion HAPs	11.05	48.38

3. Visible emissions may not exceed the limits specified in the following table of this permit as measured by EPA Reference Method 9 for SN-03 when firing natural gas. Compliance with the opacity limit shall be demonstrated by burning natural gas in the boiler.

SN	Limit	Regulatory Citation
03	40%	Reg.19.503 and 40 C.F.R. § 52 Subpart E

4. The permittee shall install, operate, and maintain O₂ monitors on the boilers. The permittee shall show a positive O₂ reading when the boilers are in operation. [Reg.19.703, 40 C.F.R. § 52 Subpart E, and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
5. The permittee shall update, twice per day, records which demonstrate compliance with Specific Condition 4. These records shall be kept on site, and shall be made available to Department personnel upon request. Each individual month’s readings shall be submitted in accordance with General Provision 7. [Reg.19.703, 40 C.F.R. § 52 Subpart E, and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
6. The permittee shall not exceed the emission rates set forth in the following table. Compliance with this condition shall be demonstrated by burning 100% natural gas. The permittee is accepting these limits for fee purposes only. These limits are not being established pursuant to 40 CFR 52.21 or under regulations approved pursuant to 40 CFR 51, Subpart I or 40 CFR 51.166. [Reg.19.501 *et seq.* and 40 C.F.R. § 52 Subpart E]

SN	Description	Pollutant	tpy
03	Unit 4	PM	194.8
		PM ₁₀	194.8
		SO ₂	15.4
		VOC	141.0
		CO	615.0
		NO _x	14,861.4

7. In order to meet the Phase II Regional Haze State Implementation Plan requirements for SO₂ and PM, SN-03 shall burn only pipeline quality natural gas. By burning only pipeline quality natural gas, compliance with BART (Best Achievable Retrofit Technology) requirements applicable to SN-03 is demonstrated. [Administrative Order LIS 18-073 and 40 C.F.R. § 52 Subpart E]

Acid Rain Requirements

8. The permittee shall determine SO₂ emissions using the optional SO₂ emissions data protocol procedures in 40 CFR Part 75, Appendix D, Section 2.2 and 2.3. The records may be used by the Department for enforcement purposes. The records shall be updated on a monthly basis, shall be kept on site, and shall be provided to Department personnel upon request. An annual total and each individual month's data shall be submitted in accordance with General Provision 7. [40 C.F.R. § 52 Subpart E and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
9. The permittee shall determine NO_x emissions for unit 4 (SN-03) using the optional NO_x emissions data protocol procedure in 40 CFR Part 75, Appendix E, section 2.4. The records shall be updated on a monthly basis, shall be kept on site, and shall be provided to Department personnel upon request. An annual total and each individual month's data shall be submitted in accordance with General Provision 7. [40 C.F.R. § 52 Subpart E and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
10. In the event that Unit 4 exceeds the level required to be a peaking unit as defined in 40 CFR 72.2, the permittee shall maintain records, using CEMS for NO_x for the applicable unit(s), which demonstrate compliance with the limit set forth in this permit. If CEMS is required, it will be installed in accordance with 40 CFR Part 75, Appendix E, §1.1 which requires a NO_x CEMS to be installed and certified no later than December 31st of the calendar year following the year in which the peaking status was lost. The records may be used by the Department for enforcement purposes. The records shall be updated on a monthly basis, shall be kept on site, and shall be provided to Department personnel upon request. An annual total and each individual month's data shall be submitted in accordance with General Provision 7. [40 C.F.R. § 52 Subpart E and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
11. The permittee shall submit an excess emissions report for SO₂ and NO_x for the source every six (6) months. The report may be submitted to the Department with the report described in General Provision 7. The report shall include the magnitude of excess emissions computed from the 40 CFR Part 75 monitoring data in pounds per hour, any conversion factor(s) used, and the date and time of commencement and completion of each time period of excess emissions. [Reg.19.705 and 40 C.F.R. § 52 Subpart E]
12. The permittee shall determine CO₂ emissions based on the measured carbon content of the fuel and the fuel and the procedures in appendix G of 40 CFR Part 75 to estimate CO₂

- emissions (in ton/day) discharged to the atmosphere. [Reg.19.304 and 40 C.F.R. § 75.10(a)(3)]
13. SN-03 is considered a gas-fired unit and is exempt from Part 75 opacity monitoring as per 40 CFR Part 75.10 (a) (4). [Reg.19.304 and 40 C.F.R. § 72.2]
 14. In the event a gas-fired unit is re-categorized as another type of unit by changing its fuel mix, the owner or operator shall install, operate, and certify a continuous opacity monitoring system. Each continuous opacity monitoring system shall meet the design, installation, equipment, and performance specifications in Performance Specifications 1 in appendix B to part 60. [Reg.19.304 and 40 C.F.R. § 74.14]
 15. The permittee shall ensure that all required continuous emission monitoring systems are in operation and monitoring all unit emissions at all times that the affected unit combusts any fuel, except during periods of calibration, quality assurance, preventative maintenance or repair. A copy of the CEM monitoring requirements can be found in Appendix B of this permit. [Reg.19.703, 40 C.F.R. § 75.10, and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
 16. The permittee shall submit the required quarterly monitoring reports to EPA headquarters. [Reg.19.304 and 40 C.F.R. § 75.10(c)]
 17. The permittee shall perform Relative Accuracy tests, if applicable. [Reg.19.304 and 40 C.F.R. § 75]
 18. The permittee shall determine and record the heat input to each affected unit for every hour or part of an hour any fuel is combusted following the procedures in Appendix F of 40 CFR Part 75. [Reg.19.304 and 40 C.F.R. § 75.10(c)]
 19. The affected unit (SN-03) is subject to and shall comply with applicable provisions of the Acid Rain Program. [Reg.19.304 and 40 C.F.R. §§ 72, 73, and 75]
 20. The Notice of CEMS certification testing is required at least 21 days prior to the CEMS certification testing. Test results must be submitted within 45 days after completion of the certification test. [Reg.19.703, 40 C.F.R. § 75 Subpart G, and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
 21. A monitoring plan is required to be submitted for NO_x, SO₂, and O₂ or CO₂ monitoring. [Reg.19.703, 40 C.F.R. § 75 Subpart G, and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
 22. The initial NO_x, and O₂ or CO₂ CEMS certification testing is to occur no later than 90 days after the unit commences commercial operation except the testing must occur prior to the date this unit is declared commercial in accordance with DOE Form EIA-860.

Entergy Arkansas, LLC - Lake Catherine Plant

Permit #: 1717-AOP-R9

AFIN: 30-00011

[Reg.19.703, 40 C.F.R. § 75 Subpart A, and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

23. The permittee shall ensure that the continuous emissions monitoring systems are in operation and monitoring all unit emissions at all times when combusting fuel, except during periods of calibration, quality assurance, preventative maintenance or repair. [Reg.19.703, 40 C.F.R. § 75.10, and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

24. The permittee shall permanently cease operation of SN-03 no later than December 31, 2027. [Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

SN-10
 Emergency Diesel Generator

Source Description

SN-10 is Lake Catherine's 700 Hp compression ignition 4-stroke diesel-fired emergency engine. The model year of the engine is 1970. The engine model number is VT12-700-GS.

Specific Conditions

25. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition through compliance with Specific Conditions 29. [Reg.19.501 *et seq.* and 40 C.F.R. § 52 Subpart E]

SN	Description	Pollutant	lb/hr	tpy
10	700 Hp Emergency Diesel Generator	PM ₁₀	0.4	0.4
		SO ₂	3.0	3.3
		VOC	0.6	0.6
		CO	5.0	5.4
		NO _x	18.9	20.4

26. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition through compliance with Specific Conditions 29. [Reg.18.801 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

SN	Description	Pollutant	lb/hr	tpy
10	700 Hp Emergency Diesel Generator	PM	0.5	0.5
		Formaldehyde	0.01	0.01
		Acrolein	0.01	0.01
		Total Combustion HAP	0.03	0.03

27. Visible emissions may not exceed the limits specified in the following table of this permit as measured by EPA Reference Method 9.

SN	Limit	Regulatory Citation
10	40%	Reg.19.503 and 40 C.F.R. § 52 Subpart E

28. Annual observations of the opacity from SN-10 shall be conducted by a person trained but not necessarily certified in EPA Reference Method 9. If visible emissions in excess of the permitted levels are detected, the permittee shall immediately take action to identify the cause of the visible emissions in excess of the permit limit, implement

corrective action, and document that visible emissions did not appear to be in excess of the permitted opacity following the corrective action. The permittee shall maintain records which contain the following items in order to demonstrate compliance with this specific condition. These records shall be updated annually, kept on site, and made available to Division of Environmental Quality personnel upon request.

- a. The date and time of the observation.
 - b. If visible emissions which appeared to be above the permitted limit were detected.
 - c. If visible emissions which appeared to be above the permitted limit were detected, the cause of the exceedance of the opacity limit, the corrective action taken, and if the visible emissions appeared to be below the permitted limit after the corrective action was taken.
 - d. The name of the person conducting the opacity observations.
29. The permittee shall not operate the emergency generator SN-10 in excess of 2,160 total hours (emergency and non-emergency) per calendar year in order to demonstrate compliance with the annual emission rate limits. Emergency operation in excess of these hours may be allowable but shall be reported and will be evaluated in accordance with Reg.19.602 and other applicable regulations. [Reg.19.705, Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311, and 40 C.F.R. § 70.6]
30. The permittee shall maintain monthly records to demonstrate compliance with Specific Condition 29. The permittee shall update these records by the fifteenth day of the month following the month to which the records pertain. The calendar year totals and each individual month's data shall be maintained on-site, made available to Department personnel upon request, and submitted in accordance with General Provision #7. [Reg.19.705 and 40 C.F.R. § 52 Subpart E]

NESHAP ZZZZ Requirements

31. The emergency generator engine (SN-10) is subject to 40 CFR Part 63 Subpart ZZZZ – National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines. This unit is classified as an existing compression-ignition (CI) emergency engine at a major source. Provided SN-10 does not or is not contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in §63.6640(f)(2)(ii) and (iii). [Reg.19.304 and 40 C.F.R. § 63.6590(b)(3)(iii)]
32. The emergency generator engine (SN-10) must be operated in accordance with the requirements in paragraphs (f)(1) through (4) of 40 CFR §63.6640 (outlined in (a) through (d) of this condition). In order for the engine to be considered an emergency stationary RICE under Subpart ZZZZ, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in nonemergency situations for 50 hours per year, as described in paragraphs (f)(1) through (4) of 40 CFR §63.6640 is prohibited. If SN-10 is not operated according to the requirements of paragraphs (f)(1) through (4) of 40 CFR §63.6640, the engine will not be considered an

emergency engine under subpart ZZZZ and must meet all requirements for non-emergency engines. [Reg.19.304 and 40 C.F.R. § 63.6640]

- a. There is no time limit on the use of SN-10 in emergency situations.
- b. SN-10 may be operated for any combinations of the purposes specified in paragraphs (f)(2)(i) through (iii) of 40 CFR §63.6640 (b)(i) through (iii) of this condition for a maximum of 100 hours per year. Any operation for non-emergency situations as allowed by paragraphs (f)(3) of 40 CFR §63.6640 counts as part of the 100 hours per year allowed by this paragraph (f)(2).
 - i. SN-10 may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state, or local government, the manufacturer, the vendor, the regional transmission operator, or the insurance company associated with the engine. The owner or operator may petition the administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency RICE beyond 100 hours per calendar year.
 - ii. SN-10 may be operated for emergency demand response for periods in which Reliability Coordinator under the North American Electric Reliability Corporation and Energy Emergencies (incorporated by reference, see §63.14), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3.
 - iii. SN-10 may be operated for periods where there is a deviation of voltage or frequency of 5% or greater below standard voltage or frequency.
- c. SN-10 may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph (f)(2) or 40 CFR §63.6640. The 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial agreement with another entity.

Entergy Arkansas, LLC - Lake Catherine Plant
Permit #: 1717-AOP-R9
AFIN: 30-00011

SECTION V: COMPLIANCE PLAN AND SCHEDULE

Entergy Arkansas, LLC - Lake Catherine Plant will continue to operate in compliance with those identified regulatory provisions. The facility will examine and analyze future regulations that may apply and determine their applicability with any necessary action taken on a timely basis.

SECTION VI: PLANTWIDE CONDITIONS

1. The permittee shall notify the Director in writing within thirty (30) days after commencing construction, completing construction, first placing the equipment and/or facility in operation, and reaching the equipment and/or facility target production rate. [Reg.19.704, 40 C.F.R. § 52 Subpart E, and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
2. If the permittee fails to start construction within eighteen months or suspends construction for eighteen months or more, the Director may cancel all or part of this permit. [Reg.19.410(B) and 40 C.F.R. § 52 Subpart E]
3. The permittee must test any equipment scheduled for testing, unless otherwise stated in the Specific Conditions of this permit or by any federally regulated requirements, within the following time frames: (1) new equipment or newly modified equipment within sixty (60) days of achieving the maximum production rate, but no later than 180 days after initial start up of the permitted source or (2) operating equipment according to the time frames set forth by the Division of Environmental Quality or within 180 days of permit issuance if no date is specified. The permittee must notify the Division of Environmental Quality of the scheduled date of compliance testing at least fifteen (15) business days in advance of such test. The permittee shall submit the compliance test results to the Division of Environmental Quality within sixty (60) calendar days after completing the testing. [Reg.19.702 and/or Reg.18.1002 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
4. The permittee must provide:
 - a. Sampling ports adequate for applicable test methods;
 - b. Safe sampling platforms;
 - c. Safe access to sampling platforms; and
 - d. Utilities for sampling and testing equipment.

[Reg.19.702 and/or Reg.18.1002 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
5. The permittee must operate the equipment, control apparatus and emission monitoring equipment within the design limitations. The permittee shall maintain the equipment in good condition at all times. [Reg.19.303 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
6. This permit subsumes and incorporates all previously issued air permits for this facility. [Reg. 26 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

7. Unless otherwise specified in the permit, approval to construct any new major stationary source or a major modification subject to 40 C.F.R. § 52.21 shall become invalid if construction is not commenced within 18 months after receipt of such approval, if construction is discontinued for a period of 18 months or more, or if construction is not completed within a reasonable time. The Division of Environmental Quality may extend the 18-month period upon a satisfactory showing that an extension is justified. [Reg.19.901 *et seq.* and 40 C.F.R. § 52 Subpart E]

Acid Rain (Title IV)

8. The Director prohibits the permittee to cause any emissions exceeding any allowances the source lawfully holds under Title IV of the Act or the regulations promulgated under the Act. No permit revision is required for increases in emissions allowed by allowances acquired pursuant to the acid rain program, if such increases do not require a permit revision under any other applicable requirement. This permit establishes no limit on the number of allowances held by the permittee. However, the source may not use allowances as a defense for noncompliance with any other applicable requirement of this permit or the Act. The permittee will account for any such allowance according to the procedures established in regulations promulgated under Title IV of the Act. A copy of the facility's Acid Rain Permit is attached in an appendix to this Title V permit. [Reg.26.701 and 40 C.F.R. § 70.6(a)(4)]

Title VI Provisions

9. The permittee must comply with the standards for labeling of products using ozone-depleting substances. [40 C.F.R. § 82 Subpart E]
 - a. All containers containing a class I or class II substance stored or transported, all products containing a class I substance, and all products directly manufactured with a class I substance must bear the required warning statement if it is being introduced to interstate commerce pursuant to § 82.106.
 - b. The placement of the required warning statement must comply with the requirements pursuant to § 82.108.
 - c. The form of the label bearing the required warning must comply with the requirements pursuant to § 82.110.
 - d. No person may modify, remove, or interfere with the required warning statement except as described in § 82.112.
10. The permittee must comply with the standards for recycling and emissions reduction, except as provided for MVACs in Subpart B. [40 C.F.R. § 82 Subpart F]
 - a. Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to § 82.156.

- b. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to § 82.158.
 - c. Persons performing maintenance, service repair, or disposal of appliances must be certified by an approved technician certification program pursuant to § 82.161.
 - d. Persons disposing of small appliances, MVACs, and MVAC like appliances must comply with record keeping requirements pursuant to § 82.166. (“MVAC like appliance” as defined at § 82.152)
 - e. Persons owning commercial or industrial process refrigeration equipment must comply with leak repair requirements pursuant to § 82.156.
 - f. Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to § 82.166.
11. If the permittee manufactures, transforms, destroys, imports, or exports a class I or class II substance, the permittee is subject to all requirements as specified in 40 C.F.R. § 82 Subpart A, Production and Consumption Controls.
12. If the permittee performs a service on motor (fleet) vehicles when this service involves ozone depleting substance refrigerant (or regulated substitute substance) in the motor vehicle air conditioner (MVAC), the permittee is subject to all the applicable requirements as specified in 40 C.F.R. § 82 Subpart B, Servicing of Motor Vehicle Air Conditioners.
- The term “motor vehicle” as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed. The term “MVAC” as used in Subpart B does not include the air tight sealed refrigeration system used as refrigerated cargo, or the system used on passenger buses using HCFC 22 refrigerant.
13. The permittee can switch from any ozone depleting substance to any alternative listed in the Significant New Alternatives Program (SNAP) promulgated pursuant to 40 C.F.R. § 82 Subpart G.

CSAPR Requirements

14. The permittee shall comply with the following Cross-State Air Pollution Rule (CSAPR) NO_x Ozone Season Group 2 Trading Program Requirements. The unit-specific monitoring provisions are attached to this Title V permit. [40 C.F.R. § 97 Subpart EEEEE and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
- a. Designated representative requirements.
The owners and operators shall comply with the requirement to have a designated representative, and may have an alternate designated representative, in accordance with 40 C.F.R. §§ 97.813 through 97.818.

- b. Emissions monitoring, reporting, and recordkeeping requirements.
 1. The owners and operators, and the designated representative, of each TR NO_x Ozone Season Group 2 source and each TR NO_x Ozone Season Group 2 unit at the source shall comply with the monitoring, reporting, and recordkeeping requirements of 40 C.F.R. §§ 97.830 (general requirements, including installation, certification, and data accounting, compliance deadlines, reporting data, prohibitions, and long-term cold storage), 97.831 (initial monitoring system certification and recertification procedures), 97.832 (monitoring system out-of-control periods), 97.833 (notifications concerning monitoring), 97.834 (recordkeeping and reporting, including monitoring plans, certification applications, quarterly reports, and compliance certification), and 97.835 (petitions for alternatives to monitoring, recordkeeping, or reporting requirements).
 2. The emissions data determined in accordance with 40 C.F.R. §§ 97.830 through 97.835 shall be used to calculate allocations of TR NO_x Ozone Season Group 2 allowances under 40 C.F.R. §§ 97.811(a)(2) and (b) and 97.812 and to determine compliance with the TR NO_x Ozone Season Group 2 emissions limitation and assurance provisions under paragraph (c) below, provided that, for each monitoring location from which mass emissions are reported, the mass emissions amount used in calculating such allocations and determining such compliance shall be the mass emissions amount for the monitoring location determined in accordance with 40 C.F.R. §§ 97.830 through 97.835 and rounded to the nearest ton, with any fraction of a ton less than 0.50 being deemed to be zero.
- c. NO_x emissions requirements.
 1. TR NO_x Ozone Season Group 2 emissions limitation.
 - i. As of the allowance transfer deadline for a control period in a given year, the owners and operators of each TR NO_x Ozone Season Group 2 source and each TR NO_x Ozone Season Group 2 unit at the source shall hold, in the source's compliance account, TR NO_x Ozone Season Group 2 allowances available for deduction for such control period under 40 C.F.R. § 97.824(a) in an amount not less than the tons of total NO_x emissions for such control period from all TR NO_x Ozone Season Group 2 units at the source.
 - ii. If total NO_x emissions during a control period in a given year from the TR NO_x Ozone Season Group 2 units at a TR NO_x Ozone Season Group 2 source are in excess of the TR NO_x Ozone Season Group 2 emissions limitation set forth in paragraph (c)(1)(i) above, then:
 - A. The owners and operators of the source and each TR NO_x Ozone Season Group 2 unit at the source shall hold the TR NO_x Ozone Season Group 2 allowances required for deduction under 40 C.F.R. § 97.824(d); and

- B. The owners and operators of the source and each TR NO_x Ozone Season Group 2 unit at the source shall pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act, and each ton of such excess emissions and each day of such control period shall constitute a separate violation of 40 C.F.R. § 97 Subpart EEEEE and the Clean Air Act.
2. TR NO_x Ozone Season Group 2 assurance provisions.
 - i. If total NO_x emissions during a control period in a given year from all base TR NO_x Ozone Season Group 2 units at base TR NO_x Ozone Season Group 2 sources in the State exceed the State assurance level, then the owners and operators of such sources and units in each group of one or more sources and units having a common designated representative for such control period, where the common designated representative's share of such NO_x emissions during such control period exceeds the common designated representative's assurance level for the State and such control period, shall hold (in the assurance account established for the owners and operators of such group) TR NO_x Ozone Season Group 2 allowances available for deduction for such control period under 40 C.F.R. § 97.825(a) in an amount equal to two times the product (rounded to the nearest whole number), as determined by the Administrator in accordance with 40 C.F.R. § 97.825(b), of multiplying—
 - A. The quotient of the amount by which the common designated representative's share of such NO_x emissions exceeds the common designated representative's assurance level divided by the sum of the amounts, determined for all common designated representatives for such sources and units in the State for such control period, by which each common designated representative's share of such NO_x emissions exceeds the respective common designated representative's assurance level; and
 - B. The amount by which total NO_x emissions from all base TR NO_x Ozone Season Group 2 units at base TR NO_x Ozone Season Group 2 sources in the State for such control period exceed the State assurance level.
 - ii. The owners and operators shall hold the TR NO_x Ozone Season Group 2 allowances required under paragraph (c)(2)(i) above, as of midnight of November 1 (if it is a business day), or midnight of the first business day thereafter (if November 1 is not a business day), immediately after the year of such control period.
 - iii. Total NO_x emissions from all base TR NO_x Ozone Season Group 2 units at base TR NO_x Ozone Season Group 2 sources in the State during a control period in a given year exceed the state

- assurance level if such total NO_x emissions exceed the sum, for such control period, of the State NO_x Ozone Season Group 2 trading budget under 40 C.F.R. § 97.810(a) and the state's variability limit under 40 C.F.R. § 97.810(b).
- iv. It shall not be a violation of 40 C.F.R. § 97 Subpart EEEEE or of the Clean Air Act if total NO_x emissions from all base TR NO_x Ozone Season Group 2 units at base TR NO_x Ozone Season Group 2 sources in the State during a control period exceed the State assurance level or if a common designated representative's share of total NO_x emissions from the base TR NO_x Ozone Season Group 2 units at base TR NO_x Ozone Season Group 2 sources in the State during a control period exceeds the common designated representative's assurance level.
 - v. To the extent the owners and operators fail to hold TR NO_x Ozone Season Group 2 allowances for a control period in a given year in accordance with paragraphs (c)(2)(i) through (iii) above,
 - A. The owners and operators shall pay any fine, penalty, or assessment or comply with any other remedy imposed under the Clean Air Act; and
 - B. Each TR NO_x Ozone Season Group 2 allowance that the owners and operators fail to hold for such control period in accordance with paragraphs (c)(2)(i) through (iii) above and each day of such control period shall constitute a separate violation of 40 C.F.R. § 97 Subpart EEEEE and the Clean Air Act.
3. Compliance periods.
- i. A TR NO_x Ozone Season Group 2 unit shall be subject to the requirements under paragraph (c)(1) above for the control period starting on the later of May 1, 2017 or the deadline for meeting the unit's monitor certification requirements under 40 C.F.R. § 97.830(b) and for each control period thereafter.
 - ii. A base TR NO_x Ozone Season Group 2 unit shall be subject to the requirements under paragraph (c)(2) above for the control period starting on the later of May 1, 2017 or the deadline for meeting the unit's monitor certification requirements under 40 C.F.R. § 97.830(b) and for each control period thereafter.
4. Vintage of TR NO_x Ozone Season Group 2 allowances held for compliance.
- i. A TR NO_x Ozone Season Group 2 allowance held for compliance with the requirements under paragraph (c)(1)(i) above for a control period in a given year must be a TR NO_x Ozone Season Group 2 allowance that was allocated or auctioned for such control period or a control period in a prior year.
 - ii. A TR NO_x Ozone Season Group 2 allowance held for compliance with the requirements under paragraphs (c)(1)(ii)(A) and (c)(2)(i)

through (iii) above for a control period in a given year must be a TR NO_x Ozone Season Group 2 allowance that was allocated or auctioned for a control period in a prior year or the control period in the given year or in the immediately following year.

5. Allowance Management System requirements. Each TR NO_x Ozone Season Group 2 allowance shall be held in, deducted from, or transferred into, out of, or between Allowance Management System accounts in accordance with 40 C.F.R. § 97 Subpart EEEEE.
 6. Limited authorization. A TR NO_x Ozone Season Group 2 allowance is a limited authorization to emit one ton of NO_x during the control period in one year. Such authorization is limited in its use and duration as follows:
 - i. Such authorization shall only be used in accordance with the TR NO_x Ozone Season Group 2 Trading Program; and
 - ii. Notwithstanding any other provision of 40 C.F.R. § 97 Subpart EEEEE, the Administrator has the authority to terminate or limit the use and duration of such authorization to the extent the Administrator determines is necessary or appropriate to implement any provision of the Clean Air Act.
 7. Property right. A TR NO_x Ozone Season Group 2 allowance does not constitute a property right.
- d. Title V permit requirements.
1. No title V permit revision shall be required for any allocation, holding, deduction, or transfer of TR NO_x Ozone Season Group 2 allowances in accordance with 40 C.F.R. § 97 Subpart EEEEE.
 2. This permit incorporates the TR emissions monitoring, recordkeeping and reporting requirements pursuant to 40 C.F.R. §§ 97.830 through 97.835, and the requirements for a continuous emission monitoring system (pursuant to 40 C.F.R. § 75 Subparts B and H), an excepted monitoring system (pursuant to 40 C.F.R. § 75, appendices D and E), a low mass emissions excepted monitoring methodology (pursuant to 40 C.F.R. § 75.19), and an alternative monitoring system (pursuant to 40 C.F.R. § 75 Subpart E). Therefore, the Description of TR Monitoring Provisions table for units identified in this permit may be added to, or changed, in this title V permit using minor permit modification procedures in accordance with 40 C.F.R. §§ 97.806(d)(2) and 70.7(e)(2)(i)(B) or 71.7(e)(1)(i)(B).
- e. Additional recordkeeping and reporting requirements.
1. Unless otherwise provided, the owners and operators of each TR NO_x Ozone Season Group 2 source and each TR NO_x Ozone Season Group 2 unit at the source shall keep on site at the source each of the following documents (in hardcopy or electronic format) for a period of 5 years from the date the document is created. This period may be extended for cause, at any time before the end of 5 years, in writing by the Administrator.
 - i. The certificate of representation under 40 C.F.R. § 97.816 for the designated representative for the source and each TR NO_x Ozone Season Group 2 unit at the source and all documents that

- demonstrate the truth of the statements in the certificate of representation; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such certificate of representation and documents are superseded because of the submission of a new certificate of representation under 40 C.F.R. § 97.816 changing the designated representative.
- ii. All emissions monitoring information, in accordance with 40 C.F.R. § 97 Subpart EEEEE.
 - iii. Copies of all reports, compliance certifications, and other submissions and all records made or required under, or to demonstrate compliance with the requirements of, the TR NO_x Ozone Season Group 2 Trading Program.
2. The designated representative of a TR NO_x Ozone Season Group 2 source and each TR NO_x Ozone Season Group 2 unit at the source shall make all submissions required under the TR NO_x Ozone Season Group 2 Trading Program, except as provided in 40 C.F.R. § 97.818. This requirement does not change, create an exemption from, or otherwise affect the responsible official submission requirements under a title V operating permit program in 40 C.F.R. §§ 70 and 71.
- f. Liability.
1. Any provision of the TR NO_x Ozone Season Group 2 Trading Program that applies to a TR NO_x Ozone Season Group 2 source or the designated representative of a TR NO_x Ozone Season Group 2 source shall also apply to the owners and operators of such source and of the TR NO_x Ozone Season Group 2 units at the source.
 2. Any provision of the TR NO_x Ozone Season Group 2 Trading Program that applies to a TR NO_x Ozone Season Group 2 unit or the designated representative of a TR NO_x Ozone Season Group 2 unit shall also apply to the owners and operators of such unit.
- g. Effect on other authorities.
- No provision of the TR NO_x Ozone Season Group 2 Trading Program or exemption under 40 C.F.R. § 97.805 shall be construed as exempting or excluding the owners and operators, and the designated representative, of a TR NO_x Ozone Season Group 2 source or TR NO_x Ozone Season Group 2 unit from compliance with any other provision of the applicable, approved state implementation plan, a federally enforceable permit, or the Clean Air Act.

SECTION VII: INSIGNIFICANT ACTIVITIES

The Division of Environmental Quality deems the following types of activities or emissions as insignificant on the basis of size, emission rate, production rate, or activity in accordance with Group A of the Insignificant Activities list found in Regulation 18 and Regulation 19 Appendix A. Group B insignificant activities may be listed but are not required to be listed in permits. Insignificant activity emission determinations rely upon the information submitted by the permittee in an application dated April 19, 2021. [Reg.26.304 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

Description	Category
C8 – Kerosene Fired Steam Heater	A-1
Six (6) 170,000 Btu/hr Diesel-fired Heaters	A-1
T23B – Unit 4 FD Fan LO Reservoir	A-2
T24A – Unit 4 BFW LO Reservoir	A-2
T24B – Unit 4 BFW LO Reservoir	A-2
T24C – Unit 4 BFW LO Reservoir	A-2
T24D – Unit 4 BFW LO Reservoir	A-2
T25 – Unit 4 BFP LO reservoir	A-2
T27 – Used Oil Storage Tank	A-2
T35 – Used Kerosene Drum	A-2
T37 – Waste Oil/Solvent Storage	A-2
T46 – Oil/Water Separator (Oil Section)	A-2
T21 – Unit 4 LO Filter Tank	A-3
T22 – Unit 4 Seal Oil Tank	A-3
T23A – Unit 4 FD Fan LO Reservoir	A-3
T26 – Emergency Diesel Generator Tank	A-3
T36 – Oil Drum Storage	A-3
T44 – Diesel Tank	A-3
T19 – Unit 4 LO Batch Tanks (2 – 12,000 gal)	A-13
T20 – Unit 4 LO Reservoir (12,000 gal)	A-13
T45 – 300 gallon Gasoline Tank	A-13

Entergy Arkansas, LLC - Lake Catherine Plant
Permit #: 1717-AOP-R9
AFIN: 30-00011

Description	Category
X1 – Degreaser	A-13
X2 – Unit 3 Welding Area (1 machine)	A-13
X4 – Diesel Fuel Oil Dispensing Station	A-13
X5 – Unleaded Gasoline Dispensing Station	A-13
X6 – Unit 4 Bead Blaster	A-13
X13 – Aerosol Lubricant Fugitives	A-13
X14 – Aerosol Degreaser Fugitives	A-13
X15 – Aerosol Insecticides	A-13
X18 – Welding Shop (3 machines)	A-13
X19 – Aerosol Puncture Station	A-13

SECTION VIII: GENERAL PROVISIONS

1. Any terms or conditions included in this permit which specify and reference Arkansas Pollution Control & Ecology Commission Regulation 18 or the Arkansas Water and Air Pollution Control Act (Ark. Code Ann. § 8-4-101 *et seq.*) as the sole origin of and authority for the terms or conditions are not required under the Clean Air Act or any of its applicable requirements, and are not federally enforceable under the Clean Air Act. Arkansas Pollution Control & Ecology Commission Regulation 18 was adopted pursuant to the Arkansas Water and Air Pollution Control Act (Ark. Code Ann. § 8-4-101 *et seq.*). Any terms or conditions included in this permit which specify and reference Arkansas Pollution Control & Ecology Commission Regulation 18 or the Arkansas Water and Air Pollution Control Act (Ark. Code Ann. § 8-4-101 *et seq.*) as the origin of and authority for the terms or conditions are enforceable under this Arkansas statute. [40 C.F.R. § 70.6(b)(2)]
2. This permit shall be valid for a period of five (5) years beginning on the date this permit becomes effective and ending five (5) years later. [40 C.F.R. § 70.6(a)(2) and Reg.26.701(B)]
3. The permittee must submit a complete application for permit renewal at least six (6) months before permit expiration. Permit expiration terminates the permittee's right to operate unless the permittee submitted a complete renewal application at least six (6) months before permit expiration. If the permittee submits a complete application, the existing permit will remain in effect until the Division of Environmental Quality takes final action on the renewal application. The Division of Environmental Quality will not necessarily notify the permittee when the permit renewal application is due. [Reg.26.406]
4. Where an applicable requirement of the Clean Air Act, as amended, 42 U.S.C. 7401, *et seq.* (Act) is more stringent than an applicable requirement of regulations promulgated under Title IV of the Act, the permit incorporates both provisions into the permit, and the Director or the Administrator can enforce both provisions. [40 C.F.R. § 70.6(a)(1)(ii) and Reg.26.701(A)(2)]
5. The permittee must maintain the following records of monitoring information as required by this permit.
 - a. The date, place as defined in this permit, and time of sampling or measurements;
 - b. The date(s) analyses performed;
 - c. The company or entity performing the analyses;
 - d. The analytical techniques or methods used;
 - e. The results of such analyses; and
 - f. The operating conditions existing at the time of sampling or measurement.

[40 C.F.R. § 70.6(a)(3)(ii)(A) and Reg.26.701(C)(2)]

6. The permittee must retain the records of all required monitoring data and support information for at least five (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 this permit. [40 C.F.R. § 70.6(a)(3)(ii)(B) and Reg.26.701(C)(2)(b)]
7. The permittee must submit reports of all required monitoring every six (6) months. If the permit establishes no other reporting period, the reporting period shall end on the last day of the month six months after the issuance of the initial Title V permit and every six months thereafter. The report is due on the first day of the second month after the end of the reporting period. The first report due after issuance of the initial Title V permit shall contain six months of data and each report thereafter shall contain 12 months of data. The report shall contain data for all monitoring requirements in effect during the reporting period. If a monitoring requirement is not in effect for the entire reporting period, only those months of data in which the monitoring requirement was in effect are required to be reported. The report must clearly identify all instances of deviations from permit requirements. A responsible official as defined in Reg.26.2 must certify all required reports. The permittee will send the reports electronically using <https://portal.adeq.state.ar.us> or mail them to the address below:

Division of Environmental Quality
Office of Air Quality
ATTN: Compliance Inspector Supervisor
5301 Northshore Drive
North Little Rock, AR 72118-5317

[40 C.F.R. § 70.6(a)(3)(iii)(A) and Reg.26.701(C)(3)(a)]

8. The permittee shall report to the Division of Environmental Quality all deviations from permit requirements, including those attributable to upset conditions as defined in the permit.
 - a. For all upset conditions (as defined in Reg.19.601), the permittee will make an initial report to the Division of Environmental Quality by the next business day after the discovery of the occurrence. The initial report may be made by telephone and shall include:
 - i. The facility name and location;
 - ii. The process unit or emission source deviating from the permit limit;
 - iii. The permit limit, including the identification of pollutants, from which deviation occurs;
 - iv. The date and time the deviation started;
 - v. The duration of the deviation;

- vi. The emissions during the deviation;
- vii. The probable cause of such deviations;
- viii. Any corrective actions or preventive measures taken or being taken to prevent such deviations in the future; and
- ix. The name of the person submitting the report.

The permittee shall make a full report in writing to the Division of Environmental Quality within five (5) business days of discovery of the occurrence. The report must include, in addition to the information required by the initial report, a schedule of actions taken or planned to eliminate future occurrences and/or to minimize the amount the permit's limits were exceeded and to reduce the length of time the limits were exceeded. The permittee may submit a full report in writing (by facsimile, overnight courier, or other means) by the next business day after discovery of the occurrence, and the report will serve as both the initial report and full report.

- b. For all deviations, the permittee shall report such events in semi-annual reporting and annual certifications required in this permit. This includes all upset conditions reported in 8a above. The semi-annual report must include all the information as required by the initial and full reports required in 8a.

[Reg.19.601, Reg.19.602, Reg.26.701(C)(3)(b), and 40 C.F.R. § 70.6(a)(3)(iii)(B)]

9. If any provision of the permit or the application thereof to any person or circumstance is held invalid, such invalidity will not affect other provisions or applications hereof which can be given effect without the invalid provision or application, and to this end, provisions of this Regulation are declared to be separable and severable. [40 C.F.R. § 70.6(a)(5), Reg.26.701(E), and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
10. The permittee must comply with all conditions of this Part 70 permit. Any permit noncompliance with applicable requirements as defined in Regulation 26 constitutes a violation of the Clean Air Act, as amended, 42 U.S.C. § 7401, *et seq.* and is grounds for enforcement action; for permit termination, revocation and reissuance, for permit modification; or for denial of a permit renewal application. [40 C.F.R. § 70.6(a)(6)(i) and Reg.26.701(F)(1)]
11. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity to maintain compliance with the conditions of this permit. [40 C.F.R. § 70.6(a)(6)(ii) and Reg.26.701(F)(2)]
12. The Division of Environmental Quality may modify, revoke, reopen and reissue the permit or terminate the permit for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition. [40 C.F.R. § 70.6(a)(6)(iii) and Reg.26.701(F)(3)]

13. This permit does not convey any property rights of any sort, or any exclusive privilege. [40 C.F.R. § 70.6(a)(6)(iv) and Reg.26.701(F)(4)]
14. The permittee must furnish to the Director, within the time specified by the Director, any information that the Director may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee must also furnish to the Director copies of records required by the permit. For information the permittee claims confidentiality, the Division of Environmental Quality may require the permittee to furnish such records directly to the Director along with a claim of confidentiality. [40 C.F.R. § 70.6(a)(6)(v) and Reg.26.701(F)(5)]
15. The permittee must pay all permit fees in accordance with the procedures established in Regulation 9. [40 C.F.R. § 70.6(a)(7) and Reg.26.701(G)]
16. No permit revision shall be required, under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes provided for elsewhere in this permit. [40 C.F.R. § 70.6(a)(8) and Reg.26.701(H)]
17. If the permit allows different operating scenarios, the permittee shall, contemporaneously with making a change from one operating scenario to another, record in a log at the permitted facility a record of the operational scenario. [40 C.F.R. § 70.6(a)(9)(i) and Reg.26.701(I)(1)]
18. The Administrator and citizens may enforce under the Act all terms and conditions in this permit, including any provisions designed to limit a source's potential to emit, unless the Division of Environmental Quality specifically designates terms and conditions of the permit as being federally unenforceable under the Act or under any of its applicable requirements. [40 C.F.R. § 70.6(b) and Reg.26.702(A) and (B)]
19. Any document (including reports) required by this permit pursuant to 40 C.F.R. § 70 must contain a certification by a responsible official as defined in Reg.26.2. [40 C.F.R. § 70.6(c)(1) and Reg.26.703(A)]
20. The permittee must allow an authorized representative of the Division of Environmental Quality, upon presentation of credentials, to perform the following: [40 C.F.R. § 70.6(c)(2) and Reg.26.703(B)]
 - a. Enter upon the permittee's premises where the permitted source is located or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
 - b. Have access to and copy, at reasonable times, any records required under the conditions of this permit;

- c. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit; and
 - d. As authorized by the Act, sample or monitor at reasonable times substances or parameters for assuring compliance with this permit or applicable requirements.
21. The permittee shall submit a compliance certification with the terms and conditions contained in the permit, including emission limitations, standards, or work practices. The permittee must submit the compliance certification annually. If the permit establishes no other reporting period, the reporting period shall end on the last day of the anniversary month of the initial Title V permit. The report is due on the first day of the second month after the end of the reporting period. The permittee must also submit the compliance certification to the Administrator as well as to the Division of Environmental Quality. All compliance certifications required by this permit must include the following: [40 C.F.R. § 70.6(c)(5) and Reg.26.703(E)(3)]
 - a. The identification of each term or condition of the permit that is the basis of the certification;
 - b. The compliance status;
 - c. Whether compliance was continuous or intermittent;
 - d. The method(s) used for determining the compliance status of the source, currently and over the reporting period established by the monitoring requirements of this permit; and
 - e. Such other facts as the Division of Environmental Quality may require elsewhere in this permit or by § 114(a)(3) and § 504(b) of the Act.
22. Nothing in this permit will alter or affect the following: [Reg.26.704(C)]
 - a. The provisions of Section 303 of the Act (emergency orders), including the authority of the Administrator under that section;
 - b. The liability of the permittee for any violation of applicable requirements prior to or at the time of permit issuance;
 - c. The applicable requirements of the acid rain program, consistent with § 408(a) of the Act; or
 - d. The ability of EPA to obtain information from a source pursuant to § 114 of the Act.
23. This permit authorizes only those pollutant emitting activities addressed in this permit. [Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
24. The permittee may request in writing and at least 15 days in advance of the deadline, an extension to any testing, compliance or other dates in this permit. No such extensions are authorized until the permittee receives written Division of Environmental Quality approval. The Division of Environmental Quality may grant such a request, at its discretion in the following circumstances:

- a. Such an extension does not violate a federal requirement;
- b. The permittee demonstrates the need for the extension; and
- c. The permittee documents that all reasonable measures have been taken to meet the current deadline and documents reasons it cannot be met.

[Reg.18.314(A), Reg.19.416(A), Reg.26.1013(A), Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311, and 40 C.F.R. § 52 Subpart E]

25. The permittee may request in writing and at least 30 days in advance, temporary emissions and/or testing that would otherwise exceed an emission rate, throughput requirement, or other limit in this permit. No such activities are authorized until the permittee receives written Division of Environmental Quality approval. Any such emissions shall be included in the facility's total emissions and reported as such. The Division of Environmental Quality may grant such a request, at its discretion under the following conditions:

- a. Such a request does not violate a federal requirement;
- b. Such a request is temporary in nature;
- c. Such a request will not result in a condition of air pollution;
- d. The request contains such information necessary for the Division of Environmental Quality to evaluate the request, including but not limited to, quantification of such emissions and the date/time such emission will occur;
- e. Such a request will result in increased emissions less than five tons of any individual criteria pollutant, one ton of any single HAP and 2.5 tons of total HAPs; and
- f. The permittee maintains records of the dates and results of such temporary emissions/testing.

[Reg.18.314(B), Reg.19.416(B), Reg.26.1013(B), Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311, and 40 C.F.R. § 52 Subpart E]

26. The permittee may request in writing and at least 30 days in advance, an alternative to the specified monitoring in this permit. No such alternatives are authorized until the permittee receives written Division of Environmental Quality approval. The Division of Environmental Quality may grant such a request, at its discretion under the following conditions:

- a. The request does not violate a federal requirement;
- b. The request provides an equivalent or greater degree of actual monitoring to the current requirements; and
- c. Any such request, if approved, is incorporated in the next permit modification application by the permittee.

Entergy Arkansas, LLC - Lake Catherine Plant

Permit #: 1717-AOP-R9

AFIN: 30-00011

[Reg.18.314(C), Reg.19.416(C), Reg.26.1013(C), Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311, and 40 C.F.R. § 52 Subpart E]

27. Any credible evidence based on sampling, monitoring, and reporting may be used to determine violations of applicable emission limitations. [Reg.18.1001, Reg.19.701, Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311, and 40 C.F.R. § 52 Subpart E]

APPENDIX A

Maximum Capacity Emission Rates				
			100% Natural Gas (tpy)	100% Fuel Oil (tpy)
01 (C1)	Unit 1	PM PM ₁₀ SO ₂ VOC CO NO _x	Retired December 2013	Retired December 2013
	Unit 2	PM PM ₁₀ SO ₂ VOC CO NO _x	Retired December 2013	Retired December 2013
02 (C3)	Unit 3	PM PM ₁₀ SO ₂ VOC CO NO _x	Retired December 2013	Retired December 2013
03 (C4)	Unit 4	PM PM ₁₀ SO ₂ VOC CO NO _x	194.8 194.8 15.4 141.0 615.0 14861.4	2113.3 1563.5 11926.3 158.0 759.6 14861.3

APPENDIX B

Arkansas Department of Environmental Quality



CONTINUOUS EMISSION MONITORING SYSTEMS CONDITIONS

Revised August 2004

PREAMBLE

These conditions are intended to outline the requirements for facilities required to operate Continuous Emission Monitoring Systems/Continuous Opacity Monitoring Systems (CEMS/COMS). Generally there are three types of sources required to operate CEMS/COMS:

1. CEMS/COMS required by 40 CFR Part 60 or 63,
2. CEMS required by 40 CFR Part 75,
3. CEMS/COMS required by ADEQ permit for reasons other than Part 60, 63 or 75.

These CEMS/COMS conditions are not intended to supercede Part 60, 63 or 75 requirements.

- Only CEMS/COMS in the third category (those required by ADEQ permit for reasons other than Part 60, 63, or 75) shall comply with SECTION II, MONITORING REQUIREMENTS and SECTION IV, QUALITY ASSURANCE/QUALITY CONTROL.
- All CEMS/COMS shall comply with Section III, NOTIFICATION AND RECORDKEEPING.

SECTION I

DEFINITIONS

Continuous Emission Monitoring System (CEMS) - The total equipment required for the determination of a gas concentration and/or emission rate so as to include sampling, analysis and recording of emission data.

Continuous Opacity Monitoring System (COMS) - The total equipment required for the determination of opacity as to include sampling, analysis and recording of emission data.

Calibration Drift (CD) - The difference in the CEMS output reading from the established reference value after a stated period of operation during which no unscheduled maintenance, repair, or adjustments took place.

Back-up CEMS (Secondary CEMS) - A CEMS with the ability to sample, analyze and record stack pollutant to determine gas concentration and/or emission rate. This CEMS is to serve as a back-up to the primary CEMS to minimize monitor downtime.

Excess Emissions - Any period in which the emissions exceed the permit limits.

Monitor Downtime - Any period during which the CEMS/COMS is unable to sample, analyze and record a minimum of four evenly spaced data points over an hour, except during one daily zero-span check during which two data points per hour are sufficient.

Out-of-Control Period - Begins with the time corresponding to the completion of the fifth, consecutive, daily CD check with a CD in excess of two times the allowable limit, or the time corresponding to the completion of the daily CD check preceding the daily CD check that results in a CD in excess of four times the allowable limit and the time corresponding to the completion of the sampling for the RATA, RAA, or CGA which exceeds the limits outlined in Section IV. Out-of-Control Period ends with the time corresponding to the completion of the CD check following corrective action with the results being within the allowable CD limit or the completion of the sampling of the subsequent successful RATA, RAA, or CGA.

Primary CEMS - The main reporting CEMS with the ability to sample, analyze, and record stack pollutant to determine gas concentration and/or emission rate.

Relative Accuracy (RA) - The absolute mean difference between the gas concentration or emission rate determined by the CEMS and the value determined by the reference method plus the 2.5 percent error confidence coefficient of a series of tests divided by the mean of the reference method tests of the applicable emission limit.

Span Value – The upper limit of a gas concentration measurement range.

SECTION II

MONITORING REQUIREMENTS

- A. For new sources, the installation date for the CEMS/COMS shall be no later than thirty (30) days from the date of start-up of the source.
- B. For existing sources, the installation date for the CEMS/COMS shall be no later than sixty (60) days from the issuance of the permit unless the permit requires a specific date.
- C. Within sixty (60) days of installation of a CEMS/COMS, a performance specification test (PST) must be completed. PST's are defined in 40 CFR, Part 60, Appendix B, PS 1-9. The Department may accept alternate PST's for pollutants not covered by Appendix B on a case-by-case basis. Alternate PST's shall be approved, in writing, by the ADEQ CEM Coordinator prior to testing.
- D. Each CEMS/COMS shall have, as a minimum, a daily zero-span check. The zero-span shall be adjusted whenever the 24-hour zero or 24-hour span drift exceeds two times the limits in the applicable performance specification in 40 CFR, Part 60, Appendix B. Before any adjustments are made to either the zero or span drifts measured at the 24-hour interval the excess zero and span drifts measured must be quantified and recorded.
- E. All CEMS/COMS shall be in continuous operation and shall meet minimum frequency of operation requirements of 95% up-time for each quarter for each pollutant measured. Percent of monitor down-time is calculated by dividing the total minutes the monitor is not in operation by the total time in the calendar quarter and multiplying by one hundred. Failure to maintain operation time shall constitute a violation of the CEMS conditions.
- F. Percent of excess emissions are calculated by dividing the total minutes of excess emissions by the total time the source operated and multiplying by one hundred. Failure to maintain compliance may constitute a violation of the CEMS conditions.
- G. All CEMS measuring emissions shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive fifteen minute period unless more cycles are required by the permit. For each CEMS, one-hour averages shall be computed from four or more data points equally spaced over each one hour period unless more data points are required by the permit.
- H. All COMS shall complete a minimum of one cycle of sampling and analyzing for each successive 10-second period and one cycle of data recording for each successive 6-minute period.
- I. When the pollutant from a single affected facility is released through more than one point, a CEMS/COMS shall be installed on each point unless installation of fewer systems is approved, in writing, by the ADEQ CEM Coordinator. When more than one CEM/COM is used to monitor emissions from one affected facility the owner or operator shall report the results as required from each CEMS/COMS.

SECTION III

NOTIFICATION AND RECORD KEEPING

- A. When requested to do so by an owner or operator, the ADEQ CEM Coordinator will review plans for installation or modification for the purpose of providing technical advice to the owner or operator.
- B. Each facility which operates a CEMS/COMS shall notify the ADEQ CEM Coordinator of the date for which the demonstration of the CEMS/COMS performance will commence (i.e. PST, RATA, RAA, CGA). Notification shall be received in writing no less than 15 days prior to testing. Performance test results shall be submitted to the Department within thirty days after completion of testing.
- C. Each facility which operates a CEMS/COMS shall maintain records of the occurrence and duration of start up/shut down, cleaning/soot blowing, process problems, fuel problems, or other malfunction in the operation of the affected facility which causes excess emissions. This includes any malfunction of the air pollution control equipment or any period during which a continuous monitoring device/system is inoperative.
- D. Except for Part 75 CEMs, each facility required to install a CEMS/COMS shall submit an excess emission and monitoring system performance report to the Department (Attention: Air Division, CEM Coordinator) at least quarterly, unless more frequent submittals are warranted to assess the compliance status of the facility. Quarterly reports shall be postmarked no later than the 30th day of the month following the end of each calendar quarter. Part 75 CEMs shall submit this information semi-annually and as part of Title V six (6) month reporting requirement if the facility is a Title V facility.
- E. All excess emissions shall be reported in terms of the applicable standard. Each report shall be submitted on ADEQ Quarterly Excess Emission Report Forms. Alternate forms may be used with prior written approval from the Department.
- F. Each facility which operates a CEMS/COMS must maintain on site a file of CEMS/COMS data including all raw data, corrected and adjusted, repair logs, calibration checks, adjustments, and test audits. This file must be retained for a period of at least five years, and is required to be maintained in such a condition that it can easily be audited by an inspector.
- G. Except for Part 75 CEMs, quarterly reports shall be used by the Department to determine compliance with the permit. For Part 75 CEMs, the semi-annual report shall be used.

SECTION IV

QUALITY ASSURANCE/QUALITY CONTROL

- A. For each CEMS/COMS a Quality Assurance/Quality Control (QA/QC) plan shall be submitted to the Department (Attn.: Air Division, CEM Coordinator). CEMS quality assurance procedures are defined in 40 CFR, Part 60, Appendix F. This plan shall be submitted within 180 days of the CEMS/COMS installation. A QA/QC plan shall consist of procedure and practices which assures acceptable level of monitor data accuracy, precision, representativeness, and availability.
- B. The submitted QA/QC plan for each CEMS/COMS shall not be considered as accepted until the facility receives a written notification of acceptance from the Department.
- C. Facilities responsible for one, or more, CEMS/COMS used for compliance monitoring shall meet these minimum requirements and are encouraged to develop and implement a more extensive QA/QC program, or to continue such programs where they already exist. Each QA/QC program must include written procedures which should describe in detail, complete, step-by-step procedures and operations for each of the following activities:
1. Calibration of CEMS/COMS
 - a. Daily calibrations (including the approximate time(s) that the daily zero and span drifts will be checked and the time required to perform these checks and return to stable operation)
 2. Calibration drift determination and adjustment of CEMS/COMS
 - a. Out-of-control period determination
 - b. Steps of corrective action
 3. Preventive maintenance of CEMS/COMS
 - a. CEMS/COMS information
 - 1) Manufacture
 - 2) Model number
 - 3) Serial number
 - b. Scheduled activities (check list)
 - c. Spare part inventory
 4. Data recording, calculations, and reporting
 5. Accuracy audit procedures including sampling and analysis methods
 6. Program of corrective action for malfunctioning CEMS/COMS
- D. A Relative Accuracy Test Audit (RATA), shall be conducted at least once every four calendar quarters. A Relative Accuracy Audit (RAA), or a Cylinder Gas Audit (CGA), may be conducted in the other three quarters but in no more than three quarters in succession. The RATA should be conducted in accordance with the applicable test procedure in 40 CFR Part 60 Appendix A and calculated in accordance with the applicable performance specification in 40 CFR Part 60 Appendix B. CGA's and RAA's should be conducted and the data calculated in accordance with the procedures outlined on 40 CFR Part 60 Appendix F.

If alternative testing procedures or methods of calculation are to be used in the RATA, RAA or CGA audits prior authorization must be obtained from the ADEQ CEM Coordinator.

E. Criteria for excessive audit inaccuracy.

RATA

All Pollutants except Carbon Monoxide	> 20% Relative Accuracy
Carbon Monoxide	> 10% Relative Accuracy
All Pollutants except Carbon Monoxide	> 10% of the Applicable Standard
Carbon Monoxide	> 5% of the Applicable Standard
Diluent (O ₂ & CO ₂)	> 1.0 % O ₂ or CO ₂
Flow	> 20% Relative Accuracy

CGA

Pollutant	> 15% of average audit value or 5 ppm difference
Diluent (O ₂ & CO ₂)	> 15% of average audit value or 5 ppm difference

RAA

Pollutant	> 15% of the three run average or > 7.5 % of the applicable standard
Diluent (O ₂ & CO ₂)	> 15% of the three run average or > 7.5 % of the applicable standard

- F. If either the zero or span drift results exceed two times the applicable drift specification in 40 CFR, Part 60, Appendix B for five consecutive, daily periods, the CEMS is out-of-control. If either the zero or span drift results exceed four times the applicable drift specification in Appendix B during a calibration drift check, the CEMS is out-of-control. If the CEMS exceeds the audit inaccuracies listed above, the CEMS is out-of-control. If a CEMS is out-of-control, the data from that out-of-control period is not counted towards meeting the minimum data availability as required and described in the applicable subpart. The end of the out-of-control period is the time corresponding to the completion of the successful daily zero or span drift or completion of the successful CGA, RAA or RATA.
- G. A back-up monitor may be placed on an emission source to minimize monitor downtime. This back-up CEMS is subject to the same QA/QC procedure and practices as the primary CEMS. The back-up CEMS shall be certified by a PST. Daily zero-span checks must be performed and recorded in accordance with standard practices. When the primary CEMS goes down, the back-up CEMS may then be engaged to sample, analyze and record the emission source pollutant until repairs are made and the primary unit is placed back in service. Records must be maintained on site when the back-up CEMS is placed in service, these records shall include at a minimum the reason the primary CEMS is out of service, the date and time the primary CEMS was out of service and the date and time the primary CEMS was placed back in service.

APPENDIX C

Facility (Source) Name: Lake Catherine

Permit Requirements

STEP 3

Read the standard requirements.

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

Monitoring Requirements

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

Sulfur Dioxide Requirements

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

Facility (Source) Name: Lake Catherine

Sulfur Dioxide Requirements, Cont'd.

STEP 3, Cont'd.

- (4) Allowances shall be held in, deducted from, or transferred among Allowance Tracking System accounts in accordance with the Acid Rain Program.
- (5) An allowance shall not be deducted in order to comply with the requirements under paragraph (1) of the sulfur dioxide requirements prior to the calendar year for which the allowance was allocated.
- (6) An allowance allocated by the Administrator under the Acid Rain Program is a limited authorization to emit sulfur dioxide in accordance with the Acid Rain Program. No provision of the Acid Rain Program, the Acid Rain permit application, the Acid Rain permit, or an exemption under 40 CFR 72.7 or 72.8 and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization.
- (7) An allowance allocated by the Administrator under the Acid Rain Program does not constitute a property right.

Nitrogen Oxides Requirements

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

Excess Emissions Requirements

- (1) The designated representative of an affected source that has excess emissions in any calendar year shall submit a proposed offset plan, as required under 40 CFR part 77.
- (2) The owners and operators of an affected source that has excess emissions in any calendar year shall:
 - (i) Pay without demand the penalty required, and pay upon demand the interest on that penalty, as required by 40 CFR part 77; and
 - (ii) Comply with the terms of an approved offset plan, as required by 40 CFR part 77.

Recordkeeping and Reporting Requirements

- (1) Unless otherwise provided, the owners and operators of the source and each affected unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time prior to the end of 5 years, in writing by the Administrator or permitting authority:
 - (i) The certificate of representation for the designated representative for the source and each affected unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation, in accordance with 40 CFR 72.24; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the

Facility (Source) Name: Lake Catherine

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

STEP 3, Cont'd.

Recordkeeping and Reporting Requirements, Cont'd.

- (ii) All emissions monitoring information, in accordance with 40 CFR part 75, provided that to the extent that 40 CFR part 75 provides for a 3-year period for recordkeeping, the 3-year period shall apply.
 - (iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the Acid Rain Program; and,
 - (iv) Copies of all documents used to complete an Acid Rain permit application and any other submission under the Acid Rain Program or to demonstrate compliance with the requirements of the Acid Rain Program.
- (2) The designated representative of an affected source and each affected unit at the source shall submit the reports and compliance certifications required under the Acid Rain Program, including those under 40 CFR part 72 subpart I and 40 CFR part 75.

Liability

- (1) Any person who knowingly violates any requirement or prohibition of the Acid Rain Program, a complete Acid Rain permit application, an Acid Rain permit, or an exemption under 40 CFR 72.7 or 72.8, including any requirement for the payment of any penalty owed to the United States, shall be subject to enforcement pursuant to section 113(c) of the Act.
- (2) Any person who knowingly makes a false, material statement in any record, submission, or report under the Acid Rain Program shall be subject to criminal enforcement pursuant to section 113(c) of the Act and 18 U.S.C. 1001.
- (3) No permit revision shall excuse any violation of the requirements of the Acid Rain Program that occurs prior to the date that the revision takes effect.
- (4) Each affected source and each affected unit shall meet the requirements of the Acid Rain Program.
- (5) Any provision of the Acid Rain Program that applies to an affected source (including a provision applicable to the designated representative of an affected source) shall also apply to the owners and operators of such source and of the affected units at the source.
- (6) Any provision of the Acid Rain Program that applies to an affected unit (including a provision applicable to the designated representative of an affected unit) shall also apply to the owners and operators of such unit.
- (7) Each violation of a provision of 40 CFR parts 72, 73, 74, 75, 76, 77, and 78 by an affected source or affected unit, or by an owner or operator or designated representative of such source or unit, shall be a separate violation of the Act.

Effect on Other Authorities

No provision of the Acid Rain Program, an Acid Rain permit application, an Acid Rain permit, or an exemption under 40 CFR 72.7 or 72.8 shall be construed as:

Facility (Source) Name: Lake Catherine

STEP 3, Cont'd.

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

Effect on Other Authorities, Cont'd.

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

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

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

under such State law;

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

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

STEP 4

Read the certification statement, sign, and date.

Certification

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

Name: Myra Glover	
Signature: <i>Myra Glover</i>	Date: 1-7-2016

APPENDIX D

Transport Rule (TR) NO_x Ozone Season Trading Program Requirements

1. The permittee shall comply with the following TR NO_x Ozone Season Trading Program Requirements. The unit-specific monitoring provisions are attached to this Title V permit. [40 C.F.R. § 97 Subpart BBBBB and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
 - a. Designated representative requirements.

The owners and operators shall comply with the requirement to have a designated representative, and may have an alternate designated representative, in accordance with 40 C.F.R. §§ 97.513 through 97.518.
 - b. Emissions monitoring, reporting, and recordkeeping requirements.
 1. The owners and operators, and the designated representative, of each TR NO_x Ozone Season source and each TR NO_x Ozone Season unit at the source shall comply with the monitoring, reporting, and recordkeeping requirements of 40 C.F.R. §§ 97.530 (general requirements, including installation, certification, and data accounting, compliance deadlines, reporting data, prohibitions, and long-term cold storage), 97.531 (initial monitoring system certification and recertification procedures), 97.532 (monitoring system out-of-control periods), 97.533 (notifications concerning monitoring), 97.534 (recordkeeping and reporting, including monitoring plans, certification applications, quarterly reports, and compliance certification), and 97.535 (petitions for alternatives to monitoring, recordkeeping, or reporting requirements).
 2. The emissions data determined in accordance with 40 C.F.R. §§ 97.530 through 97.535 shall be used to calculate allocations of TR NO_x Ozone Season allowances under 40 C.F.R. §§ 97.511(a)(2) and (b) and 97.512 and to determine compliance with the TR NO_x Ozone Season emissions limitation and assurance provisions under paragraph (c) below, provided that, for each monitoring location from which mass emissions are reported, the mass emissions amount used in calculating such allocations and determining such compliance shall be the mass emissions amount for the monitoring location determined in accordance with 40 C.F.R. §§ 97.530 through 97.535 and rounded to the nearest ton, with any fraction of a ton less than 0.50 being deemed to be zero.
 - c. NO_x emissions requirements.
 1. TR NO_x Ozone Season emissions limitation.
 - i. As of the allowance transfer deadline for a control period in a given year, the owners and operators of each TR NO_x Ozone Season source and each TR NO_x Ozone Season unit at the source shall hold, in the source's compliance account, TR NO_x Ozone Season allowances available for deduction for such control period under 40 C.F.R. § 97.524(a) in an amount not less than the tons of total NO_x emissions for such control period from all TR NO_x Ozone Season units at the source.

- ii. If total NO_x emissions during a control period in a given year from the TR NO_x Ozone Season units at a TR NO_x Ozone Season source are in excess of the TR NO_x Ozone Season emissions limitation set forth in paragraph (c)(1)(i) above, then:
 - A. The owners and operators of the source and each TR NO_x Ozone Season unit at the source shall hold the TR NO_x Ozone Season allowances required for deduction under 40 C.F.R. § 97.524(d); and
 - B. The owners and operators of the source and each TR NO_x Ozone Season unit at the source shall pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act, and each ton of such excess emissions and each day of such control period shall constitute a separate violation of 40 C.F.R. § 97 Subpart BBBB and the Clean Air Act.
2. TR NO_x Ozone Season assurance provisions.
- i. If total NO_x emissions during a control period in a given year from all TR NO_x Ozone Season units at TR NO_x Ozone Season sources in the state exceed the state assurance level, then the owners and operators of such sources and units in each group of one or more sources and units having a common designated representative for such control period, where the common designated representative's share of such NO_x emissions during such control period exceeds the common designated representative's assurance level for the state and such control period, shall hold (in the assurance account established for the owners and operators of such group) TR NO_x Ozone Season allowances available for deduction for such control period under 40 C.F.R. § 97.525(a) in an amount equal to two times the product (rounded to the nearest whole number), as determined by the Administrator in accordance with 40 C.F.R. § 97.525(b), of multiplying—
 - A. The quotient of the amount by which the common designated representative's share of such NO_x emissions exceeds the common designated representative's assurance level divided by the sum of the amounts, determined for all common designated representatives for such sources and units in the state for such control period, by which each common designated representative's share of such NO_x emissions exceeds the respective common designated representative's assurance level; and
 - B. The amount by which total NO_x emissions from all TR NO_x Ozone Season units at TR NO_x Ozone Season sources in the state for such control period exceed the state assurance level.
 - ii. The owners and operators shall hold the TR NO_x Ozone Season allowances required under paragraph (c)(2)(i) above, as of

midnight of November 1 (if it is a business day), or midnight of the first business day thereafter (if November 1 is not a business day), immediately after such control period.

- iii. Total NO_x emissions from all TR NO_x Ozone Season units at TR NO_x Ozone Season sources in the state during a control period in a given year exceed the state assurance level if such total NO_x emissions exceed the sum, for such control period, of the State NO_x Ozone Season trading budget under 40 C.F.R. § 97.510(a) and the state's variability limit under 40 C.F.R. § 97.510(b).
 - iv. It shall not be a violation of 40 C.F.R. § 97 Subpart BBBBBB or of the Clean Air Act if total NO_x emissions from all TR NO_x Ozone Season units at TR NO_x Ozone Season sources in the state during a control period exceed the state assurance level or if a common designated representative's share of total NO_x emissions from the TR NO_x Ozone Season units at TR NO_x Ozone Season sources in the state during a control period exceeds the common designated representative's assurance level.
 - v. To the extent the owners and operators fail to hold TR NO_x Ozone Season allowances for a control period in a given year in accordance with paragraphs (c)(2)(i) through (iii) above,
 - A. The owners and operators shall pay any fine, penalty, or assessment or comply with any other remedy imposed under the Clean Air Act; and
 - B. Each TR NO_x Ozone Season allowance that the owners and operators fail to hold for such control period in accordance with paragraphs (c)(2)(i) through (iii) above and each day of such control period shall constitute a separate violation of 40 C.F.R. § 97 Subpart BBBBBB and the Clean Air Act.
3. Compliance periods.
- i. A TR NO_x Ozone Season unit shall be subject to the requirements under paragraph (c)(1) above for the control period starting on the later of May 1, 2015 or the deadline for meeting the unit's monitor certification requirements under 40 C.F.R. § 97.530(b) and for each control period thereafter.
 - ii. A TR NO_x Ozone Season unit shall be subject to the requirements under paragraph (c)(2) above for the control period starting on the later of May 1, 2017 or the deadline for meeting the unit's monitor certification requirements under 40 C.F.R. § 97.530(b) and for each control period thereafter.
4. Vintage of allowances held for compliance.
- i. A TR NO_x Ozone Season allowance held for compliance with the requirements under paragraph (c)(1)(i) above for a control period in a given year must be a TR NO_x Ozone Season allowance that was allocated for such control period or a control period in a prior year.

Season unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such certificate of representation and documents are superseded because of the submission of a new certificate of representation under 40 C.F.R. § 97.516 changing the designated representative.

- ii. All emissions monitoring information, in accordance with 40 C.F.R. § 97 Subpart BBBB.
 - iii. Copies of all reports, compliance certifications, and other submissions and all records made or required under, or to demonstrate compliance with the requirements of, the TR NO_x Ozone Season Trading Program.
2. The designated representative of a TR NO_x Ozone Season source and each TR NO_x Ozone Season unit at the source shall make all submissions required under the TR NO_x Ozone Season Trading Program, except as provided in 40 C.F.R. § 97.518. This requirement does not change, create an exemption from, or otherwise affect the responsible official submission requirements under a title V operating permit program in 40 C.F.R. §§ 70 and 71.
- f. Liability.
1. Any provision of the TR NO_x Ozone Season Trading Program that applies to a TR NO_x Ozone Season source or the designated representative of a TR NO_x Ozone Season source shall also apply to the owners and operators of such source and of the TR NO_x Ozone Season units at the source.
 2. Any provision of the TR NO_x Ozone Season Trading Program that applies to a TR NO_x Ozone Season unit or the designated representative of a TR NO_x Ozone Season unit shall also apply to the owners and operators of such unit.
- g. Effect on other authorities.
- No provision of the TR NO_x Ozone Season Trading Program or exemption under 40 C.F.R. § 97.505 shall be construed as exempting or excluding the owners and operators, and the designated representative, of a TR NO_x Ozone Season source or TR NO_x Ozone Season unit from compliance with any other provision of the applicable, approved state implementation plan, a federally enforceable permit, or the Clean Air Act.

