ADEQ
OPERATING
AIR PERMIT

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

Permit #: 1165-AOP-R2

Renewal #1

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:

February 15, 2002 and February 14, 2007

AND IS SUBJECT TO ALL LIMITS AND CONDITIONS CONTAINED HEREIN.

Signed:

_____

Keith A. Michaels Date Modified

SECTION I: FACILITY INFORMATION

PERMITTEE:	Arkansas Electric Cooperative Corporation- Thomas B. Fitzhugh Generating Station
AFIN:	24-00012
PERMIT NUMBER:	1165-AOP-R2
FACILITY ADDRESS:	6006 Lock and Dam Road Ozark, AR 72949
COUNTY:	Franklin
CONTACT POSITION:	Jimmy Fletcher, Plant Superintendent
TELEPHONE NUMBER:	(501) 667-2134
REVIEWING ENGINEER:	Wesley Crouch
UTM North-South (Y):	Zone 15: 3924.5
UTM East-West (X):	Zone 15: 427

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 (Fitzhugh)(CSN:24-0012) located at 6006 Lock and Dam Road in Ozark, Arkansas 72949. This unit is used primarily for intermediate and peak load conditions.

This facility has requested that a start-up/shutdown exemption be added to the permit for SN-06.

Process Description

This plant currently produces an electrical output of 170.6 MW/hr at a thermal efficiency of 42.0%. SN-06 has a diverter damper and bypass stack installed between the combustion turbine exhaust and the HRSG. This damper allows AECC to start up the combustion turbine at a faster rate. The damper also modulates the exhaust out of the bypass stack and exhausts 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 when needed.

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.

In order to reduce the temperature of the effluent before it is discharged to the Arkansas river, a cooling tower (SN-07) has been installed.

Regulations

The facility is subject to regulation under the *Arkansas Air Pollution Control Code* (Air Code), the *Regulations of the Arkansas Plan of Implementation for Air Pollution Control* (SIP), and the *Regulations of the Arkansas Operating Air Permit Program* (Title V). **The facility is considered a major stationary source for carbon monoxide (CO) 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*. The boiler (SN-01) is subject to 40 CFR Part 75, *Continuous Emission Monitoring*.

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The following table is a summary of emissions from the facility. Specific conditions and emissions for each source can be found starting on the page cross referenced in the table. This table, in itself, is not an enforceable condition of the permit.

EMISSION SUMMARY					
Source No.	Description	Pollutant	Emission Rates		Cross Reference Page
			lb/hr	tpy	
Total Allowable Emissions prior to removal of SN-01		PM	111.1	158.1	
		PM_{10}	111.1	158.1	
		SO_2	1,636.1	2,000.1	
		VOC	6.0	14.0	
		CO	28.0	80.3	
		NO_x	975.9	2,779.9	
Total Allowable Emissions after SN-01 is retired and SN-02 becomes an insignificant source		PM	54.9	90.9	
		PM_{10}	54.9	90.9	
		SO_2	514.0	839.8	
		VOC	12.4	26.9	
		CO	305.8	499.6	
		NO_x	273.6	447.0	
		Formaldehyde [1]	1.1	3.1	
01	Boiler (680 MMBtu/hr) Installed 1963	PM	111.0	158.0	13
		PM_{10}	111.0	158.0	
		SO_2	1,636.0	2,000.0	
		VOC	4.7	13.0	
		CO	27.2	77.0	
		NO_X	975.0	2,776.0	
02	Auxiliary Boiler** (8.4 MMBtu/hr)	PM	0.1	0.3	20
		PM_{10}	0.1	0.3	
		SO_2	0.1	0.1	
		VOC	0.1	0.5	
		CO	0.8	3.3	
		NO_x	0.9	3.9	

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EMISSION SUMMARY					
Source No.	Description	Pollutant	Emission Rates		Cross Reference Page
			lb/hr	tpy	
03	Fuel Oil Storage Tank #1	VOC	0.4	0.1	21
04	Fuel Oil Storage Tank #2	VOC	0.4	0.2	21
05	Fuel Oil Storage Tank #3	VOC	0.4	0.2	21
06	Westinghouse 501D5A Combustion Turbine and Duct Burner	PM PM_{10} SO_2 VOC CO NO_x Formaldehyde [1]	54.4 54.4 514.0 11.2 305.8 273.6 1.1	88.9 88.9 839.8 26.4 499.6 447.0 3.1	22
07	Cooling Tower	PM PM_{10}	0.5 0.5	2.0 2.0	26

** Source to be considered insignificant after the start-up of SN-06.
1. a HAP

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) remain 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

AECC requested federally enforceable permit limits to limit the NO_x emissions to 447.0 tpy for the proposed combustion turbine and HRSG duct burners (SN-06). This limit will avoid BACT for NO_x because it will not exceed the PSD significance level of 40 tpy NO_x. The actual two-year NO_x emission average for SN-01 during 1998 and 1999 was 407.9 tpy. A limit of 447.9 tpy or greater would trigger PSD for NO_x.

The new proposed source (SN-06) will be subject to PSD regulations for PM_{10}, SO_2, and CO.

Pollutant	PSD Increment (tpy)	98/99 Actual Average from SN-01 (tpy)	PSD Trigger Level (tpy)	Future Potential Emissions Permitted from New Sources (tpy)	PSD (yes or no)
PM/PM_{10}	25/15	4.85/4.85	29.85/19.85	90.9/90.9	Yes
SO_2	40	3.41	43.41	839.8	Yes
VOC	40	3.3	43.30	26.4	No
CO	100	0.70	100.7	499.6	Yes
NO_x	40	407.9	447.9	447.0	No

As a part of the PSD review for Fitzhugh, a Best Available Control Technology (BACT) analysis was required. A BACT determination is a case-by-case analysis that addresses the technological question of whether a proposed control technique can be considered BACT for the particular application or whether a more stringent level of emission control should be used. This determination involves an assessment of the availability of applicable technologies capable of sufficiently reducing a specific pollutant emission, as well as weighing the economic, energy, and environmental impacts using each technology.

The methodology used by the permittee to determine BACT followed the “top-down” approach. The “top-down” BACT contains the following elements:

C Determination of the most stringent control alternatives potentially available.

- Discussion of the technical and economic feasibility of each alternative.
- Assessment of energy and environmental impacts, including toxic and hazardous pollutant impacts, of feasible alternatives.
- Selection of the most stringent control alternative that is technically and economically feasible and that provides the best overall control of all pollutants.

The selected BACT must be at least as stringent as New Source Performance Standards for the source.

BACT Analysis: Particulate Matter from the Combustion Turbine

The most stringent particulate control method demonstrated for combustion turbines is the use of low ash fuels such as natural gas and No. 2 fuel oil. Good combustion practice and firing low ash fuels are considered BACT for this source.

BACT Analysis: SO_2 from the Combustion Turbine

Options for SO_2 emission control include (1) low sulfur fuels; (2) fuel oil limitations; and (3) good combustion practices. BACT for SO_2 will be (1) when burning natural gas in the combustion turbine and duct burners, burn only pipeline quality natural gas; (2) when burning fuel oil in the combustion turbine, burn only fuel oil limited to 0.33% sulfur by weight; and (3) good combustion practices.

BACT Analysis: CO from the Combustion Turbine

Natural Gas: The permittee proposed that BACT for the CO emissions from the combustion turbine when firing natural gas is good combustion practices with dry low NO_x combustors. Entries in the RBLC include the following: good combustion practices (21 entries) and CO catalyst (one entry). Catalytic oxidation to reduce the CO emissions from the combustion turbine was eliminated based on energy and economic impacts. Therefore, good combustion practices with dry low NO_x combustors qualifies as BACT for the CO emissions from the combustion turbine when firing natural gas.

BACT Analysis: Particulate Matter from the Cooling Tower

The technology available for particulate matter emission control for wet cooling towers is drift eliminators. Therefore, the BACT for the cooling tower is a drift eliminator.

BACT Summary

Arkansas Electric Cooperative Corporation-Thomas B. Fitzhugh Generating Station
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AFIN #: 24-00012

The following table is a summary of the BACT determinations for the facility. In the event of any disagreement between this table and subsequent permit conditions, the permit conditions shall take precedence.

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	

Ambient Air Analysis

An air dispersion modeling analysis is required as part of a PSD permit application. The air dispersion modeling analysis is used to demonstrate that emissions from the combustion turbine unit will not cause or contribute to a violation of any applicable National Ambient Air Quality Standard (NAAQS) or exceed a PSD Increment. The results of this analysis show that the

ambient concentrations are not above the air quality significance levels; therefore, a full impact analysis is not required.

Pollutant	Averaging Period	Total Facility Concentration (Fg/m^3)	Modeling Significance Level (Fg/m^3)	Refined Modeling (Yes/No)
PM_{10}	24-hour	0.659	5	No
	Annual	0.0481	1	No
SO_2	3-hour	21.43	25	No
	24-hour	4.97	5	No
	Annual	0.33	1	No
CO	1-hour	20.50	2000	No
	8-hour	7.48	500	No

Additional Impacts Analysis

PSD permits are required to assess the impacts of air, ground, and water pollution on soils, vegetation, and visibility caused by any increase in emissions of any regulated pollutant from the source or modification under review, and from associated growth.

Growth Analysis

The facility is being improved to add additional electrical generating capacity. AECC's loads have had an almost steady 3-5% increase in electrical demands. Therefore, the facility is not being upgraded to stimulate growth, it is being upgraded to meet electricity demand that is already occurring. The amount of employees at the plant shall remain the same after the addition of the proposed unit.

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Class I Area and Visibility Analysis

The Class I Area nearest to the facility is the Upper Buffalo Wilderness area in Arkansas. It is located approximately 60 kilometers northeast of the facility. Impacts associated with the operation of the proposed facility were modeled and the screening criteria for visual impacts inside a the Class I area were not exceeded.

Soils and Vegetation Analysis

Impacts associated with the operation of the proposed facility are below the applicable significant ambient impact levels for CO; therefore, no impact area exists that is associated with this project. Impacts to soils and vegetation resulting from operation of the proposed facility are expected to be negligible.

SECTION IV: EMISSION UNIT INFORMATION

SN-01
Primary Boiler

Source Description

A Babcock and Wilcox boiler (SN-01) burns primarily natural gas. This boiler was installed in 1963. The boiler has two (2) operating scenarios:

Scenario 1: natural gas firing;
Scenario 2: fuel oil firing.

This boiler will be shut down and retired once the new turbine (SN-06) is installed and operating. Once SN-01 is retired, Specific Conditions #1 through #26 will no longer be applicable to this facility.

Specific Conditions

SCENARIO 1: NATURAL GAS FIRING SPECIFIC CONDITIONS

5. Pursuant to §19.501 et. seq. of the Regulations of the Arkansas State Implementation Plan for Air Pollution Control (Regulation 19) effective February 15, 1999 and 40 CFR Part 52, Subpart E, the permittee shall not exceed at SN-01 the emission rates set forth in the following table. Compliance shall be demonstrated by maintaining the CEMS and recordkeeping requirements contained in this permit.

Pollutant	lb/hr
PM_{10}	3.4
SO_2	0.4
VOC	1.2
CO	27.2
NO_X	975

6. Pursuant to §18.801 of the Arkansas Air Pollution Control Code (Regulation 18) effective February 15, 1999 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall not exceed the emission rates set forth in the following table. Compliance shall be demonstrated by maintaining the CEMS and recordkeeping requirements contained in this permit.

Pollutant	lb/hr
PM	3.4

SCENARIO 2: FUEL OIL FIRING SPECIFIC CONDITIONS

7. Pursuant to §19.501 et. seq. of Regulation 19 and 40 CFR Part 52, Subpart E, the permittee shall not exceed at SN-01 the emission rates set forth in the following table. Compliance shall be demonstrated by maintaining the CEMS and recordkeeping requirements contained in this permit.

Pollutant	lb/hr
PM_{10}	110.6
SO_2	1636.0
VOC	4.7
CO	22.7
NO_X	545.0

8. Pursuant to §18.801 of Regulation 18 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall not exceed the emission rates set forth in the following table. Compliance shall be demonstrated by maintaining the CEMS and recordkeeping requirements contained in this permit.

Pollutant	lb/hr
PM	3.4

9. Pursuant to §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, the permittee shall not use fuel oil with a sulfur content greater than 2.3% at this source. Compliance shall be demonstrated through compliance with Specific Condition #7.

10. Pursuant to §19.702 of Regulation 19 and 40 CFR Part 52, Subpart E, the permittee shall sample and analyze each shipment of fuel oil to determine the sulfur content. Fuel oil sampling and analysis may be performed by the owner or operator of an affected unit, an outside laboratory, or a fuel supplier, provided that sampling is performed according to ASTM D4057-88.

11. Pursuant to §19.705 of Regulation 19 and 40 CFR Part 52, Subpart E, the permittee shall maintain records which demonstrate compliance with the limit set in Specific Condition #5 and 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. A consecutive twelve month total and each individual month's data shall be submitted in accordance with General Provision 7.

OTHER SPECIFIC CONDITIONS

Specific Conditions #8 through #26 apply to the boiler (SN-01) during all operating scenarios.

12. Pursuant to §19.501 et. seq. of Regulation 19 and 40 CFR Part 52, Subpart E, the permittee shall not exceed the annual emission rates set forth in the following table. Compliance shall be demonstrated by maintaining the CEMS and record keeping requirements contained in this permit.

Pollutant	Emission Rate (tpy)
PM_{10}	158.0
SO_2	2,000.0
VOC	13.0
CO	77.0
NO_X	2,776.0

13. Pursuant to §18.801 of Regulation 18 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall not exceed the emission rates set forth in the following table. Compliance shall be demonstrated by maintaining the CEMS and record keeping requirements contained in this permit.

Pollutant	tpy
PM	158.0

14. Pursuant to §19.501 et. seq. of Regulation 19 and 40 CFR Part 52, Subpart E, the permittee shall not exceed 2,000 tpy of SO_2 emissions for any consecutive twelve month period. Compliance shall be demonstrated through compliance with Specific Condition #12.

15. Pursuant to §19.703 of Regulation 19, 40 CFR Part 52, Subpart E and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and A.C.A. §8-4-311, the permittee shall continue to maintain and operate a continuous emission system (CEMS) capable of measuring the SO_2 emission emitted from SN-01, the main boiler. Compliance with the hourly SO_2 emission limit set in Specific Condition 1 when burning natural gas shall be determined as the average emissions (arithmetic average of three contiguous one hour periods) of SO_2 as calculated by a CEMS as allowed by 40 CFR Part 75, Appendix D (using 0.0006 lb of SO_2 per million Btu heat input) converted to pounds per hour. Compliance with the hourly SO_2 emission limit set in Specific Condition 3 when burning fuel oil shall be determined as the average emissions (arithmetic average of three contiguous one hour periods) of SO_2 as measured by a CEMS and converted to pounds per hour using corresponding average (arithmetic average of three contiguous one hour periods) stack gas flow rates. A copy of the Department standards for CEMS is included as Attachment B. These records shall be kept on site and shall be provided to Department personnel upon request. Records shall be submitted in accordance with General Provision 7.

16. Pursuant to §18.1004 Regulation 18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and A.C.A. §8-4-311, the permittee shall maintain records which demonstrate compliance with the limit set in Specific Condition #10 and 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. A consecutive twelve month total and each individual month's data shall be submitted in accordance with General Provision 7.

17. Pursuant to §19.501 et. seq. of Regulation 19 and 40 CFR Part 70.6 the permittee shall not exceed 2,776 tpy NO_x emissions for any consecutive twelve month period. Compliance shall be demonstrated through compliance with Specific Condition #15.

18. Pursuant to §19.703 of Regulation 19, 40 CFR Part 52, Subpart E and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and A.C.A. §8-4-311, the permittee shall continue to maintain and operate a continuous emission system (CEMS) capable of measuring the NO_X emission emitted from SN-01, the main boiler. Compliance with the hourly NO_X emission limit set in Specific Conditions #1 and #3 shall be determined as the average emissions (arithmetic average of three contiguous one hour periods) of NO_X as measured by a CEMS and converted to pounds per hour using corresponding average (arithmetic average of three contiguous one hour periods) stack gas flow rates. A copy of the Department standards for CEMS is included as Attachment B. These records shall be kept on site and shall be provided to Department personnel upon request. Records shall be submitted in accordance with General Provision 7.

19. Pursuant to §19.705 of Regulation 19 and 40 CFR Part 52 Subpart E, the permittee shall maintain records which demonstrate compliance with the limit set in Specific Condition 13 and 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. A consecutive twelve month total and each individual month's data shall be submitted in accordance with General Provision 7.

20. Pursuant to §19.501 et. seq. of Regulation 19 and 40 CFR Part 52, Subpart E, the permittee shall not exceed 77 tpy CO emissions for any consecutive twelve month period. Compliance shall be demonstrated through compliance with Specific Condition #18.

21. Pursuant to §19.703 of Regulation 19, 40 CFR Part 52, Subpart E and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and A.C.A. §8-4-311, the permittee shall continue to maintain and operate a continuous emission system (CEMS) capable of measuring the CO emission emitted from SN-01, the main boiler. Compliance with the hourly CO emission limit set in Specific Conditions 1 and 3 shall be determined as the average emissions (arithmetic average of three contiguous one hour periods) of CO as measured by a CEMS and converted to pounds per hour using corresponding average (arithmetic average of three contiguous one hour periods) stack gas flow rates. A copy of the Department standards for CEMS is included as Attachment B. These records shall be kept on site and shall be provided to Department personnel upon request. Records shall be submitted in accordance with General Provision 7.

22. Pursuant to §19.501 et. seq. of Regulation 19 and 40 CFR Part 52, Subpart E, the permittee shall maintain records which demonstrate compliance with the limit set in Specific Condition 16 and 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. A consecutive twelve month total and each individual month's data shall be submitted in accordance with General Provision 7.

23. Pursuant to 40 CFR Part 75.10(a)(1) and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall install, certify, operate, and maintain, in accordance with all provisions of 40 CFR Part 75, a SO_2 continuous emission monitoring system and a flow monitoring system with a automated data acquisition and handling system for measuring and recording SO_2 concentration (in ppm), volumetric gas flow (in scfh), and SO_2 mass emissions (in lb/hr) discharged to the atmosphere, except as provided in 40 CFR Part 75.11, 40 CFR Part 75.16, and 40 CFR Part 75, Subpart E.

24. Pursuant to 40 CFR Part 75.10(a)(2) and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall install, certify, operate, and maintain, in accordance with all provisions of 40 CFR Part 75, a NO_x continuous emission monitoring system (consisting of a NO_x pollutant concentration monitor and an O_2 or CO_2 diluent gas monitor) with the automated data acquisition and handling system for measuring and recording NO_x concentration (in ppm), O_2 or CO_2 concentration (in percent O_2 or CO_2) and NO_X emission rate (in lb/MMBtu) discharged to the atmosphere, except as provided in 40 CFR Part 75.12, 40 CFR Part 75.17, and 40 CFR Part 75, Subpart E. The owner and operator shall account for total NO_x emissions, both NO and NO_2, either by monitoring for both NO and NO_2 or by monitoring for NO only and adjusting the emission data to account for NO_2.

25. Pursuant to 40 CFR Part 75.10(a)(3) and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall determine CO_2 emissions by using one of the following options, except as provided in 40 CFR 75.13 and 40 CFR Part 75, Subpart E.

    (i) The permittee shall install, certify, operate, and maintain, in accordance with all provisions of 40 CFR Part 75, a CO_2 continuous emission monitoring system and a flow monitoring system with the automated data acquisition and handling system for measuring and recording CO_2 concentration (in ppm or percent), volumetric gas flow (in scfh), and CO_2 mass emissions (in tons/hr) discharged to the atmosphere;

    (ii) The permittee shall determine CO_2 emissions based on the measured carbon content of the fuel and the procedures in appendix G of 40 CFR Part 75 to estimate CO_2 emissions (in ton/day) discharged to the atmosphere;

    (iii) The permittee shall install, certify, operate, and maintain, in accordance with all provisions of 40 CFR Part 75, a flow monitoring system and a CO_2 continuous emission monitoring system using an O_2 concentration monitor in order to determine CO_2 emissions using the procedures in appendix F of 40 CFR Part 75 with the automated data acquisition and handling system for measuring and recording O_2 concentration (in percent), CO_2 concentration (in percent), volumetric gas flow (in scfh), and CO_2 mass emissions (in tons/hr) discharged to the atmosphere.

26. Pursuant to 40 CFR Part 75.10(a)(4) and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall install, certify, operate, and maintain, in accordance with all provisions of 40 CFR Part 75, a continuous opacity monitoring system with automated data acquisition and handling system for measuring and recording the opacity of emissions (in percent opacity) discharged to the atmosphere, except as provided in 40 CFR 75.14 and 40 CFR 75.18. A copy of the Department standards for CEMS is included as Attachment B.

27. Pursuant to 40 CFR Part 75.10(b) and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall ensure that each continuous emission monitoring system required by 40 CFR Part 75 meets the equipment, installation, and performance specifications in Appendix A and is maintained according to the quality assurance and quality control procedures in Appendix B and shall record SO_2 and NO_x emissions in the appropriate units of measurement (i.e., lb/hr for SO_2 and lb/MMBtu for NO_x).

28. Pursuant to 40 CFR, Part 75.10(c) and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, 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.

29. Pursuant to 40 CFR Part 75 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311**, the permittee shall comply with all applicable regulations not identified in Specific Conditions #20 through #24. (See attachment A)**

30. Pursuant to §19.503 of Regulation 19 and 40 CFR Part 52, Subpart E, the visible emissions from this source shall not exceed 20% opacity. Compliance shall be demonstrated through compliance with Specific Condition #22.

SN-02
Auxiliary Boiler

Source Description

The auxiliary Cleaver Brooks boiler (SN-02) burns only natural gas. This boiler was installed in 1963 and has a heat input of 8.4 MMBtu/hr. SN-02 will be considered insignificant upon the retiring of SN-01. Once SN-02 becomes insignificant, Specific Conditions #27 through #29 are no longer applicable to this facility.

Specific Conditions

31. Pursuant to §19.501et. seq. of Regulation 19 and 40 CFR Part 52, Subpart E, the permittee shall not exceed the emission rates set forth in the following table. Compliance shall be demonstrated by burning only natural gas as fuel.

Pollutant	lb/hr	tpy
PM_{10}	0.1	0.3
SO_2	0.1	0.1
VOC	0.1	0.5
CO	0.2	3.3
NO_X	0.9	3.9

32. Pursuant to §18.801 of Regulation 18 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall not exceed the emission rates set forth in the following table. Compliance shall be demonstrated by burning only natural gas as fuel.

Pollutant	lb/hr	tpy
PM_{10}	0.1	0.3

33. Pursuant to §18.501 of Regulation 18 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the opacity shall not exceed 10% from the auxiliary boiler (SN-02). The permittee will show compliance by burning only natural gas as fuel at this source.

SN-03, 04, and 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 413,913 gallons, 824,962 gallons, and 1,036,702 gallons, respectively. These tanks were installed prior to the effective date of the NSPS.

Specific Conditions

34. Pursuant to §19.501 et. seq. of Regulation 19 and 40 CFR Part 52, Subpart E, the permittee shall not exceed the emission rates set forth in the following table. Compliance with this condition will be demonstrated through compliance with Specific Condition #31.

SN-#	Pollutant	lb/hr	tpy
03	VOC	0.4	0.5
04	VOC	0.4	
05	VOC	0.4	

35. Pursuant to §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, the permittee shall not exceed a combined throughput of 35.14 million gallons of fuel oil at these sources. Compliance shall be demonstrated through compliance with Specific Condition #32.

36. Pursuant to §19.705 of Regulation 19 and 40 CFR Part 52, Subpart E, 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. These 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 General Provision #7.

SN-06
Westinghouse 501D5A Combustion Turbine and 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 turbine. This unit will utilize a duct burner in the HRSG.

The duct burner has a heat input of 220 MMBtu/hr.

Specific Conditions

37. Pursuant to §19.501et. seq. of Regulation 19 and 40 CFR Part 52, Subpart E, the permittee shall not exceed the emission rates set forth in the following table. Compliance with this condition will be demonstrated through compliance with Specific Conditions #35 and #38.

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

38. Pursuant to §18.801of Regulation 18, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall not exceed the emission rates set forth in the following table. Compliance with this condition will be demonstrated through compliance with Specific Condition #35.

Pollutant	lb/hr	tpy
PM	54.4	88.9
Formaldehyde	1.1	3.1

39. Pursuant to §19.901 of Regulation 19 et seq, and 40 CFR Part 52, Subpart E, the permittee shall comply with the following BACT determinations for the combustion turbine / heat recovery system generator. Initial compliance with the emission limits set forth in the following table shall be demonstrated by the initial performance test of the generator.

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
	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

40. Pursuant to §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, 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 #37. Compliance shall be demonstrated through compliance with Specific Condition #38.

41. Pursuant to §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, 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 #36.

$$y = -0.2535x + 9.626$$

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 #36 be exceeded.

42. Pursuant to §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, 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.

43. Pursuant to §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, the permittee shall maintain a CEM which monitors the CO emissions from this source. These CEMS shall be operated in accordance with all applicable conditions of the Department's Continuous Emission Monitoring Systems Conditions as found in Appendix B of this permit.

44. Pursuant to §19.304 of Regulation 19 and 40 CFR Part 60 Subpart Db, *Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units*, 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. Pursuant to 40 CFR §60.44b(a)(4)(i), NO_x emissions shall not exceed 0.2 lb/MMBtu heat input.

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

c. Pursuant to 40 CFR §60.46b(f), 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 and at the outlet from the turbine from the nitrogen oxides emission rate measured at the sampling site at the outlet from the steam generating unit.

d. Pursuant to 40 CFR §60.49b(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 calender 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 calender month.

e. Pursuant to 40 CFR §60.49b(o), 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.

41. Pursuant to §19.503 of Regulation 19 and 40 CFR Part 52, Subpart E, the visible emissions from this source shall not exceed 20% opacity. Compliance shall be demonstrated through compliance with Specific Condition #42.

42. Pursuant to §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, the permittee shall conduct daily observations of the opacity from this source and keep a record of these observations. 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.

43. Pursuant to §19.304 of Regulation 19, and 40 CFR Part 60, Subpart GG, the Combustion Turbine/HRSG system (SN-06) is subject. The permittee 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. Pursuant to 40 CFR §60.332(a)(1), 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.

b. Pursuant to 40 CFR §60.333(b), no fuel shall be fired at SN-06 that contains sulfur in excess of 0.8 percent by weight.

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

d. Pursuant to 40 CFR §60.334(c)(1), 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.

e. Pursuant to 40 CFR §60.334(c)(2), 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.

f. Pursuant to 40 CFR §60.335 and §60.8, 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.

g. The monitoring and testing requirements of Specific Condition #43(c), #43(d) and #43(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 #43(d) shall be based on the 40 CFR Part 75 CEMS data.

44. Pursuant to §19.702 and §19.901 of Regulation 19, and 40 CFR Part 52, Subpart E, the permittee shall perform an initial stack test on each Combustion Turbine/HRSG with Duct Burner stack for VOC to demonstrate compliance with the limits specified in Specific Condition #33. Testing shall be performed every five years in accordance with Plantwide Condition #3 and EPA Reference Method 25A as found in 40 CFR Part 60, Appendix A. Testing shall be performed at or near maximum operating load.

45. Pursuant to §19.702 and §19.901 of Regulation 19, and 40 CFR Part 52, Subpart E, 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 #33. Testing shall be performed every five years in accordance with Plantwide Condition #3 and EPA Reference Method 10 as found in 40 CFR Part 60, Appendix A. Testing shall be performed at or near maximum operating load.

46. Pursuant to §19.702 and §19.901 of Regulation 19, and 40 CFR Part 52, Subpart E, 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 #33. Testing shall be performed every five years in accordance with Plantwide Condition #3 and EPA Reference Method 7E as found in 40 CFR Part 60, Appendix A. Testing shall be performed at or near maximum operating load.

47. Pursuant to §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, 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 NO_x 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 NO_x and O_2 in the flue gas along with the measured fuel flow (or another 40 CFR Part 75 procedure) to calculate NO_x mass emissions. The CEMS shall be used to demonstrate compliance with the NO_x mass emission limits in Specific Condition #33.

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

    c. The permittee shall maintain records which demonstrate compliance with Specific Condition #47 (a) and (b).

48. Pursuant to §19.901 of Regulation 19 et seq, 40 CFR Part 52, Subpart E, §19.304 of Regulation 19, and 40 CFR Part 75, CEMS shall be used to demonstrate compliance with the emission limits in Specific Condition #33 and NO_x limits listed in Specific Condition #35.

49. Pursuant to §18.1002 of Regulation 18, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, 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 #34. Testing shall be performed one time in accordance with Plantwide Condition #3 and EPA Reference Method 18 as found in 40 CFR Part 60, Appendix A. Testing shall be performed at or near maximum operating load.

50. Pursuant to §19.601 of Regulation 19 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, 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.

SN-07
Cooling Tower

Source Description

This tower is being installed to reduce the temperature of the effluent before it is discharged to the Arkansas river.

Specific Conditions

45. Pursuant to §19.501 et. seq. of Regulation 19 and 40 CFR Part 52, Subpart E, the permittee shall not exceed the emission rates set forth in the following table. Compliance with this condition shall be demonstrated through compliance with Specific Condition #53.

Pollutant	lb/hr	tpy
PM_{10}	0.5	2.0

46. Pursuant to §18.801of Regulation 18, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall not exceed the emission rates set forth in the following table. Compliance with this condition shall be demonstrated through compliance with Specific Condition #53.

Pollutant	lb/hr	tpy
PM	0.5	2.0

47. Pursuant to §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, the permittee shall operate the cooling tower with a drift eliminator according to the manufacturer's specifications.

SECTION V: COMPLIANCE PLAN AND SCHEDULE

Arkansas Electric Cooperative Corporation-Thomas B. Fitzhugh Generating Station is in compliance with the applicable regulations cited in the permit application. 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. Pursuant to §19.704 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, the Director shall be notified in writing within thirty (30) days after construction has commenced, construction is complete, the equipment and/or facility is first placed in operation, and the equipment and/or facility first reaches the target production rate.

2. Pursuant to §19.410(B) of Regulation 19, 40 CFR Part 52, Subpart E, the Director may cancel all or part of this permit if the construction or modification authorized herein is not begun within 18 months from the date of the permit issuance or if the work involved in the construction or modification is suspended for a total of 18 months or more.

3. Pursuant to §19.702 of Regulation 19 and/or §18.1002 of Regulation 18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311, any equipment that is to be tested, unless stated in the Specific Conditions of this permit or by any federally regulated requirements, shall be tested with the following time frames: (1) Equipment to be constructed or modified shall be tested within sixty (60) days of achieving the maximum production rate, but in no event later than 180 days after initial start-up of the permitted source or (2) equipment already operating shall be tested according to the time frames set forth by the Department or within 180 days of permit issuance if no date is specified. The permittee shall notify the Department of the scheduled date of compliance testing at least fifteen (15) days in advance of such test. Compliance test results shall be submitted to the Department within thirty (30) days after the completed testing.

4. Pursuant to §19.702 of Regulation 19 and/or §18.1002 of Regulation 18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311, the permittee shall provide:

   a. Sampling ports adequate for applicable test methods
   b. Safe sampling platforms
   c. Safe access to sampling platforms
   d. Utilities for sampling and testing equipment

5. Pursuant to §19.303 of Regulation 19 and A.C.A. §8-4-203 as referenced by A.C. A. §8-4-304 and §8-4-311, the equipment, control apparatus and emission monitoring equipment shall be operated within their design limitations and maintained in good condition at all times.

6. Pursuant to §19.901 et seq of Regulation 19 and 40 CFR Part 52, Subpart E, the permittee shall remove the Primary Boiler (SN-01) from service no later than March 1, 2003.

7. Pursuant to Regulation 26 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, this permit subsumes and incorporates all previously issued air permits for this facility.

Acid Rain (Title IV)

8. Pursuant to §26.701 of Regulation #26 and 40 CFR 70.6(a)(4), the permittee is prohibited from causing any emissions which exceed any allowances that the source lawfully holds under Title IV of the Act or the regulations promulgated thereunder. No permit revision is required for increases in emissions that are authorized by allowances acquired pursuant to the acid rain program, provided that 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. The source may not, however, use allowances as a defense to noncompliance with any other applicable requirement of this permit or the Act. Any such allowance shall be accounted for according to the procedures established in regulations promulgated under Title IV of the Act.

Title VI Provisions

9. The permittee shall comply with the standards for labeling of products using ozone depleting substances pursuant to 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.

10. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F, except as provided for MVACs in Subpart B:

    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 CFR part 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 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.

13. The permittee shall be allowed to switch from any ozone-depleting substance to any alternative that is listed in the Significant New Alternatives Program (SNAP) promulgated pursuant to 40 CFR part 82, Subpart G, Significant New Alternatives Policy Program.

SECTION VII: INSIGNIFICANT ACTIVITIES

Pursuant to §26.304 of Regulation 26, the following sources are insignificant activities. Any activity for which a state or federal applicable requirement applies is not insignificant even if this activity meets the criteria of §304 of Regulation 26 or is listed below. Insignificant activity determinations rely upon the information submitted by the permittee in an application dated February 13, 2001.

Description	Category
Auxiliary boiler SN-02 (Only after SN-06 is operational)	Group B, #2
Emergency Generator	Group A, #12
diesel fuel tank for emergency generator (300 gallon)	Group A, # 3

Pursuant to §26.304 of Regulation 26, the emission units, operations, or activities contained in Regulation 19, Appendix A, Group B, have been determined by the Department to be insignificant activities. Activities included in this list are allowable under this permit and need not be specifically identified.

SECTION VIII: GENERAL PROVISIONS

1. Pursuant to 40 CFR 70.6(b)(2), 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.

2. Pursuant to 40 CFR 70.6(a)(2) and §26.701(B) of the Regulations of the Arkansas Operating Air Permit Program (Regulation 26), effective August 10, 2000, 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.

3. Pursuant to §26.406 of Regulation #26, it is the duty of the permittee to submit a complete application for permit renewal at least six (6) months prior to the date of permit expiration. Permit expiration terminates the permittee's right to operate unless a complete renewal application was submitted at least six (6) months prior to permit expiration, in which case the existing permit shall 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.

4. Pursuant to 40 CFR 70.6(a)(1)(ii) and §26.701(A)(2) of Regulation #26, 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, both provisions are incorporated into the permit and shall be enforceable by the Director or Administrator.

5. Pursuant to 40 CFR 70.6(a)(3)(ii)(A) and §26.701(C)(2) of Regulation #26, records of monitoring information required by this permit shall include the following:

1. The date, place as defined in this permit, and time of sampling or measurements;
2. The date(s) analyses were performed;
3. The company or entity that performed the analyses;
4. The analytical techniques or methods used;
5. The results of such analyses; and
6. The operating conditions existing at the time of sampling or measurement.

6. Pursuant to 40 CFR 70.6(a)(3)(ii)(B) and §26.701(C)(2)(b) of Regulation #26, records of all required monitoring data and support information shall be retained for a period of at least 5 years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit.

7. Pursuant to 40 CFR 70.6(a)(3)(iii)(A) and §26.701(C)(3)(a) of Regulation #26, the permittee shall submit reports of all required monitoring every 6 months. If no other reporting period has been established, the reporting period shall end on the last day of the anniversary month of this permit. The report shall be due within 30 days of the end of the reporting period. Even though the reports are due every six months, each report shall contain a full year of data. All instances of deviations from permit requirements must be clearly identified in such reports. All required reports must be certified by a responsible official as defined in §26.2 of Regulation #26 and must be sent to the address below.

Arkansas Department of Environmental Quality
Air Division
ATTN: Compliance Inspector Supervisor
Post Office Box 8913
Little Rock, AR 72219

8. Pursuant to 40 CFR 70.6(a)(3)(iii)(B), §26.701(C)(3)(b) of Regulation #26, and §19.601 and 19.602 of Regulation #19, all deviations from permit requirements, including those attributable to upset conditions as defined in the permit shall be reported to the Department. An initial report shall be made 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:

1. The facility name and location,

2. The process unit or emission source which is deviating from the permit limit,
3. The permit limit, including the identification of pollutants, from which deviation occurs,
4. The date and time the deviation started,
5. The duration of the deviation,
6. The average emissions during the deviation,
7. The probable cause of such deviations,
8. Any corrective actions or preventive measures taken or being taken to prevent such deviations in the future, and
9. The name of the person submitting the report.

A full report shall be made in writing to the Department within five (5) business days of discovery of the occurrence and shall include in addition to the information required by initial report a schedule of actions to be taken to eliminate future occurrences and/or to minimize the amount by which the permits limits are exceeded and to reduce the length of time for which said limits are exceeded. If the permittee wishes, they 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 such report will serve as both the initial report and full report.

9. Pursuant to 40 CFR 70.6(a)(5) and §26.701(E) of Regulation #26, and A.C.A.§8-4-203, as referenced by §8-4-304 and §8-4-311, if any provision of the permit or the application thereof to any person or circumstance is held invalid, such invalidity shall 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.

10. Pursuant to 40 CFR 70.6(a)(6)(i) and §26.701(F)(1) of Regulation #26, 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, or modification; or for denial of a permit renewal application. Any permit noncompliance with a state requirement constitutes a violation of the Arkansas Water and Air Pollution Control Act (A.C.A. §8-4-101 *et seq*.) and is also grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

11. Pursuant to 40 CFR 70.6(a)(6)(ii) and §26.701(F)(2) of Regulation #26, 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 in order to maintain compliance with the conditions of this permit.

12. Pursuant to 40 CFR 70.6(a)(6)(iii) and §26.701(F)(3) of Regulation #26, this permit may be modified, revoked, reopened, and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.

13. Pursuant to 40 CFR 70.6(a)(6)(iv) and §26.701(F)(4) of Regulation #26, this permit does not convey any property rights of any sort, or any exclusive privilege.

14. Pursuant to 40 CFR 70.6(a)(6)(v) and §26.701(F)(5) of Regulation #26, the permittee shall 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 shall also furnish to the Director copies of records required to be kept by the permit. For information claimed to be confidential, the permittee may be required to furnish such records directly to the Administrator along with a claim of confidentiality.

15. Pursuant to 40 CFR 70.6(a)(7) and §26.701(G) of Regulation #26, the permittee shall pay all permit fees in accordance with the procedures established in Regulation #9.

16. Pursuant to 40 CFR 70.6(a)(8) and §26.701(H) of Regulation #26, no permit revision shall be required, under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for elsewhere in this permit.

17. Pursuant to 40 CFR 70.6(a)(9)(i) and §26.701(I)(1) of Regulation #26, if the permittee is allowed to operate under 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 scenario under which the facility or source is operating.

18. Pursuant to 40 CFR 70.6(b) and §26.702(A) and (B) of Regulation #26, all terms and conditions in this permit, including any provisions designed to limit a source's potential to emit, are enforceable by the Administrator and citizens under the Act

unless the Department has specifically designated as not being federally enforceable under the Act any terms and conditions included in the permit that are not required under the Act or under any of its applicable requirements.

19. Pursuant to 40 CFR 70.6(c)(1) and §26.703(A) of Regulation #26, any document (including reports) required by this permit shall contain a certification by a responsible official as defined in §26.2 of Regulation #26.

20. Pursuant to 40 CFR 70.6(c)(2) and §26.703(B) of Regulation #26, the permittee shall allow an authorized representative of the Department, upon presentation of credentials, to perform the following:

    1. 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;
    2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
    3. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit; and
    4. As authorized by the Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with this permit or applicable requirements.

21. Pursuant to 40 CFR 70.6(c)(5) and §26.703(E)(3) of Regulation #26, the permittee shall submit a compliance certification with terms and conditions contained in the permit, including emission limitations, standards, or work practices. This compliance certification shall be submitted annually and shall be submitted to the Administrator as well as to the Department. All compliance certifications required by this permit shall include the following:

    1. The identification of each term or condition of the permit that is the basis of the certification;
    2. The compliance status;
    3. Whether compliance was continuous or intermittent;
    4. 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
    5. Such other facts as the Department may require elsewhere in this permit or by §114(a)(3) and 504(b) of the Act.

22. Pursuant to §26.704(C) of Regulation #26, nothing in this permit shall alter or affect the following:

1. The provisions of Section 303 of the Act (emergency orders), including the authority of the Administrator under that section;
2. The liability of the permittee for any violation of applicable requirements prior to or at the time of permit issuance;
3. The applicable requirements of the acid rain program, consistent with §408(a) of the Act; or
4. The ability of EPA to obtain information from a source pursuant to §114 of the Act.

23. Pursuant to A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, this permit authorizes only those pollutant emitting activities addressed herein.

APPENDIX A

APPENDIX B

APPENDIX C

APPENDIX D

INVOICE REQUEST FORM

PDS-

Date August 29, 2003

X	Air
	NPDES
	Stormwater
	State Permits Branch
	Solid Waste

CSN 24-0012

Facility Name Arkansas Electric Cooperative Corporation-Thomas B. Fitzhugh Generating Station

Invoice Mailing Address P.O. Box 194208

Little Rock, Arkansas 72219-4208

	Initial
X	Modification
	Annual

Permit Number 1165-AOP-R1
Permit Description Title 5
Permit Fee Code A

Amount Due $ 1000

Engineer Wesley Crouch

Paid? ☐No ☐Yes Check #

Comments: Air Permit Fee Calculation
Net emissions increase is less than 0 therefore fee = $1000

Public Notice

Pursuant to the Arkansas Operating Air Permit Program (Regulation #26) Section 602, the Air Division of the Arkansas Department of Environmental Quality gives the following notice:

Arkansas Electric Cooperative Corporation Corporation (AECC) will construct and operate a Westinghouse 501D5A combustion turbine at the existing Thomas B. Fitzhugh Generating Station (Fitzhugh)(CSN:24-0012) located on Jetta Taylor Lock and Dam Road in Ozark, Arkansas 72949. This unit will be used primarily for intermediate and peak load conditions. This new combustion turbine and associated heat recovery steam generator (SN-06) will replace the existing boiler (SN-01). The existing boiler will be retired once the new unit is in operation.

The application has been reviewed by the staff of the Department and has received the Department's tentative approval subject to the terms of this notice.

Citizens wishing to examine the permit application and staff findings and recommendations may do so by contacting Doug Szenher, Information Officer. Citizens desiring technical information concerning the application or permit should contact Wesley Crouch, Engineer. Both Doug Szenher and Wesley Crouch can be reached at the Department's central office, 8001 National Drive, Little Rock, Arkansas 72209, telephone: (501) 682-0744.

The draft permit and permit application are available for copying at the above address. A copy of the draft permit has also been placed at the Pope County Library located at 114 East Third St. in Russellville, Arkansas 72801. This information may be reviewed during normal business hours.

Interested or affected persons may also submit written comments or request a hearing on the proposal, or the proposed modification, to the Department at the above address - Attention: Doug Szenher. In order to be considered, the comments must be submitted within thirty (30) days of publication of this notice. Although the Department is not proposing to conduct a public hearing, one will be scheduled if significant comments on the permit provisions are received. If a hearing is scheduled, adequate public notice will be given in the newspaper of largest circulation in the county in which the facility in question is, or will be, located.

The Director shall make a final decision to issue or deny this application or to impose special conditions in accordance with Section 2.1 of the Arkansas Pollution Control and Ecology Commission's Administrative Procedures (Regulation #8) and Regulation #26.

Dated this

Richard A. Weiss

Interim Director