ADEQ

ARKANSAS
Department of Environmental Quality

January 22, 2015

Curtis Warner
Principle Engineer-Environment and Power Supply
Arkansas Electric Cooperative Corporation - Thomas B. Fitzhugh Generating Station
P.O. Box 194208
Little Rock, AR 72219

Dear Mr. Warner:

The enclosed Permit No. 1165-AOP-R6 is your authority to construct, operate, and maintain the equipment and/or control apparatus as set forth in your application initially received on 12/10/2014.

After considering the facts and requirements of A.C.A. §8-4-101 et seq. as referenced by §8-4-304, and implementing regulations, I have determined that Permit No. 1165-AOP-R6 for the construction and operation of equipment at Arkansas Electric Cooperative Corporation - Thomas B. Fitzhugh Generating Station to be issued and effective on the date specified in the permit, unless a Commission review has been properly requested under Arkansas Department of Pollution Control & Ecology Commission's Administrative Procedures, Regulation 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, Administrative Procedures, Arkansas Pollution Control and Ecology Commission. Such a request shall be in the form and manner required by Regulation 8.603, including filing a written Request for Hearing with the APC&E Commission Secretary at 101 E. Capitol Ave., Suite 205, Little Rock, Arkansas 72201. If you have any questions about filing the request, please call the Commission at 501-682-7890.

Sincerely,

Mike Bates
Chief, Air Division

Enclosure: Final Permit

ADEQ
OPERATING
AIR PERMIT

Pursuant to the Regulations of the Arkansas Operating Air Permit Program, Regulation 26:

Permit No. : 1165-AOP-R6

IS ISSUED TO:

Arkansas Electric Cooperative Corporation - Thomas B. Fitzhugh
Generating Station
6006 Lock and Dam Road
Ozark, AR 72949
Franklin County
AFIN: 24-00012

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:

July 30, 2013 AND July 29, 2018

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

Signed:

Mike Bates
Chief, Air Division

January 22, 2015
Date

Table of Contents

List of Acronyms and Abbreviations

A.C.A.	Arkansas Code Annotated
AFIN	ADEQ Facility Identification Number
CFR	Code of Federal Regulations
CO	Carbon Monoxide
HAP	Hazardous Air Pollutant
lb/hr	Pound Per Hour
MVAC	Motor Vehicle Air Conditioner
No.	Number
NO_x	Nitrogen Oxide
PM	Particulate Matter
PM_{10}	Particulate Matter Smaller Than Ten 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

SECTION I: FACILITY INFORMATION

PERMITTEE:	Arkansas Electric Cooperative Corporation - Thomas B. Fitzhugh Generating Station
AFIN:	24-00012
PERMIT NUMBER:	1165-AOP-R6
FACILITY ADDRESS:	6006 Lock and Dam Road Ozark, AR 72949
MAILING ADDRESS:	P.O. Box 194208 Little Rock, AR 72219
COUNTY:	Franklin County
CONTACT NAME:	Curtis Warner
CONTACT POSITION:	Principle Engineer-Environment and Power Supply
TELEPHONE NUMBER:	(501) 570-2462
REVIEWING ENGINEER:	Kimberly O'Guinn
UTM North South (Y):	Zone 15: 3924757.43 m
UTM East West (X):	Zone 15: 427059.88 m

SECTION II: INTRODUCTION

Summary of Permit Activity

Arkansas Electric Cooperative Corporation (AECC) operates a Westinghouse 501D5A combustion turbine at the existing Thomas B. Fitzhugh Generating Station located at 6006 Lock and Dam Road in Ozark, Arkansas 72949. During the last permit modification, the diesel fuel tank for the emergency generator was inadvertently omitted from the insignificant activities list. This administrative amendment is to reestablish the diesel fuel tank as an insignificant activity. There are no permitted emission changes with this modification.

Process Description

This plant currently produces an electrical output of 170.6 MW/hr at a thermal efficiency of 42.0%. The generating unit at the plant is a Siemens Westinghouse 501D5A combustion turbine with one heat recovery steam generator (HRSG) with duct burners (SN-06). The combustion turbine is permitted to burn a lean mixture of compressed air and pipeline quality natural gas or No. 2 fuel oil. The duct burners burn only pipeline quality natural gas. The combustion turbine is equipped with dry-low NOx burners. The combustion turbine also utilizes water injection when combusting fuel oil to reduce NOx emissions.

SN-06 replaced the original boiler (SN-01) which was at the end of its useful life. SN-06 is now the steam source for the original steam turbine.

This arrangement is typically referred to as combine cycle "repowering". The combustion turbine drives an electric generator along a common shaft. The high temperature exhaust from the combustion turbine is used to generate steam in the HRSG; the HRSG is the steam source for the original steam turbine.

The benefits of this arrangement are much higher thermal efficiency as well as significantly lower emissions per unit of electricity produced.

SN-06 has a diverter damper and bypass stack installed between the combustion turbine exhaust and the HRSG. The diverter damper allows AECC to start up the combustion turbine at a faster rate (which greatly reduced air emissions because the unit achieves optimum combustion in a relatively short amount of time). The damper modulates the exhaust out of the bypass stack and sends the exhaust to the HRSG to produce steam at a rate necessary to accommodate the steam turbine ramping requirements. It also allows the unit to run in simple-cycle mode if the HRSG or steam turbine is shut down for maintenance.

SN-06 has a supplemental duct burner system in the HRSG. During periods of peak electrical demand, the duct burners are used to supplement the amount of waste heat from the combustion turbine allowing the HRSG's maximum steam production to match the existing steam turbine's maximum capability. The duct burner system is used only rarely when the demand for electricity is very high.

SN-06 is primarily used to generate electricity for intermediate and peak load conditions.

Other permitted equipment at the plant includes two fuel oil storage tanks (SN-04 and SN-05) and a helper cooling tower (SN-07). The cooling tower is used to reduce the temperature of the effluent before it is discharged to the Arkansas River.

Regulations

The following table contains the regulations applicable to this permit.

Regulations
Arkansas Air Pollution Control Code, Regulation 18, effective June 18, 2010
Regulations of the Arkansas Plan of Implementation for Air Pollution Control, Regulation 19, effective September 13, 2014
Regulations of the Arkansas Operating Air Permit Program, Regulation 26, effective November 18, 2012
The facility is considered a major stationary source under the Prevention of Significant Deterioration (PSD) regulations as found in 40 CFR §52.21.
The combustion turbines are subject to 40 CFR Part 60, Subpart GG - *Standards of Performance for Stationary Gas Turbines*
The duct burner is subject to regulation under 40 CFR Part 60, Subpart Db- *Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units*
40 CFR Part 60, Subpart IIII-*Standards of Performance for Stationary Compression Ignition Combustion Engine*
40 CFR Part 63 Subpart ZZZZ- *NESHAP for Reciprocating Internal Combustion Engines*
40 CFR Part 63 Subpart CCCCCC – *NESHAP for Gasoline Dispensing Facilities.*
The combustion turbine & duct burner (SN-06) is subject to 40 CFR Part 75, *Continuous Emission Monitoring*

This facility is classified as a major source of greenhouse gas emissions.

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	55.1	91.2
		PM_{10}	55.1	91.2
		SO_2	515.1	840.2
		VOC	13.8	27.4
		CO	307.1	500.0
		NO_X	278.9	448.4
HAPs		Formaldehyde*	1.104	3.101
01	Boiler (680 MMBtu/hr)	Removed from Service		
02	Auxiliary Boiler (8.4 MMBtu/hr)	Removed from Service		
03	Fuel Oil Storage Tank #1	Converted to Water Storage Tank		
04	Fuel Oil Storage Tank #2	VOC	0.4	0.2
05	Fuel Oil Storage Tank #3	VOC	0.4	0.2
06	Westinghouse 501D5A Combustion Turbine & Duct Burner	PM	54.4	88.9
		PM_{10}	54.4	88.9
		SO_2	514.0	839.8
		VOC	11.2	26.4
		CO	305.8	499.6
		NO_x	273.6	447.0
		Formaldehyde*	1.1	3.1
07	Cooling Tower	PM	0.5	2.0
		PM_{10}	0.5	2.0
08	Emergency Diesel Generator	PM	0.1	0.1
		PM_{10}	0.1	0.1
		SO_2	1.0	0.3
		VOC	0.2	0.1
		CO	0.6	0.2
		NO_x	4.1	1.1
		Formaldehyde*	0.004	0.001

EMISSION SUMMARY				
Source Number	Description	Pollutant	Emission Rates	
			lb/hr	tpy
09	Emergency Fire Pump Engine	PM	0.1	0.2
		PM_{10}	0.1	0.2
		SO_2	0.1	0.1
		VOC	1.5	0.4
		CO	0.7	0.2
		NO_x	1.2	0.3
10	Gasoline Tank (140 gal)	VOC	0.1	0.1

*HAPs included in the VOC totals. Other HAPs are not included in any other totals unless specifically stated.
**Air Contaminants such as ammonia, acetone, and certain halogenated solvents are not VOCs or HAPs.

SECTION III: PERMIT HISTORY

Permit #1165-A was issued on June 10, 1991. It allowed this facility to restart operations after six years of down time. It allowed emissions of 9.0 tpy PM_{10}, 4.0 tpy SO_2, 1578 tpy NO_x, 114 tpy CO, and 4.0 tpy VOC.

Permit #1165-AR-1 was issued on September 22, 1992. This permit updated emissions from the facility to reflect testing results. The facility agreed to limit the fuel firing rate to 65% of the maximum in order to avoid PSD. This permit also included emissions from the combustion of #6 fuel oil in times of natural gas curtailment and added the fuel oil heater and 100 HP boiler. Emissions totals were 5.7 tpy PM_{10}, 2.8 tpy SO_2, 1484.1 tpy NO_x, 74.0 tpy CO, and 2.8 tpy VOC.

Permit #1165-AR-2 was issued on May 1, 1994. This modification once again changed the emission rates to reflect testing results and added the fuel oil storage tanks to the permit. Emission rates were 340.1 tpy PM/PM_{10}, 2056.75 tpy SO_2, 13.17 tpy VOC, 77.96 tpy CO, and 2788.98 tpy NO_x.

Permit #1165-AOP-R0 was issued on October 20, 1997. This was the initial Title V for this facility and no physical changes were made. Emission rates were 160 tpy PM/PM_{10}, 2,024.7 tpy SO_2, 13.8 tpy VOC, 77.8 tpy CO, and 2,784.6 tpy NO_x.

Permit #1165-AOP-R1 was issued on February 26, 2002. Arkansas Electric Cooperative Corporation (AECC) constructed a Westinghouse 501D5A combustion turbine at the existing Thomas B. Fitzhugh Generating Station (Fitzhugh)(AFIN:24-00012) located at 6006 Lock and Dam Road in Ozark, Arkansas 72949. This unit is used primarily for intermediate and peak load conditions. This new combustion turbine and associated heat recovery steam generator (SN-06) replaced the existing boiler (SN-01). The existing boiler was retired once the new unit was in operation. Also, the SO_2 emissions for the remaining boiler were revised based on an allowable sulfur content of the fuel oil of 0.33% by weight.

In addition to the combustion turbine, a cooling tower (SN-07) was added to the facility. This cooling tower was installed on the existing non-contact, non-chlorinated cooling water system to decrease outfall temperatures when the river water temperatures are high. The addition of this tower was to allow this facility to better comply with its NPDES permit.

Other changes to the permit included removing the fuel oil burning allowance for the auxiliary boiler (SN-02). This boiler now burns only natural gas as fuel. The existing fuel oil tanks (SN-03 through SN-05) remained in the permit. This permit modification also added an emergency generator and a 300 gallon diesel fuel tank for the emergency generator to the facility's insignificant source list.

Prevention of Significant Deterioration

BACT Summary

The following table is a summary of the BACT determinations for the facility.

Source	Pollutant	BACT Determination		
Combustion Turbine (SN-06)	PM/PM_{10}	Low-ash Fuels	5.9 lb/hr	Natural Gas
			49.8 lb/hr	No. 2 Fuel Oil
	CO	Good combustion practices and design	10 ppm @ 15% O_2	Natural Gas
			90 ppm @ 15% O_2	No. 2 Fuel Oil
	SO2	Good combustion practices and design	1 ppm @ 15% O_2	Natural Gas
		Good combustion practices and design 0.33% sulfur	85 ppm @ 15% O_2	No. 2 Fuel Oil
Duct Burners HRSG	PM/PM_{10}	Low-ash Fuels	4.4 lb/hr	Natural Gas
	CO	Good combustion practices and design	12 ppm @ 15% O_2	Natural Gas
	SO_2	Good combustion practices and design	<1 ppm @ 15% O_2	Natural Gas
Cooling Tower	PM/PM_{10}	Drift Eliminators	0.4 lb/hr	

Permit #1165-AOP-R2 was issued to Arkansas Electric Cooperative Corporation (AECC) on August 23, 2003. This modification allowed a start-up/shutdown exemption to be added to the permit for SN-06.

Permit #1165-AOP-R3 was issued on July 26, 2007. This modification was to renew the facility's existing permit. In addition, the facility requested the following changes:

- The removal of the Main Boiler (SN-01) which was retired in April 2003.
- The listing of the Auxiliary Boiler (SN-02) as an Insignificant Activity.
- The removal of Fuel Oil Storage Tank #1 (SN-03).
- The addition of language to treat the CO monitor as a 40 CFR Part 75 monitor as agreed upon in CAO LIS#06-078.
- The removal of daily observation of opacity requirement when burning natural gas for SN-06.

The facility requested to remove the requirement to use two CEMS on the CT/HRSG (SN-06). The Department was unable to comply with the request because both the duct burner and combustion turbine are affected units under the Acid Rain Program. 40 CFR Part 72, §72.6(a)(3) requires new units to comply with the requirements of the Acid Rain Program.

The facility also requested to remove the requirements to submit semi-annual monitoring reports as required in Specific Condition #3 and #9. The Department was unable to comply with the request. The requirements remained as written. With this permitting action there were no changes to the existing permitted emission limits.

Permit #1165-AOP-R4 was issued on May 18, 2009. This modification was to incorporate Clean Air Interstate Rule (CAIR) requirements set forth in Regulation 19, Chapter 14. Permitted emissions remained unchanged.

Permit #1165-AOP-R5 was issued on July 30, 2013. This modification was to renew the facility's existing permit. During this renewal period the Emergency Diesel Generator (SN-08), the Emergency Fire Pump Engine (SN-09) and the Gasoline Tank (SN-10) were moved from insignificant activities to permitted sources due to their applicability to federal standards. SN-08 is subject to 40 CFR Part 60 Subpart IIII and 40 CFR Part 63 Subpart ZZZZ. SN-09 is subject 40 CFR Part 63 Subpart ZZZZ. SN-10 is subject to 40 CFR Part 63 Subpart CCCCCC.

The facility requested to remove the requirement to use two CEMS on the CT/HRSG (SN-06) to eliminate confusion for reporting, maintenance and operation purposes. The facility suggested removing the CEMS on the HRSG stack and only maintaining the CEMS on the CT. The facility proposed to assume worst-case emissions from the duct burners for reporting purpose.

The Department maintained its previous stance; given that both the duct burner and combustion turbine are affected units under the Acid Rain Program both units must individually meet the federal requirements.

Permitted emissions increased as follows: PM/PM_{10} by 0.3 tons/year (tpy), SO_2 by 0.4 tpy, VOC by 0.6 tpy, CO by 0.4 tpy, NOx by 1.4 tpy and HAPs by 0.001 tpy.

SECTION IV: SPECIFIC CONDITIONS

SN-04 and SN-05
Fuel Oil Storage Tanks

Source Description

Fuel oil for use in the boilers is stored in these tanks. The storage capacities of these tanks are 824,962 gallons and 1,036,702 gallons, respectively. These tanks were installed prior to the effective date of the NSPS Subpart K.

Specific Conditions

1. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by compliance with Specific Condition #2. [Regulation 19 §19.501 et seq. and 40 CFR Part 52, Subpart E]

SN	Pollutant	lb/hr	tpy
04	VOC	0.4	0.2
05	VOC	0.4	0.2

2. The permittee shall not exceed a combined throughput of 35.1 million gallons of fuel oil at these sources. Compliance shall be demonstrated through compliance with Specific Condition #3. [§19.705 of Regulation 19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR Part 70.6]

3. The permittee shall maintain record of the fuel oil received at these sources. These records shall be maintained on a monthly basis and updated monthly. The records shall be kept on site and made available to Department personnel upon request. A copy of the records shall be submitted in accordance with accordance with General Provision #7. [§19.705 of Regulation 19 and 40 CFR Part 52, Subpart E]

SN-06
Westinghouse 501D5A Combustion Turbine & Duct Burner

Source Description

This source is a Westinghouse 501D5A combined-cycle combustion turbine which drives an electric generator, and a heat recovery steam generator (HRSG) which generates steam to drive the existing steam turbine. The generating capacity of the repowered facility unit is estimated at 170.6 MW during summer conditions (98°F). The unit is equipped with duct burners in the HRSG. The duct burners have a heat input of 220 MMBtu/hr.

The combustion turbine is equipped with dry-low NOx (DLN) burners. These burners are designed to limit the amount of NOx produced during the combustion process.

SN-06 utilizes water injection when burning fuel oil to reduce NOx emissions.

Specific Conditions

4. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by compliance with Specific Condition #6 and #9. [Regulation 19 §19.501 et seq. and 40 CFR Part 52, Subpart E]

Pollutant	lb/hr	tpy
PM_{10}	54.4	88.9
SO_2	514.0	839.8
VOC	11.2	26.4
CO	305.8	499.6
NO_x	273.6	447.0

5. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by compliance Specific Condition #6. [Regulation 18 §18.801 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

Pollutant	lb/hr	tpy
PM	54.4	88.9
Formaldehyde	1.1	3.1

6. The permittee shall comply with the following BACT determinations for the combustion turbine / heat recovery system generator. Compliance with the emissions limits set forth in the following table was demonstrated by the initial performance test of the generator performed during August 2003. [§19.901 of Regulation 19 et seq, and 40 CFR Part 52, Subpart E]

Sources	Pollutant	BACT Determination		
Combustion Turbine (SN-06)	PM/PM_{10}	Low-ash Fuels	5.9 lb/hr	Natural Gas
			49.8 lb/hr	No. 2 Fuel Oil
	CO	Good combustion practices and design	10 ppm @ 15% O_2	Natural Gas
			90 ppm @ 15% O_2	No. 2 Fuel Oil
	SO_2	Good combustion practices and design	1 ppm @ 15% O_2	Natural Gas
		Good combustion practices and design 0.33% sulfur	85 ppm @ 15% O_2	No. 2 Fuel Oil
Duct Burners HRSG	PM/PM_{10}	Low-ash Fuels	4.4 lb/hr	Natural Gas
	CO	Good combustion practices and design	12 ppm @ 15% O_2	Natural Gas
	SO_2	Good combustion practices and design	<1 ppm @ 15% O_2	Natural Gas

7. The maximum natural gas usage at this source shall not exceed 9.626 billion cubic feet based on a rolling twelve month total. The maximum fuel oil usage at this source shall not exceed 35.14 million gallons based on a rolling twelve month total. When fuel oil and natural gas are combusted during the same twelve month period, natural gas usage shall be limited by the equation in Specific Condition #8. Compliance shall be demonstrated through compliance with Specific Condition #9. [§19.705 of Regulation 19, 40 CFR Part 52, Subpart E, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

8. When both fuels are combusted in the turbine during the same twelve month period, the following equation shall be used to determine compliance with the fuel limits set forth in Specific Condition #7.

$$y = -0.2535x + 9.626$$

Where:

x = million gallons of No. 2 fuel oil

y = billion standard cubic feet of natural gas

Input the amount of No. 2 fuel oil for x and solve for y. Y will be the maximum amount of natural gas that could be burned in the same twelve month period to remain in compliance. In no case can the limits in Specific Condition #7 be exceeded. [§19.705 of Regulation 19, §18.1004 of Regulation 18, 40 CFR Part 52, Subpart E, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

9. The permittee shall maintain records of the amount of natural gas and fuel oil combusted at this source. These records shall be maintained on a monthly basis and updated by the 15th day of the month following the month to which they pertain. These records shall be maintained on site and made available to Department personnel upon request. A report of the values shall be submitted in accordance with General Provision #7. [§19.705 of Regulation 19, §18.1004 of Regulation 18, 40 CFR Part 52, Subpart E, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

10. The permittee shall maintain, in service, a CEM which monitors the CO emissions for SN-06. With the exception of daily calibrations, quarterly linearity checks, RATA frequencies, and allowable relative accuracies, these CEMS shall be operated in accordance with all applicable conditions of the Department's Continuous Emission Monitoring Systems Conditions as found in Appendix C of this permit. [§19.703 of Regulation 19, 40 CFR Part 52, Subpart E, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

11. The duct burner is subject to and shall comply with applicable provisions of 40 CFR Part 60 Subpart A - General Provisions and 40 CFR Part 60 Subpart Db. A copy of Subpart Db is provided in Appendix A. Applicable provisions of Subpart Db include, but are not limited to, the following:

    a. NO_x emissions shall not exceed 0.2 lb/MMBtu heat input. [40 CFR §60.44b(a)(4)(i)]

    b. The nitrogen oxides emission standards under §60.44b apply at all times, this includes periods of startup, shutdown, and malfunction. [40 CFR §60.46b(a)]

    c. To determine compliance with the emission limit for nitrogen oxides required by 40 CFR §60.44b(a)(4) for duct burners, the owner or operator of the facility shall conduct a performance test required under 40 CFR §60.8 using the nitrogen oxides and oxygen measurement procedures in 40 CFR part 60 Appendix A,

Method 20. During the performance test, one sampling site shall be located as close as practicable to the exhaust of the turbine; as provided by 6.1.1 of Method 20. A second sampling site shall be located at the outlet to the steam generating unit. Measurements of nitrogen oxides and oxygen shall be taken at both sampling sites during the performance test. The nitrogen oxides emission rate from the combined cycle system shall be calculated by subtracting the nitrogen oxides emission rate measured at the sampling site at the outlet from the combustion turbine from the nitrogen oxides emission rate measured at the sampling site at the outlet from the HRSG. [40 CFR §60.46b(f)]

d. The owner shall record and maintain records of the amounts of fuel combusted during each day and calculate the annual capacity factor individually for each calendar quarter. The annual capacity factor is determined on a 12-month rolling average basis with a new annual capacity factor calculated at the end of each calendar month. [40 CFR §60.49b(d)]

e. All records required under the section shall be maintained by the owner or operator of the facility for a period of 2 years following the date of such record. [40 CFR §60.49b(o)]

[§19.304 of Regulation 19 and 40 CFR Part 60 Subpart Db, Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units]

12. The visible emissions from this source shall not exceed 20% opacity when burning fuel oil and 5% opacity when burning natural gas. Compliance shall be demonstrated through compliance with Specific Condition #13 and #14, respectively. [§19.503 of Regulation 19 and 40 CFR Part 52, Subpart E]

13. The permittee shall conduct daily observations of the opacity from this source during fuel oil combustion and keep a record of these observations. This daily observation may be performed with a continuous opacity monitor during fuel oil combustion if the permittee chooses to do so. If visible emissions that exceed 20% opacity are detected, the permittee shall take corrective action and perform the observation again. If visible emissions above permitted levels are still present, the permittee shall conduct a 6-minute opacity reading in accordance with EPA Reference Method #9. The results of these readings shall be kept on site and made available to Department personnel upon request. [§19.705 of Regulation 19, 40 CFR Part 52, Subpart E, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

14. Compliance with the natural gas opacity limit of 5% shall be demonstrated by burning only pipeline natural gas. There is no daily opacity observation required when burning natural gas. [Regulation No. 18 §18.501, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

15. The Combustion Turbine/HRSG system (SN-06) is subject to and shall comply with all applicable provisions of 40 CFR Part 60, Subpart A - General Provisions and Subpart GG - Standards of Performance for Stationary Gas Turbines. Applicable provisions of Subpart GG include, but are not limited to the following:

    a. NO_x emissions shall not exceed 163.1 ppmvd at 15% O_2 at ISO conditions. This condition will be met by complying with Specific Condition #3. [40 CFR §60.332(a)(1)]

    b. No fuel shall be fired at SN-06 that contains sulfur in excess of 0.8 percent by weight. [40 CFR §60.333(b)]

    c. The sulfur content and nitrogen content of the natural gas fired at SN-06 shall be determined and recorded daily. [40 CFR §60.334(b)]

    d. Periods of excess emissions for NO_x is defined as any period during which the fuel-bound nitrogen in the fuel is greater than the maximum nitrogen content allowed per the performance test. A report of excess emissions shall include the average fuel consumption, ambient conditions, gas turbine load, nitrogen content of the fuel during the period of excess emissions, and copies of any graphs/figures developed during the performance testing. [40 CFR §60.334(c)(1)]

    e. Periods of excess emissions for SO_2 is defined as any daily period during which the sulfur content of the fuel being fired exceeds 0.8 percent. [40 CFR §60.334(c)(2)]

    f. Initial compliance testing for NO_x and SO_2 is required within 180 days after start-up. The SO_2 demonstration required will be analysis of the sulfur content of the natural gas using ASTM D 1072-80, D 3031-81, D 4084-82, or D 3246-81. The NOx testing shall be conducted in accordance with testing methods in 40 CFR Part 60 Appendix A or alternative approved methods. The testing shall be conducted for each fuel, at four points in the normal operating range of the turbine. [40 CFR §60.335 and §60.8

    g. The monitoring and testing requirements of Specific Condition #15(c), #15(d) and #15(f) are waived if EPA approves the use of 40 CFR Part 75 NO_x CEMS monitoring procedures as an alternative to these requirements. If this approval is granted, excess emissions reporting per Specific Condition #15(d) shall be based on the 40 CFR Part 75 CEMS data.

[§19.304 of Regulation 19, and 40 CFR Part 60, Subpart GG]

16. The permittee shall perform an initial stack test on each Combustion Turbine/HRSG with Duct Burner stack for CO to demonstrate compliance with the limits specified in Specific Condition #4. Continuous compliance shall be demonstrated by complying with Specific Condition #19. [§19.702 and §19.901 of Regulation 19, and 40 CFR Part 52, Subpart E]

17. The permittee shall perform an initial stack test on each Combustion Turbine/HRSG with Duct Burner stack for NO_x to demonstrate compliance with the limits specified in Specific Condition #4. Continuous compliance shall be demonstrated by complying with Specific Condition #19. [§19.702 and §19.901 of Regulation 19, and 40 CFR Part 52, Subpart E]

18. Monitoring requirements relative to NO_x emissions from the Combustion Turbine/HRSG shall be as follows:
    a. The permittee shall install, calibrate, maintain, and operate a NOx CEMS on each Combustion Turbine/HRSG with Duct Burner stack. The CEMS shall comply with 40 CFR Part 75. The permittee shall use the measured concentrations of NOx and O2 in the flue gas along with the measured fuel flow (or another 40 CFR Part 75 procedure) to calculate NOx mass emissions. The CEMS shall be used to demonstrate compliance with the NOx mass emission limits in Specific Condition #4.

    b. The permittee shall monitor fuel nitrogen content (unless approval from U.S. EPA to use the NOx CEMS in lieu of fuel nitrogen content sampling is obtained).

    c. The permittee shall maintain records which demonstrate compliance with Specific Condition #18 (a) and (b).

    [§19.703 of Regulation 19, 40 CFR Part 52, Subpart E, 40 CFR Part 60, Subpart GG, 40 CFR Part 75, Subpart B and A.C.A. §8- 4-203 as referenced by §8-4-304 and §8-4-311]

19. CEMS shall be used to demonstrate compliance with NOx and CO emission limits in Specific Condition #4 and NO_x limits listed in Specific Condition #11. [§19.901 of Regulation 19 et seq, 40 CFR Part 52, Subpart E, §19.304 of Regulation 19, and 40 CFR Part 75]

20. The permittee shall perform an initial stack test on the Combustion Turbine/HRSG with Duct Burner stack for formaldehyde and to quantify other non-criteria pollutants not accounted for in this permit. This test will be used to demonstrate compliance with the limits specified in Specific Condition #5. Testing shall be performed one time in accordance with Plantwide Condition #4 and EPA Reference Method 18 as found in 40 CFR Part 60, Appendix A. Testing shall be performed at or near maximum operating load. The testing was performed on August 12-14, 2003 which showed the facility to be in compliance, and no further testing for these pollutants is required. [§18.1002 of Regulation 18, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

21. For the purposes of this permit, "upset condition" reports as required by §19.601 of Regulation 19 shall not be required for periods of startup excess emissions from SN-06 unless such periods of excess startup emissions exceed a four hour period or are in violation after initial attainment of 80 megawatts from the combustion turbine generator (whichever is less). Reports shall not be required during a one hour period preceding shutdown. This shall only apply for "upset conditions" which directly result from the

start-up and/or shut down of SN-06. All other "upset conditions" must be reported as required by Regulation 19. Additionally, the following conditions must be met during start up and shut down periods.

a. CEM systems for SN-06 must be operating during start up and shut down. The emissions recorded during these periods shall count toward the annual ton per year permit limits.

b. The permittee shall maintain a log or equivalent electronic data storage which shall indicate the date, start time, and duration of each start up and shut down procedure. "Start up" shall be defined as the period of time beginning with the first fire within the combustion turbine firing chamber until the unit initially reaches an output of 80 megawatts from the combustion turbine generator or a maximum of four hours. "Shut down" shall be defined as the period of time up to one hour beginning with the initiation of the shut down procedure and ending when emissions are no longer detected from the source. This log or equivalent electronic data storage shall be made available to Department personnel upon request.

c. Excess opacity is not included. If any excess opacity should ever occur, upset condition reporting is required.

d. Operating mode, specifically the current combustion turbine operating load, shall be able to be identified at any time from the control area for that unit and shall be available for inspection by ADEQ representatives at any time.

e. Requirements of ADEQ CEMS Condition (II) (F) are not applicable to this permit. However, the facility shall still comply with the 40 CFR 60.7 requirements to maintain 95% CEMS uptime during non startup/ shutdown periods and 99% compliance demonstration during these periods along with the required reporting requirements.

[§19.601 of Regulation 19 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

SN-07
Cooling Tower

Source Description

The cooling tower is use to reduce the temperature of the effluent before it is discharged to the Arkansas River.

Specific Conditions

22. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by compliance with Specific Condition #24. [Regulation 19 §19.501 et seq. and 40 CFR Part 52, Subpart E]

Pollutant	lb/hr	tpy
PM_{10}	0.5	2.0

23. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by compliance with Specific Condition #24. [Regulation 18 §18.801 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

Pollutant	lb/hr	tpy
PM	0.5	2.0

24. The permittee shall operate the cooling tower with a drift eliminator according to the manufacturer's specifications. [§19.303 of Regulation 19, §18.1104 of Regulation 18, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

25. The permittee shall not cause to be discharged to the atmosphere from SN-07 exhausts which exhibit greater than 20% opacity. Compliance with this opacity limit shall be demonstrated by compliance with Specific Condition #26. [Regulation 19, §19.503 and 40 CFR 52 Subpart E]

26. Within 60 days of issuance of Permit 1165-AOP-R5, the facility shall begin testing for total dissolved solids (TDS) at SN-07. The permittee shall monitor monthly the TDS. Results less than 1,000 ppm TDS, or equivalent conductivity, will demonstrate compliance with the requirements in Specific Conditions #22 and #23. These records shall be updated on a monthly basis. If the facility chooses to use conductivity in place of TDS testing the permittee shall develop a conductivity vs. TDS curve and test for conductivity on a weekly basis when the cooling towers are operating. The conductivity result shall not exceed the level which correlates with 1,000 ppm TDS for any sample result taken when the cooling towers are operating. The permittee shall also determine, directly, TDS once every quarter. The results shall be kept on site and made available to Department personnel upon request. The permittee shall submit these records in accordance with General Provision 7. [Regulation 19, §19.705 and §19.703, Regulation 18, §18.1004 and §18.1003, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

SN-08
Emergency Diesel Generator

Source Description

The Emergency Diesel Generator is a reciprocating internal combustion engine subject to NSPS Subpart IIII and NESHAP Subpart ZZZZ. The unit is a 460-hp rated diesel-fired engine that produces approximately 300 kW at full-load.

Specific Conditions

27. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by compliance with Specific Condition #29 through #36. [Regulation 19 §19.501 et seq. and 40 CFR Part 52, Subpart E]

Pollutant	lb/hr	tpy
PM_{10}	0.1	0.1
SO_2	1.0	0.3
VOC	0.2	0.1
CO	0.6	0.2
NO_x	4.1	1.1

28. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by compliance with Specific Condition #29 through #36. [Regulation 18 §18.801 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

Pollutant	lb/hr	tpy
PM	0.1	0.1
Formaldehyde	0.004	0.001

29. The permittee shall meet emission standards for SN-08 for the same model year and maximum engine power in 40 CFR 89.112 and 40 CFR 89.113 for all pollutants beginning in the model year 2007 and maximum engine power for the 2007 model year and later emergency stationary CI ICE. The permitte shall meet the emission standards as required in §60.4205 over the entire life of the engine. [Regulation No. 19 §19.304 and 40 CFR Part 60 Subpart IIII, §60.4202(a)(2), §60.4205(b), §60.4206]

30. The permittee shall only use diesel fuel that meets the requirements of 40 CFR §80.510(a) and (b). [Regulation No. 19 §19.304 and 40 CFR Part 60 Subpart IIII, §60.42027(a)(b)]

31. The permittee shall not import or install a stationary CI ICE produced in previous years as listed in §60.4208(a)(b)(h)(i). [Regulation No. 19 §19.304 and 40 CFR Part 60 Subpart IIII, §60.4208]

32. The permittee shall install a non-resettable hour meter prior to startup of SN-08. The permittee shall keep records of the operation of SN-08 in emergency and non-emergency service that is recorded through the non-resettable hour meter. The permittee shall record the time of operation of the engine and the reason the engine was in operation during that time. [Regulation No. 19 §19.304 and 40 CFR Part 60 Subpart IIII, §60.4209(a), §60.4214(b)]

33. The permittee shall install a diesel particulate filter with a backpressure monitor that notifies the permittee when the high pressure limit of the engine is approached to meet the monitoring requirements of Subpart IIII. The permittee shall keep records of any corrective action taken after the backpressure monitor has notified the permittee. [Regulation No. 19 §19.304 and 40 CFR Part 60 Subpart IIII, §60.4209(b), §60.4214(b)]

34. The permittee shall demonstrate compliance with the emission standards in Subpart IIII by complying with the following:

    a. Operate and maintain SN-08 according to the manufacturer's emission-related written instructions;

    b. Change only those emission related settings that are permitted by the manufacturer; and

    c. Meet the requirements of 40 CFR parts 89, 94, and/or 1068, as applicable.

    [Regulation No. 19 §19.304 and 40 CFR Part 60 Subpart IIII, §60.4211(a)(1)(2)(3)]

35. The permittee may operate SN-08 for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by the entities listed in §60.4211(f). Maintenance checks and readiness testing of such units is limited to 100 hours per year. There is no time limit on the use of SN-08 in emergency situations. The permittee may petition the Department for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the permittee maintains records indicating that Federal, State, or local standards required maintenance and testing of SN-08 beyond 100 hours per year. SN-08 may operate up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply

power to an electric grid or otherwise supply non-emergency power as part of a financial arrangement with another entity. Any operations other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as permitted in §60.4211, is prohibited. [Regulation No. 19 §19.304 and 40 CFR Part 60 Subpart IIII, §60.4211(f)]

36. If the permittee does not install, configure, operate, and maintain SN-08 according to the manufacturer's emission related written instructions, or if the permittee changes emission related settings in a way that is not permitted by the manufacturer, the permittee shall demonstrate compliance through compliance with §40.4211(g). [Regulation No. 19 §19.304 and 40 CFR Part 60 Subpart IIII, §60.4211(g)]

SN-09
Emergency Fire Pump Engine

Source Description

The Emergency Fire Pump Engine is a gasoline-fired engine that drives the emergency fire pump. This unit is grandfathered from NSPS JJJJ due to its date of construction, but it is subject to NESHAP ZZZZ. The pump engine is a 100-hp gasoline-fired spark ignition (SI) emergency engine located at an area source for HAPs.

Specific Conditions

37. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by compliance with Specific Condition #39 through #50. [Regulation 19 §19.501 et seq. and 40 CFR Part 52, Subpart E]

Pollutant	lb/hr	tpy
PM_{10}	0.1	0.2
SO_2	0.1	0.1
VOC	1.5	0.4
CO	0.7	0.2
NO_x	1.2	0.3

38. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by compliance with Specific Condition #39 through #50. [Regulation 18 §18.801 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

Pollutant	lb/hr	tpy
PM	0.1	0.2

39. The permittee must comply with applicable emission limitations and operating limitations of 40 CFR Part 63 Subpart ZZZZ no later than October 19, 2013. [Regulation 19 §19.304 and 40 CFR Part 63, Subpart ZZZZ §63.6595(a)(1)]

40. The permittee shall meet the following requirements of Table 2d of 40 CFR Part 63 Subpart ZZZZ:

    a. Change oil and filter every 500 hours of operation or annually, whichever comes first.

b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first.

c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

[Regulation No. 19 §19.304 and 40 CFR Part 63, Subpart ZZZZ, §63.6603(a)]

41. The permittee shall operate and maintain SN-09 according to the manufacturer's emission-related written instructions or develop your own maintenance plan which must provide to the extent practicable for the maintenance and operation of SN-09 in a manner consistent with good air pollution control practice for minimizing emissions. [Regulation No. 19 §19.304 and 40 CFR Part 63, Subpart ZZZZ, §63.6625(e)]

42. The permittee shall install a non-resettable hour meter if one is not already installed, by October 19, 2013. [Regulation No. 19 §19.304 and 40 CFR Part 63, Subpart ZZZZ, §63.6625(f)]

43. The permittee shall minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup in Table 2d of 40 CFR Part 63 Subpart ZZZZ apply. [Regulation No. 19 §19.304 and 40 CFR Part 63, Subpart ZZZZ, §63.6625(h)]

44. The permittee may use an oil analysis program in order to extend the specified oil change requirement in Table 2d of 40 CFR Part 63 Subpart ZZZZ. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, Viscosity, and percent water content. [Regulation No. 19 §19.304 and 40 CFR Part 63, Subpart ZZZZ, §63.6625(j)]

45. The permittee shall report each instance in which the emission limitation or operating limitation in Table 2d to 40 CFR Part 63 Subpart ZZZZ was not meet. These deviations must be reported according to the requirements in §63.6650. If the permittee change catalyst, the permittee must reestablish the values of the operating parameters measured during the initial performance test. When the permittee reestablish the operating parameters values, the facility must conduct a performance test to demonstrate the required emission limitation application to SN-09 is met. [Regulation No. 19 §19.304 and 40 CFR Part 63, Subpart ZZZZ, §63.6640(b)]

46. The permittee may operate the emergency stationary RICE for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State, or local government, the manufacturer, the vendor or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. The emergency stationary RICE may be operated up to 50 hours per year in non-emergency situations, but those hours per year are counted towards the 100 hours per year provided for maintenance and testing. The hours cannot be used for peak shaving or to generate income for the facility to supply power to the electric grid or otherwise supply power as part of a financial arrangement with another entity. There are no time limits for the use of an emergency stationary RICE in emergency situations. The engine may not be operated for more than 30 minutes prior to the time when the emergency conditions expected to occur, and the engine operation must be terminated immediately after the facility is notified that the emergency condition is no longer imminent. [Regulation No. 19 §19.304 and 40 CFR Part 63, Subpart ZZZZ, §63.6640(f)(1)(i, ii, iii)]

47. The permittee shall maintain the following records if required:

a. A copy of each notification and report that has been submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance status that was submitted;
b. Records of the occurrence and duration of each malfunction of operation or the air pollution control and monitoring equipment;
c. Records of performance tests and performance evaluations;
d. Records of all required maintenance performed on the air pollution control and monitoring equipment;
e. Records of actions taken during periods of malfunction to minimize emissions in accordance with §66.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.

[Regulation No. 19 §19.304 and 40 CFR Part 63, Subpart ZZZZ, §63.6655(a)(1-5)]

48. The permittee shall keep records of the maintenance conducted on the stationary RICE in order to demonstrate that it was operated and maintained along with the after-treatment control device (if any) according to the maintenance plan. [Regulation No. 19 §19.304 and 40 CFR Part 63, Subpart ZZZZ, §63.6655(e)(2)]

49. The permittee shall keep records of the hours of operation of engine that is recorded through the non-resettable hour meter. The permittee must document how many hours are spent for emergency operation; including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engines are used for demand response operation, records of notification of the emergency situation, and the time the engine was operated as part of demand response. [Regulation No. 19 §19.304 and 40 CFR Part 63, Subpart ZZZZ, §63.6655(f)(2)]

50. The permittee shall maintain files of all information required by 40 CFR Part 63 Subpart ZZZZ recorded in a form suitable and readily available for expeditious inspection and review. The files shall be retained for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent 2 years of data shall be retained on site. [Regulation No. 19 §19.304 and 40 CFR Part 63, Subpart ZZZZ,§63.6660]

SN-10
Gasoline Tank

Source Description

The Emergency Fire Pump Engine gasoline tank, SN-10, is a 140-gallon tank that fuels the Emergency Fire Pump Engine (SN-09). The monthly throughput of this tank is less than 10,000 gallons of gasoline. This unit is subject to NESHAP CCCCCC.

Specific Conditions

51. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by compliance with Specific Condition #52. [Regulation 19 §19.501 et seq. and 40 CFR Part 52, Subpart E]

Pollutant	lb/hr	tpy
VOC	0.1	0.1

52. The permittee shall not exceed the maximum throughput of 10,000 gallons of gasoline per month at SN-10. [Regulation No. 19 §19.705, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR 70.6]

53. The permittee shall maintain records to demonstrate compliance with Specific Condition #52. The permittee shall update these records by the fifteenth day of the month following the month. Records for each calendar year shall be maintained on-site and made available to Department personnel upon request. [§19.705 of Regulation 19 and 40 CFR Part 52 Subpart E]

54. The permittee shall not allow gasoline to be handled in a manner that would result in vapor releases to the atmosphere for extended periods of time. Measures to be taken include, but are not limited to, the following:

    a. Minimize gasoline spills;
    b. Clean up spills as expeditiously as practicable;
    c. Cover all open gasoline storage tank fill-pipes with a gasketed seal when not in use;
    d. Minimize gasoline sent to open waste collection systems that collect and transport gasoline to reclamation and recycling devices, such as oil/water separators.

    [Regulation No. 19 §19.304 and 40 CFR Part 63, Subpart CCCCCC §63.1116(a)]

55. The permittee shall have records available within 24 hours of a request by the Department to document gasoline throughput. [Regulation No. 19 §19.304 and 40 CFR Part 63, Subpart CCCCCC §63.1116(b)]

SECTION V: COMPLIANCE PLAN AND SCHEDULE

Arkansas Electric Cooperative Corporation - Thomas B. Fitzhugh Generating Station 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. [Regulation 19 §19.704, 40 CFR Part 52, Subpart E, and A.C.A. §8-4-203 as referenced by §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. [Regulation 19 §19.410(B) and 40 CFR Part 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 Department or within 180 days of permit issuance if no date is specified. The permittee must notify the Department 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 Department within thirty (30) calendar days after completing the testing. [Regulation 19 §19.702 and/or Regulation 18 §18.1002 and A.C.A. §8-4-203 as referenced by §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.

    [Regulation 19 §19.702 and/or Regulation 18 §18.1002 and A.C.A. §8-4-203 as referenced by §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. [Regulation 19 §19.303 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

6. This permit subsumes and incorporates all previously issued air permits for this facility. [Regulation 26 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

Acid Rain (Title IV)

7. 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. [Regulation 26 §26.701 and 40 CFR 70.6(a)(4)]

Title VI Provisions

8. The permittee must comply with the standards for labeling of products using ozone-depleting substances. [40 CFR Part 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.

9. The permittee must comply with the standards for recycling and emissions reduction, except as provided for MVACs in Subpart B. [40 CFR Part 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.

10. 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 CFR Part 82, Subpart A, Production and Consumption Controls.

11. 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 CFR part 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.

12. The permittee can switch from any ozone depleting substance to any alternative listed in the Significant New Alternatives Program (SNAP) promulgated pursuant to 40 CFR Part 82, Subpart G.

CAIR

13. The permittee shall comply with the monitoring, reporting, and recordkeeping requirements of subpart HHHH of 40 CFR part 96. The permittee shall comply with the NO_x emission requirements established under CAIR. The permittee shall report and maintain the records required by subpart HHHH of 40 CFR part 96. A copy of the CAIR permit is attached to this Title V permit. [Regulation 19 §19.1401 and 40 CFR Part 52, Subpart E]

SECTION VII: INSIGNIFICANT ACTIVITIES

The following sources are insignificant activities. Any activity that has a state or federal applicable requirement shall be considered a significant activity even if this activity meets the criteria of §26.304 of Regulation 26 or listed in the table below. Insignificant activity determinations rely upon the information submitted by the permittee in an application dated January 26, 2012.

Description	Category
Main building heater (4.185 MMBTU/hr natural gas fired)	A-1
Shop heater (0.15 MMBTU/hr natural gas fired)	A-1
Warehouse heater (0.08 MMBTU/hr natural gas fired)	A-1
Warehouse heater (0.075 MMBTU/hr natural gas fired)	A-1
Intake heater (0.15 MMBTU/hr natural gas fired)	A-1
Firehouse heater (0.08 MMBTU/hr natural gas fired)	A-1
Diesel fuel tank for emergency generator (250 gallon)	A-3
Acid Tank (3,300 gallon tank – 30% HCl)	A-4
Caustic tank (3,300 gallon tank –25% NaOH)	A-4

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 (A.C.A. §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 (A.C.A. §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 (A.C.A. §8-4-101 et seq.) as the origin of and authority for the terms or conditions are enforceable under this Arkansas statute. [40 CFR 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 CFR 70.6(a)(2) and Regulation 26 §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 Department takes final action on the renewal application. The Department will not necessarily notify the permittee when the permit renewal application is due. [Regulation 26 §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 CFR 70.6(a)(1)(ii) and Regulation 26 §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 CFR 70.6(a)(3)(ii)(A) and Regulation 26 §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 CFR 70.6(a)(3)(ii)(B) and Regulation 26 §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 Regulation No. 26, §26.2 must certify all required reports. The permittee will send the reports to the address below:

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

    [40 CFR 70.6(a)(3)(iii)(A) and Regulation 26 §26.701(C)(3)(a)]

8. The permittee shall report to the Department all deviations from permit requirements, including those attributable to upset conditions as defined in the permit.

    a. For all upset conditions (as defined in Regulation19, § 19.601), the permittee will make an initial report to the Department 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 average 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 Department 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.

[Regulation 19 §19.601 and §19.602, Regulation 26 §26.701(C)(3)(b), and 40 CFR 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 CFR 70.6(a)(5), Regulation 26 §26.701(E), and A.C.A. §8-4-203 as referenced by §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 CFR 70.6(a)(6)(i) and Regulation 26 §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 CFR 70.6(a)(6)(ii) and Regulation 26 §26.701(F)(2)]

12. The Department 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 CFR 70.6(a)(6)(iii) and Regulation 26 §26.701(F)(3)]

13. This permit does not convey any property rights of any sort, or any exclusive privilege. [40 CFR 70.6(a)(6)(iv) and Regulation 26 §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 Department may require the permittee to furnish such records directly to the Director along with a claim of confidentiality. [40 CFR 70.6(a)(6)(v) and Regulation 26 §26.701(F)(5)]

15. The permittee must pay all permit fees in accordance with the procedures established in Regulation 9. [40 CFR 70.6(a)(7) and Regulation 26 §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 CFR 70.6(a)(8) and Regulation 26 §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 CFR 70.6(a)(9)(i) and Regulation 26 §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 Department specifically designates terms and conditions of the permit as being federally unenforceable under the Act or under any of its applicable requirements. [40 CFR 70.6(b) and Regulation 26 §26.702(A) and (B)]

19. Any document (including reports) required by this permit must contain a certification by a responsible official as defined in Regulation 26, §26.2. [40 CFR 70.6(c)(1) and Regulation 26 §26.703(A)]

20. The permittee must allow an authorized representative of the Department, upon presentation of credentials, to perform the following: [40 CFR 70.6(c)(2) and Regulation 26 §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 Department. All compliance certifications required by this permit must include the following: [40 CFR 70.6(c)(5) and Regulation 26 §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 Department 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: [Regulation 26 §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. [A.C.A. §8-4-203 as referenced by §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 Department approval. The Department 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.

[Regulation 18 §18.314(A), Regulation 19 §19.416(A), Regulation 26 §26.1013(A), A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR Part 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 Department approval. Any such emissions shall be included in the facility's total emissions and reported as such. The Department 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 Department 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.

[Regulation 18 §18.314(B), Regulation 19 §19.416(B), Regulation 26 §26.1013(B), A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR Part 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 Department approval. The Department 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.

[Regulation 18 §18.314(C), Regulation 19 §19.416(C), Regulation 26 §26.1013(C), A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR Part 52, Subpart E]

CERTIFICATE OF SERVICE

I, Pamela Owen, hereby certify that a copy of this permit has been mailed by first class mail to Arkansas Electric Cooperative Corporation - Thomas B. Fitzhugh Generating Station, P.O. Box 194208, Little Rock, AR, 72219, on this 21st day of January, 2015.

22nd

Pamela Owen

Pamela Owen, ASIII, Air Division