RESPONSE TO COMMENTS

Entergy Arkansas, Inc. – White Bluff
DRAFT PERMIT #0263-AOP-R6
AFIN: 35-00110

On November 28, 2008, the Director of the Arkansas Department of Environmental Quality (ADEQ) gave notice of a draft permitting decision for the above referenced facility. During the comment period ADEQ and Entergy, submitted comments, data, views or arguments on the draft permitting decision. The Department's response to these issues follows.

Issue #1:

The facility had previously submitted an application to incorporate the facility's CAIR permit application. However, On July 11, 2008, the Clean Air Interstate Rule (CAIR) was vacated and never added to the permit.

Response #1:

Currently, CAIR is still applicable based on Arkansas regulations. Therefore, the CAIR permit application has been attached with this Title V permit.

Issue #2:

Entergy noted that portions of Specific Conditions #41, #42, and #62 were accidentally removed during this permit modification and requested the information to be added back to the permit before going final.

Response #2:

The permit has been updated as requested.

ADEQ
OPERATING
AIR PERMIT

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

Permit No. : 0263-AOP-R6
Renewal # 1
IS ISSUED TO:

Entergy Services, Inc. - White Bluff Plant
1100 White Bluff Road
Redfield, AR 72132
Jefferson County
AFIN: 35-00110

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:

April 28, 2005 AND April 27, 2010

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

Signed:

Mike Bates
Chief, Air Division

January 12, 2009
Date Modified

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:	Entergy Services, Inc. - White Bluff Plant
AFIN:	35-00110
PERMIT NUMBER:	0263-AOP-R6
FACILITY ADDRESS:	1100 White Bluff Road Redfield, AR 72132
MAILING ADDRESS:	1100 White Bluff Road Redfield, AR 72132
COUNTY:	Jefferson County
CONTACT NAME:	Tracy Johnson
CONTACT POSITION:	Environmental Analyst
TELEPHONE NUMBER:	501-377-4033
REVIEWING ENGINEER:	Joseph Hurt
UTM North South (Y):	Zone 15: 3809023.52 m
UTM East West (X):	Zone 15: 577562.11 m

SECTION II: INTRODUCTION

Summary of Permit Activity

Entergy Arkansas, Inc. - White Bluff located in Redfield, Arkansas is a two-unit electric generating station which generates electric energy for sale. With this modification, Entergy would like to install a new dust suppression system at the bottom of 2A conveyor (SN-06A), and revise the fuel oil N_2O emissions based on updated emission factors. The N_2O annual emissions for the fuel oil fired scenario increases by 10.48 tpy. The facility total annual permitted emission rate increases include 0.88 tpy N_2O.

Process Description

White Bluff Steam Electric Station operates currently as a base-load facility. The plant has two identical coal-fired units (Units 1 and 2) with a total capacity of approximately 1690 megawatts (MW). Sub-bituminous or bituminous coal is delivered by rail or barge. Each rail car is equipped with rotary couplings which enable the rotary car dumper (SN-03) to grasp one car at a time and empty it without removing the car from the train. The rotary car dumper is capable of emptying approximately 30 cars per hour. Transfer conveyors move the coal to a transfer tower. From here the coal can be conveyed to three different areas including the plant to be pulverized and burned, the stacker/reclaimer, or the storage area. The stacker reclaimer has the capability of either stacking coal out or reclaiming the coal from the storage area. The storage area is used for long term storage of coal and is also managed by the use of heavy vehicles including front end loaders and bull dozers.

Coal is burned in the steam generators (SN-01 and SN-02) which feed turbine generators to produce electricity. Exhaust gases from both units are expelled through two 1000 foot stacks within a common outer chimney shell. Waste heat dissipation is through two hyperbolic natural draft cooling towers (SN-17 and SN-18) which obtain makeup water from the Arkansas River and from the capture of site drainage. Other major plant components include facilities for storage and handling of coal and disposal of ash; a switch-yard; electrostatic precipitators; water treatment; surge and other ponds; and intake and discharge structures.

Regulations

The following table contains the regulations applicable to this permit.

Regulations
Arkansas Air Pollution Control Code, Regulation 18, effective February 15, 1999
Regulations of the Arkansas Plan of Implementation for Air Pollution Control, Regulation 19, effective October 15, 2007
Regulations of the Arkansas Operating Air Permit Program, Regulation 26, effective September 26, 2002

Regulations
40 CFR Part 60, Subpart D - *Standards of Performance for Fossil-Fuel-Fired Steam Generators for Which Construction is Commenced After August 17, 1971*
40 CFR Part 61, Subpart M – *National Emissions Standard for Asbestos*
40 CFR Part 72, Subpart A-D – Permits Regulation (Acid Rain)
40 CFR Part 73, Subpart B – Sulfur Dioxide Allowance System
40 CFR Part 75 – Continuous Emission Monitoring
40 CFR Part 76 – Acid Rain Nitrogen Oxide Emission Reduction Program
40 CFR Part 77 – Excess Emissions
40 CFR Part 64 – Compliance Assurance Monitoring
40 CFR Part 82 – Protection of Stratospheric Ozone

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 PM_{10} SO_2 VOC CO NO_x Lead*	1,663.0 1,511.0 20,984.9 79.2 6,500.7 12,212.1 0.7	6,952.5 6,538.2 91,913.7 322.4 28,473.1 53,488.9 2.1
HAPs		Acenaphthene* Acenaphthylene* Acetaldehyde* Acrolein* Anthracene* Arsenic* Benzene* Benzyl chloride* Beryllium* Cadmium*	0.02 0.02 0.60 0.32 0.02 0.45 1.38 0.74 0.05 0.07	0.02 0.02 2.64 1.34 0.02 1.91 5.98 3.22 0.11 0.25

EMISSION SUMMARY				
Source Number	Description	Pollutant	Emission Rates	
			lb/hr	tpy
		Carbon Disulfide*	0.14	0.60
		2-Chloroacetophenone*	0.02	0.04
		Chloroform*	0.08	0.28
		Chromium*	0.29	1.21
		Chromium VI*	0.10	0.38
		Cobalt*	0.12	0.46
		Cyanide*	2.64	11.50
		Dimethyl sulfate*	0.06	0.24
		Ethylene Dichloride*	0.06	0.20
		Fluoranthene*	0.02	0.02
		Fluorene*	0.02	0.02
		Formaldehyde*	0.79	3.37
		Hydrogen Chloride	1,260.00	5,518.80
		Hydrogen Fluoride	157.50	689.86
		Isophorone*	0.62	2.68
		Manganese*	0.53	2.27
		Mercury*	0.11	0.41
		Methyl Chloride*	0.56	2.44
		Methyl Ethyl Ketone*	0.42	1.80
		Methyl Hydrazine*	0.18	0.80
		Methylene Chloride*	0.32	1.34
		Nickel*	0.31	1.31
		Phenanthrene*	0.02	0.02
		Phenol*	0.02	0.08
		POM*	0.07	0.24
		Propionaldehyde*	0.40	1.76
		Pyrene*	0.02	0.02
		Selenium*	1.39	6.00
		Styrene*	0.04	0.12
		Toluene*	0.26	1.12
		2,3,7,8-TCDD*	0.02	0.02
Air Contaminants **		N_2O**	84.35	369.45
		H_2SO_4**	40.76	178.52
SN-01 (C1)	Unit 1 Boiler – Coal Fired	PM	714.0	3,127.4
		PM_{10}	714.0	3,127.4
		SO_2	10,440.0	45,727.2
		VOC	35.0	153.3
		CO	3,247.0	14,221.9
		NO_x	6,090.0	26,674.2
		Lead*	0.3	1.0

EMISSION SUMMARY				
Source Number	Description	Pollutant	Emission Rates	
			lb/hr	tpy
		Acenaphthene*	0.01	0.01
		Acenaphthylene*	0.01	0.01
		Acetaldehyde*	0.30	1.32
		Acrolein*	0.16	0.67
		Anthracene*	0.01	0.01
		Arsenic*	0.22	0.95
		Benzene*	0.69	2.99
		Benzyl chloride*	0.37	1.61
		Beryllium*	0.02	0.05
		Cadmium*	0.03	0.12
		Carbon Disulfide*	0.07	0.30
		2-Chloroacetophenone*	0.01	0.02
		Chloroform*	0.04	0.14
		Chromium*	0.14	0.60
		Chromium (VI)*	0.05	0.19
		Cobalt*	0.06	0.23
		Cyanide*	1.32	5.75
		Dimethyl sulfate*	0.03	0.12
		Ethylene Dichloride*	0.03	0.10
		Fluoranthene*	0.01	0.01
		Fluorene*	0.01	0.01
		Formaldehyde*	0.13	0.56
		Hydrogen Chloride	630.00	2759.40
		Hydrogen Fluoride	78.75	344.93
		Isophorone*	0.31	1.34
		Manganese*	0.26	1.13
		Mercury*	0.05	0.20
		Methyl Chloride*	0.28	1.22
		Methyl Ethyl Ketone*	0.21	0.90
		Methyl Hydrazine*	0.09	0.40
		Methylene Chloride*	0.16	0.67
		Nickel*	0.15	0.65
		Phenanthrene*	0.01	0.01
		Phenol*	0.01	0.04
		POM*	0.03	0.10
		Propionaldehyde*	0.20	0.88
		Pyrene*	0.01	0.01
		Selenium*	0.69	2.99
		Styrene*	0.02	0.06
		Toluene*	0.13	0.56

EMISSION SUMMARY				
Source Number	Description	Pollutant	Emission Rates	
			lb/hr	tpy
		2,3,7,8-TCDD*	0.01	0.01
		N_2O**	42.00	183.96
		H_2SO_4**	12.77	55.93
SN-01 (C1)	Unit 1 Boiler – No. 2 Fuel Oil or Bio-diesel	PM	24.1	105.6
		PM_{10}	16.8	73.6
		SO_2	10,440.0	45,727.2
		VOC	35.0	153.3
		CO	3,247.0	14,221.9
		NO_x	6,090.0	26,674.2
		Lead*	0.1	0.1
		Arsenic*	0.01	0.02
		Beryllium*	0.01	0.02
		Cadmium*	0.01	0.02
		Chromium*	0.01	0.02
		Formaldehyde*	0.36	1.54
		Manganese*	0.01	0.03
		Mercury*	0.01	0.02
		Nickel*	0.01	0.02
		POM*	0.03	0.11
		Selenium*	0.02	0.07
		N_2O**	1.90	8.32
		H_2SO_4**	7.61	33.33
SN-02 (C2)	Unit 2 Boiler – Coal Fired	PM	714.0	3,127.4
		PM_{10}	714.0	3,127.4
		SO_2	10,440.0	45,727.2
		VOC	35.0	153.3
		CO	3,247.0	14,221.9
		NO_x	6,090.0	26,674.2
		Lead*	0.3	1.0
		Acenaphthene*	0.01	0.01
		Acenaphthylene*	0.01	0.01
		Acetaldehyde*	0.30	1.32
		Acrolein*	0.16	0.67
		Anthracene*	0.01	0.01
		Arsenic*	0.22	0.95
		Benzene*	0.69	2.99
		Benzyl chloride*	0.37	1.61
		Beryllium*	0.02	0.05
		Cadmium*	0.03	0.12
		Carbon Disulfide*	0.07	0.30

EMISSION SUMMARY				
Source Number	Description	Pollutant	Emission Rates	
			lb/hr	tpy
		2-Chloroacetophenone*	0.01	0.02
		Chloroform*	0.04	0.14
		Chromium*	0.14	0.60
		Chromium (VI)*	0.05	0.19
		Cobalt*	0.06	0.23
		Cyanide*	1.32	5.75
		Dimethyl sulfate*	0.03	0.12
		Ethylene Dichloride*	0.03	0.10
		Fluoranthene*	0.01	0.01
		Fluorene*	0.01	0.01
		Formaldehyde*	0.13	0.56
		Hydrogen Chloride	630.00	2759.40
		Hydrogen Fluoride	78.75	344.93
		Isophorone*	0.31	1.34
		Manganese*	0.26	1.13
		Mercury*	0.05	0.20
		Methyl Chloride*	0.28	1.22
		Methyl Ethyl Ketone*	0.21	0.90
		Methyl Hydrazine*	0.09	0.40
		Methylene Chloride*	0.16	0.67
		Nickel*	0.15	0.65
		Phenanthrene*	0.01	0.01
		Phenol*	0.01	0.04
		POM*	0.03	0.10
		Propionaldehyde*	0.20	0.88
		Pyrene*	0.01	0.01
		Selenium*	0.69	2.99
		Styrene*	0.02	0.06
		Toluene*	0.13	0.56
		2,3,7,8-TCDD*	0.01	0.01
		N_2O**	42.00	183.96
		H_2SO_4**	12.77	55.93
SN-02 (C2)	Unit 2 Boiler – No. 2 Fuel Oil or Bio-diesel	PM	24.1	105.6
		PM_{10}	16.8	73.6
		SO_2	10,440.0	45,727.2
		VOC	35.0	153.3
		CO	3,247.0	14,221.9
		NO_x	6,090.0	26,674.2
		Lead*	0.1	0.1
		Arsenic*	0.01	0.02

EMISSION SUMMARY				
Source Number	Description	Pollutant	Emission Rates	
			lb/hr	tpy
		Beryllium*	0.01	0.02
		Cadmium*	0.01	0.02
		Chromium*	0.01	0.02
		Formaldehyde*	0.36	1.54
		Manganese*	0.01	0.03
		Mercury*	0.01	0.02
		Nickel*	0.01	0.02
		POM*	0.03	0.11
		Selenium*	0.02	0.07
		N_2O**	1.90	8.32
		H_2SO_4**	7.61	33.33
SN-03 (M1)	Rail Car Rotary Dumper	PM PM_{10} VOC	16.0 0.1 1.3	70.1 0.1 ***
SN-04 (M30-31)	Fly Ash Silo with Fabric Filters	PM PM_{10}	4.0 0.1	17.6 0.1
SN-05 (C3)	Auxiliary Boiler	PM	4.5	19.4
		PM_{10}	4.5	19.4
		SO_2	104.9	459.3
		VOC	0.4	1.5
		CO	6.7	29.3
		NO_x	32.1	140.5
		Lead*	0.1	0.1
		Arsenic*	0.01	0.01
		Beryllium*	0.01	0.01
		Cadmium*	0.01	0.01
		Chromium*	0.01	0.01
		Formaldehyde*	0.07	0.29
		Manganese*	0.01	0.01
		Mercury*	0.01	0.01
		Nickel*	0.01	0.01
		POM*	0.01	0.02
		Selenium*	0.01	0.02
		N_2O**	0.35	1.53
SN-06A	Handling/ Conveying Emissions	PM PM_{10}	0.6 0.3	2.5 2.2***
SN-06B	Stacker/ Reclaimer	PM PM_{10}	0.6 0.3	2.3 1.1

EMISSION SUMMARY				
Source Number	Description	Pollutant	Emission Rates	
			lb/hr	tpy
	Emissions			
SN-06C	Storage Piles/Haul Road Emissions	PM PM_{10}	190.4 66.0	521.1 215.4
SN-07 (T1)	Fuel Oil Tank	VOC	0.4	1.6
SN-14 (T25)	Miscellaneous Storage Tanks	VOC	0.1	0.1
SN-15 (T26)	Miscellaneous Storage Tanks	VOC	0.1	0.1
SN-16 (T32)	Miscellaneous Storage Tanks	VOC	0.1	0.1
SN-17 (X24)	Cooling Tower	PM PM_{10}	4.6 4.6	19.9 19.9
SN-18 (X25)	Cooling Tower	PM PM_{10}	4.6 4.6	19.9 19.9
SN-19	Coal Barging and Transfer	PM PM_{10}	9.7 2.5	24.9 6.3
SN-20	Degreasing Operations	VOC	6.8	10.2

* - 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.
*** - Annual VOC emissions for SN-03 and SN-06A are bubbled together.

SECTION III: PERMIT HISTORY

263-A was the first permit issued to the facility. 263-A permitted the installation of two coal-fired steam electric generating units served by a combined 1000 foot stack. The permit established the New Source Performance Standards limits for sulfur dioxide by usage of low sulfur coal.

263-AR-1 was issued to Arkansas Power & Light Company - White Bluff Steam Electric Station on April 9, 1991. After the issuance of permit 263-A, it was discovered that the particulate emission limitation was 0.027 lb/MMBtu heat input instead of the 40 CFR 60 Subpart D limit of 0.10 lb/MMBtu heat input. The more stringent limitation caused a problem with compliance with the operating permit. Due to the variability in the quality of coal, AP&L requested a revised particulate emission limit in order to maintain compliance with its operating permit. Air permit 263-AR-1 incorporated the new limits for particulate matter, identified source of pollution not previously addressed in the original permit, and estimated pollution emissions from fuel oil storage facilities and air toxic emissions.

263-AOP-R0 was the first operating air permit issued to Entergy-Arkansas, Inc. - White Bluff Steam Electric Station under Regulation 26. No physical changes in the method of operation at the facility occurred prompting this permit issuance.

> Entergy-Arkansas, Inc. proposed to increase the CO limit for the White Bluff facility from 300 lb/hr (50 ppm) to 3247.0 lb/hr or 300 ppm hourly (100 ppm 24-hour average) to reflect actual emissions indicated by stack testing. This increase in CO emissions is not subject to PSD review, because previous permit limits were based on AP-42 factors that were inaccurate for this facility. Also, the White Bluff Steam Electric Station began construction before the PSD regulations were promulgated. Modeling analysis at a 500 ppm emission rate was conducted and showed no significant impact to the *NAAQS*.
>
> Entergy-Arkansas, Inc. elected to take on a new NO_X emission limit of 0.45 lb/MMBtu annual average at White Bluff Units 1 and 2. This early election was allowed under 40 CFR 76 of the Acid Rain Regulations. This limit applied beginning calendar year 1997. However, Entergy shall not submit an application for an alternative emissions limitation demonstration period until the earlier of January 1, 2008 or early election is terminated pursuant to 40 CFR 76.8. The NSPS limit of 0.7 lb/MMBtu and the state-imposed lb/hr limit will still apply to these units.

263-AOP-R1 was issued on May 30, 2000. The facility modified the Title V permit to allow for the receipt of coal via barge. Barges arrived at the plant on the Arkansas River. The coal was transferred from the barge to trucks through a series of conveyors and hoppers (SN-19). This modification also moved the following sources to the insignificant activities list: SN-08, SN-09, SN-10, SN-11, SN-12, and SN-13.

263-AOP-R2 was issued on December 20, 2002. This minor modification was necessary to replace the control equipment associated with the Rail Car Rotary Dumper (SN-03) and

Handling/Conveying Emissions (SN-06) with non-hazardous dust suppressant chemical foam spraying stations. The volatile organic compound (VOC) emissions from the dust suppressant chemical foam spray were permitted at 17.7 tons per year. This permitting action also modified the visible emissions conditions for SN-06. In addition, the following sources no longer operate or never existed at the facility and were removed from the permit: Barge Unloading Operations (SN-19) and some of the Handling/Conveying Emissions (SN-06) M10 Emergency Stackout Pile, M12 Dead Storage Hopper 4A, M13 Dead Storage Hopper 3A, M14 Dead Storage Hopper 2A, and M33 Fly Ash Rail Car Loading Silo. The M15 Dead Storage Vault was removed from the permit as a source of emissions since it is completely enclosed, underground, and the rotoclone dust collector connected to it is inoperable. This rotoclone was removed or abandoned in place.

263-AOP-R3 was issued on April 28, 2005. In addition to renewing the facility's Title V air permit, this permitting action was necessary to permit emissions of hazardous air pollutants (HAPs); recalculate the permitted coal handling emission rates (SN-06); increase the throughput of SN-14 and SN-16; update the PM and PM_{10} emission rates (SN-01, SN-02, and SN-05) to include condensable particulate matter; update the insignificant activities list; add new stack testing requirements for PM, PM_{10}, and CO; permit the degreasers (SN-20) which were previously submitted as insignificant; correct the fly ash silos (SN-04) permitted PM emission rates; correct the facility name to Entergy Arkansas, Inc. from Entergy Services, Inc.; remove emission point M32 (SN-06A) since this emission point has been removed from service; increase the cooling tower circulating water flow rates (SN-17 and SN-18); and reduce the permitted VOC content of the chemical foam spray used at SN-03 and SN-06A. The total permitted emission rate increases due to this permitting action included: 1,013.6 tons per year (tpy) PM, 738.7 tpy PM_{10}, 39.2 tpy SO_2, and all hazardous air pollutant and air contaminant emission rates for this facility increased due to these pollutants previously not being permitted.

263-AOP-R4 was issued on April 26, 2006. Entergy Arkansas, Inc. - White Bluff located in Redfield, Arkansas is a two-unit electric generating station which generates electric energy for sale. This permitting action is necessary to:

1. Permit coal barging and transfer (SN-19);
2. Increase the permitted circulating water flow rate to 22,125 kgal/hr for the cooling towers (SN-17 and SN-18);
3. Reduce the permitted TDS (total dissolved solids) limit to 2,800 parts per million for the cooling towers (SN-17 and SN-18);
4. Remove the words "from northeastern Wyoming" from the process description;
5. Remove the "-88" from ASTM D4507-88 in Specific Condition # 29;
6. Add 40 CFR Part 63, Subpart DDDDD - *National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters* as applicable to SN-05;
7. Allow for the use of bituminous coal;
8. Increase the coal sulfur and ash contents;
9. Set the PM_{10} emission rate limits equal to the PM emission rate limits for SN-01 and SN-02;

10. Revise Specific Condition # 25; and
11. Add Specific Condition # 26.

The total annual permitted emission rate increases due to this permitting action include: 2,311.3 tons per year (tpy) PM and 5,034.8 tpy PM_{10}. These increases do not require PSD review because there is no physical modification to the boilers (SN-01 and SN-02) and the coal barging and transfer (SN-19) has been permitted below the PSD trigger.

0263-AOP-R5 was issued on August 24, 2007. With the modification, Entergy requested to remove the requirement to use dust suppressant foam at SN-06A. Entergy completed a project improving the conveyor enclosure seals, installed new seals, and added a dust collector. This dust collector or "Bin-vent" is vented inside the building. Entergy also submitted the language changes necessary to incorporate Bio-diesel into the permit as fuel for SN-01 or SN-02. Entergy also submitted the necessary calculations to incorporate their sulfuric acid (H_2SO_4) emissions from SN-01 and SN-02. Additionally, Entergy determined that Scenario 2 – Fuel Oil Firing, PM/PM_{10} emissions from SN-01 and SN-02 is more accurate when the control efficiency for the ESP is removed since the ESP is not in operation during startup when fuel oil is being used. Revised emissions reflecting this determination were submitted. The total annual permitted emission rate increases due to this permitting action include: 12.3 tons per year PM, 12.7 tpy PM_{10}, and 178.52 tpy H_2SO_4. Additionally, on July 30, 2007, the District of Columbia Court of Appeal vacated the National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters (Boiler MACT). Due to the Boiler MACT rules being vacated, the permit was updated by removing all conditions and wording related to the Boiler MACT.

SECTION IV: SPECIFIC CONDITIONS

SN-01, SN-02, & SN-05
Boilers

Source Description

SN-01 and SN-02 are 8700 million BTU per hour coal fired boilers. The boilers use sub-bituminous or bituminous coal as their primary fuel and No. 2 fuel oil or Bio-diesel as the start-up fuel. The boilers are permitted to operate under alternating scenarios. Scenario I represents combustion from coal and Scenario II represents No. 2 fuel oil or Bio-diesel combustion. The boilers supply steam which feed turbine generators to produce electricity. Both units are subject to NSPS Subpart D, which regulates emissions of particulate matter, sulfur dioxide and nitrogen oxides from fossil fuel-fired steam generators.

Particulate emissions from these two units are controlled with electrostatic precipitators. NSPS emissions standards for particulate matter are 0.1 lb/MMBtu and a maximum opacity of 20 percent. A continuous opacity monitor records emissions opacity.

Sulfur dioxide emissions from SN-01 and SN-02 are limited by the use of low-sulfur coal. The NSPS emission standard for sulfur dioxide is 1.2 lb/MMBtu. A continuous emissions monitor measures sulfur dioxide emissions.

SN-05 is a 183 million BTU per hour boiler. This auxiliary boiler combusts No. 2 fuel oil or Bio-diesel in order to provide steam for unit start-up activities. There are no control devices associated with this source. Emissions from this boiler are regulated under the State Implementation Plan (SIP), Regulation 19.

Specific Conditions

1. The permittee shall not exceed the emission rates, when operating under Scenario I: coal firing, set forth in the following table. [Regulation 19, §19.501 et seq., and 40 CFR Part 52, Subpart E]

SN	Description	Pollutant	lb/hr	tpy
SN-01 (C1)	Unit 1 Boiler – Coal Fired	PM_{10}	714.0	3,127.4
		SO_2	10,440.0	45,727.2
		VOC	35.0	153.3
		CO	3,247.0	14,221.9
		NO_x	6,090.0	26,674.2
		Lead	0.3	1.0
SN-02 (C2)	Unit 2 Boiler – Coal Fired	PM_{10}	714.0	3,127.4
		SO_2	10,440.0	45,727.2
		VOC	35.0	153.3

SN	Description	Pollutant	lb/hr	tpy
		CO	3,247.0	14,221.9
		NO_x	6,090.0	26,674.2
		Lead	0.3	1.0

2. The permittee shall not exceed the emission rates, when operating under Scenario I: coal firing, set forth in the following table. [Regulation 18, §18.801, and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

SN	Description	Pollutant	lb/hr	tpy
SN-01 (C1)	Unit 1 Boiler – Coal Fired	PM	714.0	3,127.4
		Acenaphthene	0.01	0.01
		Acenaphthylene	0.01	0.01
		Acetaldehyde	0.30	1.32
		Acrolein	0.16	0.67
		Anthracene	0.01	0.01
		Arsenic	0.22	0.95
		Benzene	0.69	2.99
		Benzyl Chloride	0.37	1.61
		Beryllium	0.02	0.05
		Cadmium	0.03	0.12
		Carbon Disulfide	0.07	0.30
		2-Chloroacetophenone	0.01	0.02
		Chloroform	0.04	0.14
		Chromium	0.14	0.60
		Chromium (VI)	0.05	0.19
		Cobalt	0.06	0.23
		Cyanide	1.32	5.75
		Dimethyl Sulfate	0.03	0.12
		Ethylene Dichloride	0.03	0.10
		Fluoranthene	0.01	0.01
		Fluorene	0.01	0.01
		Formaldehyde	0.13	0.56
		Hydrogen Chloride	630.00	2,759.40
		Hydrogen Fluoride	78.75	344.93
		Isophorone	0.31	1.34
		Manganese	0.26	1.13
		Mercury	0.05	0.20
		Methyl Chloride	0.28	1.22
		Methyl Ethyl Ketone	0.21	0.90
		Methyl Hydrazine	0.09	0.40
		Methylene Chloride	0.16	0.67
		Nickel	0.15	0.65

SN	Description	Pollutant	lb/hr	tpy
		Phenanthrene	0.01	0.01
		Phenol	0.01	0.04
		POM	0.03	0.10
		Propionaldehyde	0.20	0.88
		Pyrene	0.01	0.01
		Selenium	0.69	2.99
		Styrene	0.02	0.06
		Toluene	0.13	0.56
		2,3,7,8-TCDD	0.01	0.01
		N_2O	42.00	183.96
		H_2SO_4	12.77	55.93
SN-02 (C2)	Unit 2 Boiler – Coal Fired	PM	714.0	3,127.4
		Acenaphthene	0.01	0.01
		Acenaphthylene	0.01	0.01
		Acetaldehyde	0.30	1.32
		Acrolein	0.16	0.67
		Anthracene	0.01	0.01
		Arsenic	0.22	0.95
		Benzene	0.69	2.99
		Benzyl Chloride	0.37	1.61
		Beryllium	0.02	0.05
		Cadmium	0.03	0.12
		Carbon Disulfide	0.07	0.30
		2-Chloroacetophenone	0.01	0.02
		Chloroform	0.04	0.14
		Chromium	0.14	0.60
		Chromium (VI)	0.05	0.19
		Cobalt	0.06	0.23
		Cyanide	1.32	5.75
		Dimethyl Sulfate	0.03	0.12
		Ethylene Dichloride	0.03	0.10
		Fluoranthene	0.01	0.01
		Fluorene	0.01	0.01
		Formaldehyde	0.13	0.56
		Hydrogen Chloride	630.00	2,759.40
		Hydrogen Fluoride	78.75	344.93
		Isophorone	0.31	1.34
		Manganese	0.26	1.13
		Mercury	0.05	0.20
		Methyl Chloride	0.28	1.22
		Methyl Ethyl Ketone	0.21	0.90
		Methyl Hydrazine	0.09	0.40

SN	Description	Pollutant	lb/hr	tpy
		Methylene Chloride	0.16	0.67
		Nickel	0.15	0.65
		Phenanthrene	0.01	0.01
		Phenol	0.01	0.04
		POM	0.03	0.10
		Propionaldehyde	0.20	0.88
		Pyrene	0.01	0.01
		Selenium	0.69	2.99
		Styrene	0.02	0.06
		Toluene	0.13	0.56
		2,3,7,8-TCDD	0.01	0.01
		N_2O	42.00	183.96
		H_2SO_4	12.77	55.93

3. SN-01 and SN-02 are subject to 40 CFR, Part 60, Subpart D, Standards of Performance for fossil fuel-fired steam generators due to a heat input capacity of greater than 250 MMBtu/hr. Applicable provisions of Subpart D (Appendix A) include, but are not limited to the following [Regulation 19, §19.304, and 40 CFR Part 60]:

   a. PM emissions shall not exceed 0.1 lb/MMBtu. [40 CFR 60.42(a)(1)]
   b. Opacity shall not exceed 20 percent except for one six-minute period per hour of not more than 27 percent opacity and as except as provided by 40 CFR 60.8 and 60.11. [40 CFR 60.42(a)(2)]
   c. SO_2 emissions shall not exceed 1.2 lb/MMBtu. [40 CFR 60.43]
   d. NO_X emissions shall not exceed 0.7 lb/MMBtu. [40 CFR 60.44(a)(3)]
   e. The permittee shall install, calibrate, and maintain Continuous Emissions Monitoring Systems (CEMS) for NO_X, SO_2, CO_2, and opacity. The CO_2 monitor and analyzer serve as the diluent in this system. [40 CFR 60.45(a)]
   f. Excess opacity emissions are defined as any six minute period during which the average opacity emissions exceed 20%, except for one 6 minute average per hour of up to 27% opacity. [40 CFR 60.45(g)(1)]
   g. Excess SO_2 emissions are defined as any 3-hour period during which the average emissions (arithmetic average of three contiguous one-hour periods) of SO_2 as measured by a CEMS exceed the applicable standard under 60.43. [40 CFR 60.45(g)(2)]
   h. Excess NO_X emissions are defined as any 3-hour period during which the average emissions (arithmetic average of three contiguous one-hour periods) of NO_X as measured by a CEMS exceed the applicable standard under 60.44. [40 CFR 60.45(g)(3)]
   i. Excess emission and monitoring system performance reports shall be submitted to the ADPC&E for every calendar quarter. Quarterly reports shall be postmarked by the 30th day following the end of the calendar quarter. Excess emissions are defined in 60.45(g). [40 CFR 60.45(g)]

4. The permittee shall maintain records which demonstrate compliance with the SO_2 emission limits set in Specific Conditions # 1 and # 3. These records may be used by the Department for enforcement purposes. For Specific Condition # 1, compliance shall be determined as the arithmetic average of three one-hour periods of SO_2 emissions as measured by the CEMS and converted to pounds per hour per 40 CFR Part 75. For Specific Condition # 3, compliance shall be determined as the arithmetic average of three contiguous one-hour periods of SO_2 as measured by a CEMS and converted to pounds per MMBtu per 40 CFR Part 60. These records shall be kept on site and shall be provided to Department personnel upon request. Records shall be submitted in accordance with General Provisions # 7 and # 8. [Regulation 19, §19.705, and 40 CFR Part 52, Subpart E]

5. The permittee shall maintain records which demonstrate compliance with the NO_X emission limits set in Specific Conditions # 1 and # 3. These records may be used by the Department for enforcement purposes. For Specific Condition # 1, compliance shall be determined as the arithmetic average of three contiguous one-hour periods of NO_X emissions as measured by the CEMS and converted to pounds per hour per 40 CFR Part 75. For Specific Condition # 3, compliance shall be determined as the arithmetic average of three contiguous one-hour periods of NO_X as measured by a CEMS and converted to pounds per MMBtu per 40 CFR Part 60. These records shall be kept on site and shall be provided to Department personnel upon request. Records shall be submitted in accordance with General Provisions #7 and #8. [§19.705 of Regulation 19, and 40 CFR Part 52, Subpart E]

6. The permittee shall not cause to be discharged to the atmosphere from the boilers any emissions which exhibit an opacity greater than 20 percent when firing coal or No. 2 fuel oil. The opacity shall not exceed 20 percent (6-minute average), except for one 6-minute period per hour not to exceed 27 percent. Opacity exceedances shall be reported in accordance with Specific Condition # 7. [§19.503 of Regulation 19, and 40 CFR Part 52, Subpart E and 40 CFR 60.42(a)(2)]

7. The permittee shall install, calibrate, maintain, and operate a continuous emission monitoring system (CEMS) for measuring opacity of emissions and all SO_2, NO_X, and CO_2 emissions from SN-01 and SN-02 and record the output of the system. The CO_2 monitor and analyzer serve as the diluent in this system. This CEMS shall comply with the Air Division's "Continuous Emission Monitoring Systems Conditions". A copy is provided in Appendix B. The permittee shall report all excess emissions as defined by 40 CFR 60.45(g)(1), (2), and (3) and in accordance with 40 CFR 60.7(c).

   Except for opacity, the permittee must report all excess emissions including those excess emissions caused by startups, shutdowns, and malfunctions. For opacity, all exceedances must be reported in the quarterly reports including those attributable to startup, shutdown, and malfunction. Only those opacity exceedances that are not attributable to startup, shutdown, and malfunction will be used for calculating the percentage of compliance with the NSPS opacity limit. Opacity exceedances would not be reported under §19.601 of Regulation 19 for startup, shutdown, and malfunction.

The number of startup and shutdown occurrences that occur at this facility have historically ranged from 12 to 24 per year. In general, startup begins when the ID and FD fans are started with the intent to fire the unit. Normally, startup ends when the unit achieves stable operation and the following operating parameters are met: (1) the electrostatic precipitator is placed in service, and (2) startup oil is no longer necessary to support combustion. Duct sweeps are usually considered a part of the startup operation. For these units, shutdown normally begins when the unit load or output is reduced with the intent of removing the unit from service, or when the unit trips as the result of sudden and unforeseen failure or malfunction. Shutdown ends when the unit is no longer combusting fuel and fan operation is no longer required. [§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]

8. The permittee shall submit quarterly excess emissions and monitoring systems performance reports to the Department. The reports shall include the magnitude of excess emissions, date and time of commencement and completion of each time period of excess emissions, process operating time during reporting period, date and time of each period during which the CEMS were inoperative, identification of each period of excess emissions that occurs during startup, shutdown, and malfunctions of the units, nature and cause of any malfunction (if known), and the corrective action or preventative measure adopted. [§19.304 of Regulation 19, and 40 CFR 60.7] Reports shall be sent to the following address:

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

9. The permittee shall ensure that all continuous emission and opacity monitoring systems are in operation and monitoring all unit emissions or opacity at all times that the affected unit combusts any fuel, except during periods of calibration, quality assurance, preventative maintenance or repair. [§19.304 of Regulation 19, and 40 CFR 75.10]

10. The permittee shall not exceed the emission rates, when operating under Scenario II: No. 2 fuel oil or Bio-diesel firing, set forth in the following table. [§19.501 of Regulation 19 et seq, and 40 CFR Part 52, Subpart E]

SN	Description	Pollutant	lb/hr	tpy
01 (C1)	Unit 1 Boiler – No. 2 Fuel Oil or Bio-diesel	PM_{10}	16.8	73.6
		SO_2	10,440.0	45,727.2
		VOC	35.0	153.3
		CO	3,247.0	14,221.9

SN	Description	Pollutant	lb/hr	tpy
		NO_x	6,090.0	26,674.2
		Lead	0.1	0.1
02 (C2)	Unit 2 Boiler – No. 2 Fuel Oil or Bio-diesel	PM_{10}	16.8	73.6
		SO_2	10,440.0	45,727.2
		VOC	35.0	153.3
		CO	3,247.0	14,221.9
		NO_x	6,090.0	26,674.2
		Lead	0.1	0.1

11. The permittee shall not exceed the emission rates, when operating under Scenario II: No. 2 fuel oil or Bio-diesel firing, set forth in the following table. [§18.801 of Regulation 18, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

SN	Description	Pollutant	lb/hr	tpy
01 (C1)	Unit 1 Boiler – No. 2 Fuel Oil or Bio-diesel	PM	24.1	105.6
		Arsenic	0.01	0.02
		Beryllium	0.01	0.02
		Cadmium	0.01	0.02
		Chromium	0.01	0.02
		Formaldehyde	0.36	1.54
		Manganese	0.01	0.03
		Mercury	0.01	0.02
		Nickel	0.01	0.02
		POM	0.03	0.11
		Selenium	0.02	0.07
		N_2O	1.90	8.32
		H_2SO_4	7.61	33.33
02 (C2)	Unit 2 Boiler – No. 2 Fuel Oil or Bio-diesel	PM	24.1	105.6
		Arsenic	0.01	0.02
		Beryllium	0.01	0.02
		Cadmium	0.01	0.02
		Chromium	0.01	0.02
		Formaldehyde	0.36	1.54
		Manganese	0.01	0.03
		Mercury	0.01	0.02
		Nickel	0.01	0.02
		POM	0.03	0.11
		Selenium	0.02	0.07
		N_2O	1.90	8.32
		H_2SO_4	7.61	33.33

12. The permittee shall maintain records which demonstrate compliance with the SO_2 emission limits set in Specific Condition # 10. These records may be used by the Department for enforcement purposes. For Specific Condition # 10, compliance shall be determined as the arithmetic average of three contiguous one-hour periods of SO_2 emissions as measured by the CEMS and converted to pounds per hour per 40 CFR Part 75. These records shall be kept on site and shall be provided to Department personnel upon request. Records shall be submitted in accordance with General Provisions #7 and #8. [§19.705 of Regulation 19, and 40 CFR Part 52, Subpart E]

13. The permittee shall maintain records which demonstrate compliance with the NO_X emission limits set in Specific Condition # 10. These records may be used by the Department for enforcement purposes. For Specific Condition # 10, compliance shall be determined as the arithmetic average of three contiguous one-hour periods of NO_X emissions as measured by the CEMS and converted to pounds per hour per 40 CFR Part 75. These records shall be kept on site and shall be provided to Department personnel upon request. Records shall be submitted in accordance with General Provisions #7 and #8. [§19.705 of Regulation 19, and 40 CFR Part 52, Subpart E]

14. The permittee may burn No. 2 Fuel Oil or Bio-diesel during startup, shutdown, and malfunction. For all other No. 2 Fuel Oil burning activities, the permittee shall submit a request to EPA for a determination regarding the applicability of NSPS Subpart D limits and testing requirements during the coal and fuel oil and fuel oil only firing scenarios. Within 30 days of permit issuance, this request shall be submitted to EPA and a copy shall be submitted to the Department. The facility submitted a request for determination on May 25, 2005. The permittee may burn No. 2 Fuel Oil or Bio-diesel until a determination is made by EPA. [A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

15. 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. [40 CFR 70.6(a)(9)(i), §26.7 of Regulation #26, and in accordance with General Provision #17]

16. The permittee shall not exceed 91,454.4 tons/year of SO_2 emissions for any consecutive twelve month period from SN-01 and SN-02 when firing coal or No. 2 fuel oil. [§19.501 of Regulation 19 et seq, and 40 CFR Part 52, Subpart E]

17. The permittee shall maintain monthly records which demonstrate compliance with the limit set in Specific Condition # 16. These records may be used by the Department for enforcement purposes. The records shall be updated no later than the last day of the month following the month to which the records pertain. The records shall be kept on site, and shall be provided to Department personnel upon request. A twelve month rolling total and each individual month's data shall be submitted in accordance with General Provision #7. [§19.705 of Regulation 19, and 40 CFR Part 52, Subpart E]

18. The permittee shall not exceed 53,348.4 tons/year of NO_X emissions for any consecutive twelve month period from SN-01 and SN-02 when firing coal or No. 2 fuel oil. [§19.501 of Regulation 19 et seq, and 40 CFR Part 52, Subpart E]

19. The permittee shall maintain monthly records which demonstrate compliance with the limit set in Specific Condition # 18. These records may be used by the Department for enforcement purposes. The records shall be updated no later than the last day of the month following the month to which the records pertain. The records shall be kept on site, and shall be provided to Department personnel upon request. A twelve month rolling total and each individual month's data shall be submitted in accordance with General Provision #7. [§19.705 of Regulation 19, and 40 CFR Part 52, Subpart E]

20. SN-01 and SN-02 are subject to and shall comply with all applicable provisions of the Acid Rain Program. [§19.304 of Regulation 19, and 40 CFR Parts 72, 73, 75, 76, and 77]

21. The permittee shall submit the required Electronic Data Reports to EPA Headquarters. [§19.304 of Regulation 19, and 40 CFR 75]

22. The permittee will perform Relative Accuracy tests in accordance with 40 CFR Part 75. This relative accuracy test will meet the requirements under 40 CFR Part 60, Subpart D. [§19.304 of Regulation 19, and 40 CFR 75.10]

23. The permittee shall determine and record the heat input to each affected unit (SN-01 and SN-02) for every hour or part of an hour any fuel is combusted following the procedures in Appendix F of 40 CFR Part 75. This calculation will meet the requirements under 40 CFR Part 60, Subpart D. [§19.304 of Regulation 19, and 40 CFR 75.10(c)]

24. The permittee shall test SN-01 and SN-02 for CO while operating under Scenario I: Coal Firing and while operating at 90% or greater capacity. Emission results shall be extrapolated to correlate with 100% of the permitted capacity derived from the average of three, one-hour tests to determine compliance. This testing shall be conducted within 180 days of permit issuance and every five years thereafter. These tests shall be performed using EPA Reference Method 10, and shall be conducted in accordance with Plantwide Condition #3. [§19.702 of Regulation 19 and 40 CFR Part 52, Subpart E]

25. The permittee shall test SN-01 and SN-02 for PM and PM_{10} while operating under Scenario I: Coal Firing and while operating at 90% or greater capacity. Emission results shall be extrapolated to correlate with 100% of the permitted capacity to determine compliance. The PM test shall be performed using EPA Reference Methods 5 and 202. The PM_{10} test shall be performed using EPA Reference Methods 201A and 202. These tests shall be conducted in accordance with Plantwide Condition #3. This testing shall be conducted within 180 days of permit issuance and every five years thereafter. [§19.702 of Regulation 19 and 40 CFR Part 52, Subpart E]

26. The ash content of the coal or coal blend shall not exceed 15.96 lb/MMBtu and the sulfur content of the coal or coal blend shall not exceed 0.72%, unless the following equation can be met:

$$\left[\left((0.1 \times S) - 0.03\right) \times 8700\right] + \left[\left(10 \times (1 - 0.995) \times A \times 8700 \times \left(\frac{1}{C}\right)\right)\right] \leq 714 \text{ lb/hr}$$

where S = sulfur %,
A = ash %, and
C = coal heat value in MMBtu/ton.

The permittee shall maintain records that demonstrate compliance with this specific condition. These records shall include the certificate of analysis and, if applicable, the calculation results. If blending is necessary, the permittee shall also keep records of the data used to obtain the blended coal properties. If coal samples are used to demonstrate compliance with blended coal, the sampling method must be approved in advance by the Department. These records shall be kept on site and made available to Department personnel upon request. [§19.705 of Regulation 19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR 70.6]

27. The permittee shall monitor the opacity of SN-01 and SN-02 using a continuous opacity monitoring system. The permittee shall initiate corrective action when the measured opacity is greater than 20% for a one-hour average, and shall report any excursions where the opacity is greater than 20% on a three-hour average. Corrective action may include, but is not limited to, ESP inspection, returning tripped ESP sections to service, ash removal system evaluation, and load reduction, if necessary. During startup when the ESP is offline, the corrective actions referenced above will not be required but startup shall be minimized. The permittee shall maintain records of the measured opacity and any corrective actions taken. A monitoring report shall be submitted to the Department in accordance with General Provision #7 and shall include the following per 40 CFR §64.9(a)(2):

a. The information required under 40 CFR §70.6(a)(3)(iii);

b. Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken;

c. Summary information on the number, duration and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable); and

d. A description of the actions taken to implement a QIP, if required, during the reporting period as specified in §64.8. Upon completion of a QIP, the owner or operator shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring. A QIP shall be required if the excess emissions for opacity, as reported on the Quarterly Excess Emissions Report, exceeds 5% of the unit operating time.

All opacity exceedances must be reported in the quarterly reports including those attributable to startup, shutdown, and malfunction. Opacity exceedances would not be reported under §19.601 of Regulation 19 for startup, shutdown, and malfunction. In accordance with §64.7(d)(2), a determination may be made by the Department regarding whether the permittee has used acceptable procedures in response to an excursion or an exceedance. [§19.304 of Regulation 19, and 40 CFR Part 64]

28. The opacity for SN-01 and SN-02 shall not exceed 20% opacity except that emissions greater than 20% opacity but not exceeding 60% opacity will be allowed for not more than six (6) minutes in the aggregate in any consecutive 60-minute period, provided such emissions will not be permitted more than three (3) times during any 24-hour period. However, the opacity limits imposed by this condition will be held in abeyance provided that opacity does not exceed 20% except that emissions greater than 20% opacity but not exceeding 27% opacity will be allowed for not more than one 6-minute period per hour, provided such emissions will not be permitted more than ten (10) times per day. Violations of this condition may be allowed as a direct result of unavoidable upset conditions in the nature of the process, or unavoidable and unforeseeable breakdown of any air pollution control equipment or related operating equipment, or as a direct result of shutdown or start-up of the operating unit, provided the following requirements are met:

   a. Such occurrence, in the case of unavoidable upset in or breakdown of equipment, shall have been reported to the Department by means of a notification delivered by phone, fax, or email by the end of the next business day after the discovery of the occurrence.

   b. The facility shall submit to the Department, at its request, a full report of such occurrence, including a statement of all known causes and of the scheduling and nature of the actions to be taken to minimize or eliminate future occurrences, including, but not limited to, action to reduce the frequency of occurrence of such conditions, to minimize the amount by which said limits are exceeded, and to reduce the length of time for which said limits are exceeded.

   c. In the case of shutdown for necessary scheduled maintenance, the intent to shutdown shall be reported to the Department at least twenty-four (24) hours prior to the shutdown; provided, however, that the exception provided by this condition shall only apply in those cases where maximum reasonable effort has been made to accomplish such maintenance during periods of non operation of any related source operation or where it would be unreasonable or impossible to shut down the source operation during the maintenance period. Any information which is considered a trade secret under 8-4-308 shall be submitted with an affidavit containing the information of Regulation 18.1402(B).

d. Demonstrates to the satisfaction of the Department that the emissions resulted from:

i. Equipment malfunction or upset and are not the result of negligence or improper maintenance;

ii. Physical constraints on the ability of a source to comply with the emission standard, limitation or rate during startup or shutdown;

And that all reasonable measures have been taken to immediately minimize or eliminate the excess emissions. Opacity exceedances shall be reported in accordance with Specific Condition # 7. [§18.102(C), §18.501, and §18.1101 of Regulation 18 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

29. The permittee shall sample and analyze each shipment of fuel oil or Bio-diesel to determine the sulfur content. The sulfur content shall not exceed 0.5 weight percent. 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. A shipment shall be defined as a 5,000 or 10,000 barrel lot delivered to a pipeline and pumped to a loading rack. *(Note: Vendor testing would satisfy this requirement as long as the sampling is performed according to ASTM D4057 and the facility is able to meet the requirements of Specific Condition # 30.)* [§19.705 of Regulation 19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR 70.6]

30. The permittee shall maintain records of fuel oil analysis. These records shall be kept on site and made available to Department personnel upon request. These records may be used by the Department for enforcement purposes. [§19.705 of Regulation 19, and 40 CFR Part 52, Subpart E]

31. No. 2 fuel oil or Bio-diesel is the only fuel permitted for use in the Auxiliary boiler, SN-05. [§19.705 of Regulation 19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR 70.6]

32. The permittee shall not exceed the emission rates set forth in the following table when burning No. 2 fuel oil or Bio-diesel in the Auxiliary boiler, SN-05. [§19.501 of Regulation 19 et seq, and 40 CFR Part 52, Subpart E]

SN	Description	Pollutant	lb/hr	tpy
05 (C3)	Auxiliary Boiler	PM_{10}	4.5	19.4
		SO_2	104.9	459.3
		VOC	0.4	1.5

SN	Description	Pollutant	lb/hr	tpy
		CO	6.7	29.3
		NO_x	32.1	140.5
		Lead	0.1	0.1

33. The permittee shall not exceed the emission rates set forth in the following table when burning No. 2 fuel oil or Bio-diesel in the Auxiliary boiler, SN-05. [§18.801 of Regulation 18, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

SN	Description	Pollutant	lb/hr	tpy
05 (C3)	Auxiliary Boiler	PM	4.5	19.4
		Arsenic	0.01	0.01
		Beryllium	0.01	0.01
		Cadmium	0.01	0.01
		Chromium	0.01	0.01
		Formaldehyde	0.07	0.29
		Manganese	0.01	0.01
		Mercury	0.01	0.01
		Nickel	0.01	0.01
		POM	0.01	0.02
		Selenium	0.01	0.02
		N_2O	0.35	1.53

34. The opacity shall not exceed 20% from SN-05 as measured by EPA Reference Method 9. [§18.501 of Regulation 18 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

35. Weekly observations of the opacity from SN-05 shall be conducted by personnel familiar with the permittee's visible emissions, when operated more than one continuous hour. The permittee shall keep records of these observations. The permittee shall maintain personnel trained in (but not necessarily certified in) EPA Reference Method 9. If visible emissions are detected, then the permittee shall conduct a 6-minute opacity reading in accordance with EPA Reference Method 9. Records of the opacity observations shall be updated weekly, maintained on site, and made available to Department personnel upon request. [§19.705 of Regulation 19 and 40 CFR Part 52, Subpart E]

36. The permittee shall maintain records of when SN-05 is operated. These records 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]

SN-03, SN-06A, SN-06B, and SN-06C
Rail Car Rotary Dumper and Handling/Conveying Emissions

Source Description

SN-03 The coal for the White Bluff Steam Electric Station is received by rail. Each rail car is equipped with rotary couplings which enable the rail car rotary dumper to grasp one car at a time and empty it without removing the car from the train. The rail car rotary dumper, SN-03 (M1), is capable of emptying approximately 30 cars per hour. Emissions from the rail car rotary dumper are regulated under the State Implementation Plan (SIP), Regulation 19.

SN-06 Minor emission sources at the plant include coal handling/conveying operations (not subject to NSPS Subpart Y). For this permitting action, SN-06 was separated into three sources: SN-06A, SN-06B, and SN-06C. SN-06A includes those emission points that were previously permitted as controlled with Amerclones, rotoclones, and water sprays. These emissions are now controlled with enclosures and a dust collector. This includes emission points M2, M3, M5, M6, M7, M8, M9, M16, M24, M25, M26, M27, and M28. SN-06B includes those emission points associated with the stacker reclaimer. This includes emission points M17, M18, M20, M21, M22, and M23. SN-06C includes the emissions associated with the storage piles, haul roads, and ash landfill. This includes emission points M4, M11, M19, M34, M35, and M36. The following emission points were removed from the permit since these emission points no longer exist at the White Bluff facility: M10 and M33. The following emission points were removed from the permit as sources of emissions since they are inoperable: M12, M13, and M14. The M15 Dead Storage Vault was removed from the permit as a source of emissions since it is completely enclosed, underground, and the rotoclone dust collector connected to it is inoperable. This rotoclone will be removed or abandoned in place. M32 was removed from the permit since it has been removed from service. Emissions are regulated under the State Implementation Plan, (SIP), Regulation 19.

Specific Conditions

37. The permittee shall not exceed the emission rates set forth in the following table. [Regulation 19, §19.501 et seq. and 40 CFR Part 52, Subpart E]

SN	Description	Pollutant	lb/hr	tpy
03	Rail Car Rotary Dumper	PM_{10}	0.1	0.1
		VOC	1.3	*
06A	Handling/ Conveying Emissions	PM_{10}	0.3	1.2
		VOC	0.2	2.2*
06B	Stacker/ Reclaimer Emissions	PM_{10}	0.3	1.1

SN	Description	Pollutant	lb/hr	tpy
06C	Storage Piles/Haul Road Emissions	PM_{10}	66.0	215.4

* Annual VOC emissions for SN-03 and SN-06A are bubbled together.

38. The permittee shall not exceed the emission rates set forth in the following table. [Regulation 18, §18.801 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

SN	Description	Pollutant	lb/hr	tpy
03	Rail Car Rotary Dumper	PM	16.0	70.1
06A	Handling/ Conveying Emissions	PM	0.6	2.5
06B	Stacker/ Reclaimer Emissions	PM	0.6	2.3
06C	Storage Piles/Haul Road Emissions	PM	190.4	521.1

39. The permittee shall not cause to be discharged to the atmosphere any emissions which exhibit an opacity greater than 20 percent from SN-03. The opacity shall be measured in accordance with EPA Reference Method 9. [§19.503 of Regulation 19, and 40 CFR Part 52, Subpart E]

40. The permittee shall use water and/or non-hazardous chemical sprays while the dumper is operating at SN-03, except when the ambient temperature is below 40 degrees F or while it is raining. Compliance with this condition shall represent compliance with this source's applicable requirements. [§19.705 of Regulation 19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR 70.6]

41. Weekly observations of the opacity from source SN-06A shall be conducted by personnel familiar with the permittee's visible emissions. The permittee shall maintain personnel trained in (but not necessarily certified in) EPA Reference Method 9. If visible emissions from any of the towers, enclosed conveyors, or silos are detected, the permittee shall take action to identify the cause of the visible emissions, implement corrective action, and document if visible emissions were present following the corrective action. If visible emissions are still present following the corrective action, the permittee shall document that visible emissions do not appear to be in excess of 20% opacity and shall document that visible emissions did not cause a nuisance off-site. The permittee shall maintain records which contain the following items in order to demonstrate compliance with this condition. These records shall be updated weekly, kept on site, and made available to

Department personnel upon request. [§19.503 of Regulation 19, and 40 CFR Part 52, Subpart E]

1. The date and time of the observation.

2. If visible emissions were detected.

3. If visible emissions were detected, the cause of the visible emissions, the corrective action taken, and if the visible emissions were present following the corrective action.

4. If visible emissions were present following the corrective action, document that the visible emissions do not appear to be in excess of 20% opacity and document that the visible emissions do not cause a nuisance off-site.

5. The name of the person conducting the opacity observations.

42. The permittee shall conduct weekly observations of the opacity for the following source: SN-06B. Weekly observations from source SN-06B shall be conducted by personnel familiar with the permittee's visible emissions. The permittee shall maintain personnel trained in (but not necessarily certified in) EPA Reference Method 9. If visible emissions from stackout, reclaiming, or any of the belts or transfer points are detected, the permittee shall take action to identify the cause of the visible emissions, implement corrective action, and document if visible emissions were present following the corrective action. If visible emissions are still present following the corrective action, the permittee shall document that visible emissions do not cause a nuisance beyond the property boundary. Under normal conditions, off-site opacity less than or equal to 5% shall not be considered a nuisance. The permittee shall maintain records which contain the following items in order to demonstrate compliance with this condition. These records shall be updated weekly, kept on site, and made available to Department personnel upon request. [§18.501 of Regulation 18 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

1. The date and time of the observation.

2. If visible emissions were detected.

3. If visible emissions were detected, the cause of the visible emissions, the corrective action taken, and if the visible emissions were present after the corrective action was taken.

4. If visible emissions were present following the corrective action, document that the visible emissions do not cause a nuisance beyond the property boundary.

5. The name of the person conducting the opacity observations.

43. The permittee shall not operate in a manner such that fugitive emissions from the storage piles, pile operations (such as operation of mobile equipment upon the storage pile), and haul road (SN-06C) would cause a nuisance off-site. Under normal conditions, off-site opacity less than or equal to 5% shall not be considered a nuisance. The permittee shall use water sprays or other techniques as necessary to control fugitive emissions. [§18.501 of Regulation 18 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

44. The VOC content of the dust suppressant chemical foam spray used at SN-03 and SN-06A shall not exceed 1.42 percent by weight. [§19.705 of Regulation 19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR 70.6]

45. The permittee shall maintain Material Safety Data Sheets which demonstrate compliance with Specific Condition # 44. [§19.705 of Regulation 19 and 40 CFR Part 52, Subpart E]

46. The dust suppressant chemical foam spray used at SN-03 and SN-06A shall not contain any hazardous air pollutants. [§18.1004 of Regulation 18 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

47. The permittee shall maintain Material Safety Data Sheets which demonstrate compliance with Specific Condition # 46. [§18.1004 of Regulation 18 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

48. Usage of the dust suppressant chemical foam spray at SN-03 and SN-06A shall not exceed 300,000 pounds per consecutive 12 month period. [§19.705 of Regulation 19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR 70.6]

49. The permittee shall maintain monthly records which demonstrate compliance with Specific Condition # 48. These records shall be updated no later than the last day of the month following the month to which the records pertain. Twelve month rolling totals and each individual month's data shall be kept on site, and shall be made available to Department personnel upon request. The twelve month rolling totals and each individual month's data shall be submitted in accordance with General Provision #7. [§19.705 of Regulation 19 and 40 CFR Part 52, Subpart E]

50. The permittee shall comply with the maintenance plan submitted to the Department for the rotary car dumper. The requirements shall include, but are not limited to, the inspection of the spray nozzles for pluggage. [A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

51. The permittee shall not operate the following emission sources: M12 Dead Storage Hopper 4A, M13 Dead Storage Hopper 3A, and M14 Dead Storage Hopper 2A. [A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

52. The permittee shall use the foam sprays while the dumper (SN-03) is in operation except when the ambient temperature is below 40 degrees F or while it is raining. [§19.303 of Regulation 19 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

53. The fly ash trucks hauling ash to the on-site landfill shall not exceed 19,440 vehicle miles traveled per consecutive twelve (12) month period on paved roads and 9,720 vehicle miles traveled per consecutive twelve (12) month period on unpaved roads. [§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]

54. The permittee shall maintain monthly records to demonstrate compliance with Specific Condition # 53. Compliance shall be demonstrated by recording the tons of fly ash disposed of in the on-site landfill and calculating the mileage based on the following calculations:

$$\text{Monthly Total Paved Miles Traveled} = \left(\frac{\text{Monthly tons disposed}}{\text{26 tons per round trip}}\right) \times \left(\text{"Miles Paved" per round trip}\right)$$

$$\text{Monthly Total Unpaved Miles Traveled} = \left(\frac{\text{Monthly tons disposed}}{\text{26 tons per round trip}}\right) \times \left(\text{"Miles Unpaved" per round trip}\right)$$

The round trip mileage to the on-site landfill will be checked annually to determine the number of miles on paved and unpaved road. This check will be completed prior to the end of the first quarter of the year. The results will be recorded and used in the calculation for the remainder of the year unless an additional check is performed. The total miles traveled records shall be updated no later than the last day of the month following the month which the records represent. The records shall be kept on site, and shall be provided to Department personnel upon request. A twelve month rolling total and each individual month's data shall be submitted in accordance with General Provision #7. [§19.705 of Regulation 19, and 40 CFR Part 52, Subpart E]

55. The permittee shall not operate the three Coal Yard Dozers more than a combined 12,000 hours per consecutive twelve (12) month period, and the water wagon shall not exceed 4,000 hours per consecutive twelve (12) month period. Hours of operation do not include time spent idling while stationary. [§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]

56. The permittee shall maintain monthly records to demonstrate compliance with Specific Condition # 55. These records shall be updated no later than the last day of the month following the month which the records represent. The records shall be kept on site, and shall be provided to Department personnel upon request. A twelve month rolling total and each individual month's data shall be submitted in accordance with General Provision #7. [§19.705 of Regulation 19, and 40 CFR Part 52, Subpart E]

57. The cat scraper shall not exceed 1,500 hours of operation per consecutive twelve (12) month period. Hours of operation do not include time spent idling while stationary. [§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]

58. The permittee shall maintain monthly records to demonstrate compliance with Specific Condition # 57. These records shall be updated no later than the last day of the month following the month which the records represent. The records shall be kept on site, and shall be provided to Department personnel upon request. A twelve month rolling total and each individual month's data shall be submitted in accordance with General Provision #7. [§19.705 of Regulation 19, and 40 CFR Part 52, Subpart E]

SN-04
Fly Ash Silos (2) with fabric filters

Source Description

The White Bluff Steam Electric Station is equipped with two (2) fly ash silos. Particulate emissions from the silos are controlled by fabric filters, SN-04, with a control efficiency of 99.9% for PM and 99.8% for PM_{10}. Emissions are regulated under the State Implementation Plan, (SIP), Regulation 19.

Specific Conditions

59. The permittee shall not exceed the emission rates set forth in the following table. [Regulation 19, §19.501 et seq. and 40 CFR Part 52, Subpart E]

SN	Description	Pollutant	lb/hr	tpy
04 (M30-M31)	Fly Ash Silo with Fabric Filters	PM_{10}	0.1	0.1

60. The permittee shall not exceed the emission rates set forth in the following table. [Regulation 18, §18.801, and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

SN	Description	Pollutant	lb/hr	tpy
04 (M30-M31)	Fly Ash Silo with Fabric Filters	PM	4.0	17.6

61. The permittee shall not cause to be discharged to the atmosphere any emissions which exhibit an opacity greater than 20 percent. The opacity shall be measured in accordance with EPA Reference Method 9. [§19.503 of Regulation 19, and 40 CFR Part 52, Subpart E]

62. Plant personnel will perform a daily visual check, during daylight hours, to ensure the baghouse is functioning properly. Observations of the opacity from source SN-04 shall be conducted by personnel familiar with the permittee's visible emissions. These observations of opacity shall be conducted weekly and whenever visible emissions are detected during the daily visual checks. The permittee shall maintain personnel trained in (but not necessarily certified in) EPA Reference Method 9. If visible emissions are detected, the permittee shall identify the cause of the visible emissions and implement corrective action. The permittee shall maintain records which contain the following items in order to demonstrate compliance with this condition. These records shall be updated daily, kept on site, and made available to Department personnel upon request.

The records shall be submitted to the Department in accordance with General Provision #7. [§19.705 of Regulation 19; 40 CFR Part 52, Subpart E; and 40 CFR Part 64]

a. The date and time of the opacity observation and/or visual check.

b. If any visible emissions were detected.

c. If any visible emissions were detected, the permittee shall document the opacity, the cause of the visible emissions, the corrective action taken, any necessary repairs, and if any visible emissions were detected following the repairs.

d. The name of the person conducting the opacity observation and/or visual check.

63. The permittee shall comply with the maintenance plan submitted to the Department for the fly ash silos (See Appendix C). Requirements include but are not limited to the following: [A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

a. Check air leaks on pulsation system;

b. Check air operated valves;

c. Check piping and supports;

d. Check air cylinders;

e. Check baghouse doors and seals;

f. Check diffuser blower bearings for heat and vibration;

g. Check bags;

h. Check blower case for excessive heat buildup; and

i. Check inlet filter and change as needed.

64. The permittee shall conduct semi-annual maintenance inspections on the baghouses at SN-04. These inspections shall include checking all of the requirements listed in Specific Condition # 63. The permittee shall maintain a record of these inspections. This record 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 40 CFR Part 64]

SN-07
Fuel Oil Storage Tank

Source Description

No. 2 Fuel Oil is stored in a storage tank (SN-07) on site. The tank has a capacity of 3,360,000 gallons or 80,000 barrels. The tank is cylindrical with a fixed roof. Emissions are regulated under the State Implementation Plan (SIP), Regulation 19.

Specific Conditions

65. The permittee shall not exceed the emission rates set forth in the following table. [Regulation 19, §19.501 et seq. and 40 CFR Part 52, Subpart E]

SN	Description	Pollutant	lb/hr	tpy
07	Fuel Oil Tank	VOC	0.4	1.6

66. The permittee shall not exceed the annual throughput limit of 112,000,000 gallons of No. 2 Fuel Oil at SN-07 during any consecutive twelve month period. [§19.705 of Regulation 19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR 70.6]

67. The permittee shall maintain records which demonstrate compliance with the limit set forth in Specific Condition # 66. These records may be used by the Department for enforcement purposes. These records shall be updated on a monthly basis, shall be kept on site, and shall be provided to Department personnel upon request. The twelve month rolling total and each individual month's data shall be submitted in accordance with General Provision #7. [§19.705 of Regulation 19, and 40 CFR Part 52, Subpart E]

SN-14 through SN-16
Miscellaneous Storage Tanks

Source Description

The White Bluff Steam Electric Station has numerous storage tanks which store fuel oil and gasoline. SN-14 is a 4,000 gallon capacity No. 2 fuel oil storage tank, SN-15 is a 10,000 gallon No. 2 fuel oil storage tank, and SN-16 is a 4,000 gallon gasoline storage tank. Emissions from the tanks are volatile organic compounds (VOCs) which are regulated under the State Implementation Plan (SIP), Regulation 19.

Specific Conditions

68. The permittee shall not exceed the emission rates set forth in the following table. [Regulation 19, §19.501 et seq. and 40 CFR Part 52, Subpart E]

SN	Description	Pollutant	lb/hr	tpy
14 (T25)	Miscellaneous Storage Tanks	VOC	0.1	0.1
15 (T26)	Miscellaneous Storage Tanks	VOC	0.1	0.1
16 (T32)	Miscellaneous Storage Tanks	VOC	0.1	0.1

69. The permittee shall store only distillate fuel oil No.2 in storage tanks SN-14 and SN-15. Supporting documentation shall be maintained on site to demonstrate compliance with this specific condition. [§19.705 of Regulation 19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR 70.6]

70. The permittee shall store only gasoline in storage tank SN-16. Supporting documentation shall be maintained on site to demonstrate compliance with this specific condition. [§19.705 of Regulation 19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR 70.6]

71. The permittee shall not exceed the annual throughput limit of 16,000 gallons of fuel at SN-14 during any consecutive twelve month period. [§19.705 of Regulation 19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR 70.6]

72. The permittee shall not exceed the annual throughput limit of 180,000 gallons of fuel at SN-15 during any consecutive twelve month period. [§19.705 of Regulation 19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR 70.6]

73. The permittee shall not exceed the annual throughput limit of 16,000 gallons of fuel at SN-16 during any consecutive twelve month period. [§19.705 of Regulation 19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR 70.6]

74. The permittee shall maintain records which demonstrate compliance with the limits set forth in the Specific Conditions # 71, # 72, and # 73. These records may be used by the Department for enforcement purposes. These records shall be updated on a monthly basis, shall be kept on site, and shall be provided to Department personnel upon request. The twelve month rolling total and each individual month's data shall be submitted in accordance with General Provision #7. [§19.705 of Regulation 19, and 40 CFR Part 52, Subpart E]

SN-17 and SN-18
Cooling Towers

Source Description

The White Bluff Steam Electric Station operates two (2) cooling towers for the purpose of waste heat dissipation. The cooling towers obtain makeup water from the Arkansas River and from the capture of site drainage. Emissions from the towers are particulate matter which is regulated under the State Implementation Plan (SIP), Regulation 19.

Specific Conditions

75. The permittee shall not exceed the emission rates set forth in the following table. [Regulation 19, §19.501 et seq. and 40 CFR Part 52, Subpart E]

SN	Description	Pollutant	lb/hr	tpy
17 (X24)	Cooling Tower	PM_{10}	4.6	19.9
18 (X25)	Cooling Tower	PM_{10}	4.6	19.9

76. The permittee shall not exceed the emission rates set forth in the following table. [Regulation 18, §18.801, and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

SN	Description	Pollutant	lb/hr	tpy
17 (X24)	Cooling Tower	PM	4.6	19.9
18 (X25)	Cooling Tower	PM	4.6	19.9

77. The permittee shall not cause to be discharged to the atmosphere from these sources any emissions which exhibit an opacity greater than 20 percent. The opacity shall be measured in accordance with EPA Reference Method 9. [§19.503 of Regulation 19, and 40 CFR Part 52, Subpart E]

78. The permittee shall operate the cooling towers within the design specifications listed in Appendix C. Compliance with the design specifications may demonstrate compliance with the limit specified in Specific Condition # 77. [§19.303 of Regulation 19, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

79. Total dissolved solids shall not exceed 2,800 parts per million. [§19.705 of Regulation 19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR 70.6]

80. The permittee shall monitor the total dissolved solids weekly when the unit is operating to demonstrate compliance with Specific Condition # 79. The permittee shall maintain records that demonstrate compliance with this specific condition. These records shall be updated weekly, kept on site, and made available to Department personnel upon request. [§19.705 of Regulation 19, and 40 CFR Part 52, Subpart E]

81. The circulating water flow for SN-17 and SN-18 shall not exceed 22,125 kgal/hr per tower. [§19.705 of Regulation 19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR 70.6]

82. The permittee shall test the circulating water flow annually to demonstrate compliance with this Specific Condition # 81. The permittee shall maintain records that demonstrate compliance with this specific condition. These records shall be updated annually, kept on site, and made available to Department personnel upon request. [§19.705 of Regulation 19, and 40 CFR Part 52, Subpart E]

SN-19
Coal Barging and Transfer

Source Description

This source consists of six transfer points and a paved/unpaved haul road for hauling the delivered coal via truck from the barge to the on-site coal storage piles. The six transfer points include: the conveyor feeder hopper which is filled from the barge with a large trackhoe, the drop point from the conveyor feed hopper to the first conveyor, the drop point from the first conveyor to the second conveyor, the truck feed hopper when filled via the second conveyor, filling of trucks from the truck feed hopper, and dumping the trucks onto the coal storage piles. The haul road consists of 1.9 miles of paved road and 0.25 miles of unpaved road. The unpaved road will be controlled with chemical suppressant and the paved road will be controlled by wetting and sweeping.

Specific Conditions

83. The permittee shall not exceed the emission rates set forth in the following table. [Regulation 19, §19.501 et seq. and 40 CFR Part 52, Subpart E]

SN	Description	Pollutant	lb/hr	tpy
19	Coal Barging and Transfer	PM_{10}	2.5	6.3

84. The permittee shall not exceed the emission rates set forth in the following table. [Regulation 18, §18.801, and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

SN	Description	Pollutant	lb/hr	tpy
19	Coal Barging and Transfer	PM	9.7	24.9

85. The permittee shall not operate in a manner such that emissions from the haul roads and transfer points (SN-19) would cause a nuisance off-site. Under normal conditions, off-site opacity less than or equal to 5% shall not be considered a nuisance. The permittee shall use water sprays, sweeping, or other techniques as necessary to control emissions. [§18.501 of Regulation 18 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

86. The permittee shall not exceed the annual throughput limit of 2,733,120 tons of coal at SN-19 during any consecutive twelve month period to demonstrate compliance with the annual emissions from the six transfer points. [§19.705 of Regulation 19, A.C.A. §8-3-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR Part 70.6]

87. The permittee shall maintain purchase records which demonstrate compliance with Specific Condition # 86. These records may be used by the Department for enforcement purposes. These records shall be updated on a monthly basis, shall be kept on site, and shall be provided to Department personnel upon request. A twelve month rolling total and each individual month's data shall be submitted in accordance with General Provision #7. [§19.705 of Regulation 19 and 40 CFR Part 52, Subpart E]

88. The silt loading for the paved roads shall not exceed 0.99 g/m^2. Silt testing was conducted on October 5, 2005. Documentation of this test shall be maintained on site. [§19.705 of Regulation 19, A.C.A. §8-3-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR Part 70.6]

89. The silt fraction for the unpaved roads shall not exceed 6.8%. Silt testing was conducted on September 22, 2005. Documentation of this test shall be maintained on site. [§19.705 of Regulation 19, A.C.A. §8-3-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR Part 70.6]

90. The permittee shall not exceed 259,019.4 vehicle miles traveled per consecutive twelve (12) month period on the paved roads at SN-19. The permittee shall not exceed 34,081.5 vehicle miles traveled per consecutive twelve (12) month period on the unpaved roads at SN-19. This condition is necessary to demonstrate compliance with the haul road emission limits. [§19.705 of Regulation 19, A.C.A. §8-3-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR Part 70.6]

91. The permittee shall maintain monthly records to demonstrate compliance with Specific Condition # 90. Compliance shall be demonstrated by recording the round trips traveled by the dust control equipment (water trucks, sweepers, etc.), recording the tons of barge delivered coal unloaded, and calculating the vehicle miles traveled based on the following equations:

$$\text{Monthly Total Paved Miles Traveled} = \left[(\text{Control Equipment Round Trips}) + \left(\frac{\text{Monthly tons unloaded}}{\text{26 tons per round trip}}\right)\right] \times (\text{"Miles Paved" per round trip})$$

$$\text{Monthly Total Unpaved Miles Traveled} = \left[(\text{Control Equipment Round Trips}) + \left(\frac{\text{Monthly tons unloaded}}{\text{26 tons per round trip}}\right)\right] \times (\text{"Miles Unpaved" per round trip})$$

Haul truck weight shall typically be 40 tons loaded and 14 tons unloaded, and generally only full haul trucks shall be used to transport coal. The round trip mileage will be 3.8 miles paved and 0.5 miles unpaved unless an alternate shorter route is implemented. If an alternate route is to be used the round trip mileage will be checked and submitted to the Department. The new mileage can be used in the calculations immediately upon approval by the Department. The total miles traveled records shall be updated no later than the last day of the month following the month which the records represent. The records shall be kept on site, and shall be provided to Department personnel upon request. A twelve month rolling total and each individual month's data shall be submitted in accordance with General Provision #7. Construction of an alternate haul road shall comply with Plantwide Conditions #1 and #2. [§19.705 of Regulation 19 and 40 CFR Part 52, Subpart E]

92. The permittee shall comply with the Haul Road Dust Control Plan for the Barge Unloading Operation (Appendix D). This plan shall be kept on site, and shall be provided to Department personnel upon request. The paved roads shall be controlled by wetting and sweeping. The unpaved roads shall be controlled by the application of a chemical dust suppressant. Control shall be required more frequently as necessary to comply with Specific Condition # 85. [§19.705 of Regulation 19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR 70.6]

93. The chemical suppressant used on the unpaved roads at SN-19 shall not contain any VOCs. The permittee shall maintain the MSDS on site to demonstrate compliance with this specific condition. [§19.705 of Regulation 19, A.C.A. §8-3-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR Part 70.6]

94. The chemical suppressant used on the unpaved roads at SN-19 shall not contain any HAPs. The permittee shall maintain the MSDS on site to demonstrate compliance with this specific condition. [§18.1004 of Regulation 18 and A.C.A. §8-3-203 as referenced by §8-4-304 and §8-4-311]

SN-20
Degreasing Operations

Source Description

This source consists of eight degreasers with a total capacity of 605 gallons. Four (4) of the degreasers are used during outage periods only.

Specific Conditions

95. The permittee shall not exceed the emission rates set forth in the following table. [Regulation 19, §19.501 et seq. and 40 CFR Part 52, Subpart E]

SN	Description	Pollutant	lb/hr	tpy
20	Degreasing Operations	VOC	6.8	10.2

96. The VOC content of the solvent used at SN-20 shall not exceed 6.8 pounds of VOC per gallon of solvent. Material Safety Data Sheets shall be maintained on site to demonstrate compliance with this specific condition. [Regulation 19, §19.705, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR 70.6]

97. The throughput of SN-20 shall not exceed 3,000 gallons of solvent per consecutive twelve-month period. [Regulation 19, §19.705, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR 70.6]

98. Monthly records shall be maintained to demonstrate compliance with Specific Condition # 97. These records shall be updated no later than the last day of the month following the month which the records represent. A twelve month rolling total and each individual month's data shall be maintained on site, made available to Department personnel upon request, and submitted in accordance with General Provision #7. [Regulation 19, §19.705, and 40 CFR Part 52, Subpart E]

SECTION V: COMPLIANCE PLAN AND SCHEDULE

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

SECTION VI: PLANTWIDE CONDITIONS

1. The permittee shall notify the Director in writing within thirty (30) days after commencing construction, completing construction, first placing the equipment and/or facility in operation, and reaching the equipment and/or facility target production rate. [Regulation 19, §19.704, 40 CFR Part 52, Subpart E, and A.C.A. §8-4-203 as referenced by A.C.A. §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) days in advance of such test. The permittee shall submit the compliance test results to the Department within thirty (30) 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 A.C.A. §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 A.C.A. §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 A.C.A. §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 A.C.A. §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)]

Clean Air Interstate Rule (CAIR)

8. 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 No. 19 §19.1401 and 40 CFR Part 52, Subpart E]

Title VI Provisions

9. 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.

10. 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.

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 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.

14. The annual throughput of coal at the facility shall not exceed 9.2 million tons of coal per any consecutive twelve month period. [§19.705 of Regulation 19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR 70.6]

15. The permittee shall maintain records which demonstrate compliance with the limit set in Plantwide Condition # 14. These records shall be updated on a monthly basis, shall be kept on site, shall be provided to Department personnel upon request, and shall be submitted in accordance with General Provision #7. [§19.705 of Regulation 19, and 40 CFR Part 52, Subpart E]

16. The permittee shall submit a compliance certification with state-only enforceable terms and conditions contained in the permit, including emission limitations, standards, or work

practices. This compliance certification shall be submitted annually to the Department. All compliance certifications required by this permit shall include the following:

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.

This compliance certification may be in the same format as, and may be included with, the annual compliance certification required by General Provision 21. [§18.1004 of the Arkansas Air Pollution Control Code (Regulation 18)]

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 December 16, 2002, and correspondence dated October 6, 2003, February 20, 2004, and July 22, 2004.

Description	Category
Microwave Tower Propane Generators (C6a and C6b), Kerosene Fired Space Heaters (C7)	A-1
16 – Storage tanks less than 250 gallons storing organic liquids having a true vapor pressure less than or equal to 3.5 psia. (T6 – T10. T15 – T19. T31, T94, T95, T98, - T100)	A-2
18 – Storage tanks less than 10,000 gallons storing organic liquids having a true vapor pressure less than or equal to 0.5 psia. (T4. T5. T13, T14, T21, T22, T24, T27, T28 – T30, T33, T103, T113 - T116, T120)	A-3
Emissions from laboratory equipment/vents. (T93)	A-5
1 – Emergency Diesel Generator which is not operated on more than 90 days of any 12 consecutive months. (C4)	A-12
1 – Fire Pump Emergency Diesel Generator which is not operated on more than 90 days of any 12 consecutive months. (C5)	A-12
Other activities for which the facility demonstrates that no enforceable permit conditions are necessary to insure compliance with any applicable law or regulation provided that the emissions are less than 5 tpy of any pollutant regulated under this regulation or less than 1 tpy of a single HAP or 2.5 tpy of any combination of HAPs. Unit 1 Turbine Lube Oil Storage Tank (T2), Unit 1 Turbine Lube Oil Reservoir (T3), Unit 2 Lube Oil Storage Tank (T11), Unit 2 Turbine Lube Oil Reservoir (T12), Unit 1 Glycol Air Preheater Expansion Tanks (T51A), Unit 2 Glycol Mixing Tank (T53), Unit 1 Glycol Mixing Tank (T57), Hydrazine Solution Bulk Containers (T59), EHC Fluid Storage (T71), Welding Area – Machine Shop (X10), Welding Area – Bowl Mill Shop (X11), Unleaded Gasoline Dispensing Station (X15), Diesel Dispensing Station (X16), Unit 1 ESP Transformer/Rectifiers (X31), Unit 2 ESP Transformer/Rectifier (X32), Spare ESP Transformer/Rectifier (X33), Transformers (X34), Switchyard Transformers & Oil Circuit Breakers (X35), Aerosol Lubricant (X55), and Aerosol Degreaser (X56), 2 - Economizer Ash Silos (M37 & M38)	A-13
18 - AC Chiller – Pressure Tanks (X36-X42 and X44-X54)	No Emissions

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 §26.701(B) of the Regulations of the Arkansas Operating Air Permit Program (Regulation 26)]

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 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 within thirty (30) days of the end of the reporting period. Although the reports are due every six months, each report shall contain a full year of data. 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 C.F.R. 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 A.C.A. §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 within 30 days following the last day of the anniversary month of the initial Title V permit. 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 A.C.A. §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, §18.102(C-D), Regulation 19, §19.103(D), A.C.A. §8-4-203 as referenced by A.C.A. §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, §18.102(C-D), Regulation 19, §19.103(D), A.C.A. §8-4-203 as referenced by A.C.A. §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, §18.102(C-D), Regulation19, §19.103(D), A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311, and 40 CFR Part 52, Subpart E]

APPENDIX A

40 CFR 60 Subpart D

Standards of Performance for Fossil-Fuel-Fired Steam Generators for Which Construction Is Commenced After August 17, 1971

Pollutant	Units (7 percent oxygen, dry basis)	HMIWI emission limits
Dioxins/furans	nanograms per dry standard cubic meter total dioxins/furans (grains per billion dry standard cubic feet) or nanograms per dry standard cubic meter TEQ (grains per billion dry standard cubic feet).	800 (350) or 15 (6.6).
Hydrogen chloride	Parts per million by volume	3100.
Sulfur dioxide	Parts per million by volume	55.
Nitrogen oxides	Parts per million by volume	250.
Lead	Milligrams per dry standard cubic meter (grains per thousand dry standard cubic feet).	10 (4.4).
Cadmium	Milligrams per dry standard cubic meter (grains per thousand dry standard cubic feet).	4 (1.7).
Mercury	Milligrams per dry standard cubic meter (grains per thousands dry standard cubic feet)	7.5 (3.3).

Subpart D—Standards of Performance for Fossil-Fuel-Fired Steam Generators for Which Construction Is Commenced After August 17, 1971

SOURCE: 72 FR 32717, June 13, 2007, unless otherwise noted.

§ 60.40 Applicability and designation of affected facility.

(a) The affected facilities to which the provisions of this subpart apply are:

(1) Each fossil-fuel-fired steam generating unit of more than 73 megawatts (MW) heat input rate (250 million British thermal units per hour (MMBtu/hr)).

(2) Each fossil-fuel and wood-residue-fired steam generating unit capable of firing fossil fuel at a heat input rate of more than 73 MW (250 MMBtu/hr).

(b) Any change to an existing fossil-fuel-fired steam generating unit to accommodate the use of combustible materials, other than fossil fuels as defined in this subpart, shall not bring that unit under the applicability of this subpart.

(c) Except as provided in paragraph (d) of this section, any facility under paragraph (a) of this section that commenced construction or modification after August 17, 1971, is subject to the requirements of this subpart.

(d) The requirements of §§ 60.44 (a)(4), (a)(5), (b) and (d), and 60.45(f)(4)(vi) are applicable to lignite-fired steam generating units that commenced construction or modification after December 22, 1976.

(e) Any facility covered under subpart Da is not covered under this subpart.

§ 60.41 Definitions.

As used in this subpart, all terms not defined herein shall have the meaning given them in the Act, and in subpart A of this part.

Boiler operating day means a 24-hour period between 12 midnight and the following midnight during which any fuel is combusted at any time in the steam-generating unit. It is not necessary for fuel to be combusted the entire 24-hour period.

Coal means all solid fuels classified as anthracite, bituminous, subbituminous, or lignite by ASTM D388 (incorporated by reference, see § 60.17).

Coal refuse means waste-products of coal mining, cleaning, and coal preparation operations (e.g. culm, gob, etc.) containing coal, matrix material, clay, and other organic and inorganic material.

Fossil fuel means natural gas, petroleum, coal, and any form of solid, liquid, or gaseous fuel derived from such materials for the purpose of creating useful heat.

Fossil fuel and wood residue-fired steam generating unit means a furnace or boiler used in the process of burning fossil fuel and wood residue for the purpose of producing steam by heat transfer.

Fossil-fuel-fired steam generating unit means a furnace or boiler used in the process of burning fossil fuel for the purpose of producing steam by heat transfer.

Wood residue means bark, sawdust, slabs, chips, shavings, mill trim, and other wood products derived from wood processing and forest management operations.

§ 60.42 Standard for particulate matter (PM).

(a) On and after the date on which the performance test required to be conducted by § 60.8 is completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any affected facility any gases that:

(1) Contain PM in excess of 43 nanograms per joule (ng/J) heat input (0.10 lb/MMBtu) derived from fossil fuel or fossil fuel and wood residue.

(2) Exhibit greater than 20 percent opacity except for one six minute period per hour of not more than 27 percent opacity.

(b)(1) On or after December 28, 1979, no owner or operator shall cause to be discharged into the atmosphere from the Southwestern Public Service Company's Harrington Station #1, in Amarillo, TX, any gases which exhibit greater than 35 percent opacity, except that a maximum or 42 percent opacity shall be permitted for not more than 6 minutes in any hour.

(2) Interstate Power Company shall not cause to be discharged into the atmosphere from its Lansing Station Unit No. 4 in Lansing, IA, any gases which exhibit greater than 32 percent opacity, except that a maximum of 39 percent opacity shall be permitted for not more than six minutes in any hour.

§ 60.43 Standard for sulfur dioxide (SO_2).

(a) Except as provided under paragraph (d) of this section, on and after the date on which the performance test required to be conducted by § 60.8 is completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any affected facility any gases that contain SO_2 in excess of:

(1) 340 ng/J heat input (0.80 lb/MMBtu) derived from liquid fossil fuel or liquid fossil fuel and wood residue.

(2) 520 ng/J heat input (1.2 lb/MMBtu) derived from solid fossil fuel or solid fossil fuel and wood residue, except as provided in paragraph (e) of this section.

(b) Except as provided under paragraph (d) of this section, when different fossil fuels are burned simultaneously in any combination, the applicable standard (in ng/J) shall be determined by proration using the following formula:

$$PS_{SO_2} = \frac{y\,(340) + z\,(520)}{(y+z)}$$

Where:

PS_{SO_2} = Prorated standard for SO_2 when burning different fuels simultaneously, in ng/J heat input derived from all fossil fuels or from all fossil fuels and wood residue fired;

y = Percentage of total heat input derived from liquid fossil fuel; and

z = Percentage of total heat input derived from solid fossil fuel.

(c) Compliance shall be based on the total heat input from all fossil fuels burned, including gaseous fuels.

(d) As an alternate to meeting the requirements of paragraphs (a) and (b) of this section, an owner or operator can petition the Administrator (in writing) to comply with § 60.43Da(i)(3) of subpart Da of this part or comply with § 60.42b(k) of subpart Db of this part, as applicable to the affected source. If the Administrator grants the petition, the source will from then on (unless the unit is modified or reconstructed in the future) have to comply with the requirements in § 60.43Da(i)(3) of subpart Da of this part or § 60.42b(k) of subpart Db of this part, as applicable to the affected source.

(e) Units 1 and 2 (as defined in appendix G of this part) at the Newton Power Station owned or operated by the Central Illinois Public Service Company will be in compliance with paragraph (a)(2) of this section if Unit 1 and Unit 2 individually comply with paragraph (a)(2) of this section or if the combined emission rate from Units 1 and 2 does not exceed 470 ng/J (1.1 lb/MMBtu) combined heat input to Units 1 and 2.

§ 60.44 Standard for nitrogen oxides (NO_X).

(a) Except as provided under paragraph (e) of this section, on and after the date on which the performance test required to be conducted by § 60.8 is completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any affected facility any gases that contain NO_X, expressed as NO_2 in excess of:

(1) 86 ng/J heat input (0.20 lb/MMBtu) derived from gaseous fossil fuel.

(2) 129 ng/J heat input (0.30 lb/MMBtu) derived from liquid fossil fuel, liquid fossil fuel and wood residue, or gaseous fossil fuel and wood residue.

(3) 300 ng/J heat input (0.70 lb/MMBtu) derived from solid fossil fuel or solid fossil fuel and wood residue (except lignite or a solid fossil fuel containing 25 percent, by weight, or more of coal refuse).

(4) 260 ng/J heat input (0.60 lb MMBtu) derived from lignite or lignite and wood residue (except as provided under paragraph (a)(5) of this section).

(5) 340 ng/J heat input (0.80 lb MMBtu) derived from lignite which is mined in North Dakota, South Dakota, or Montana and which is burned in a cyclone-fired unit.

(b) Except as provided under paragraphs (c), (d), and (e) of this section, when different fossil fuels are burned simultaneously in any combination, the applicable standard (in ng/J) is determined by proration using the following formula:

$$PS_{NO_X} = \frac{w\ (260) + x\ (86) + y\ (130) + z\ (300)}{(w + x + y + z)}$$

Where:

PS_{NOX} = Prorated standard for NO_X when burning different fuels simultaneously, in ng/J heat input derived from all fossil fuels fired or from all fossil fuels and wood residue fired;
w = Percentage of total heat input derived from lignite;
x = Percentage of total heat input derived from gaseous fossil fuel;
y = Percentage of total heat input derived from liquid fossil fuel; and
z = Percentage of total heat input derived from solid fossil fuel (except lignite).

(c) When a fossil fuel containing at least 25 percent, by weight, of coal refuse is burned in combination with gaseous, liquid, or other solid fossil fuel or wood residue, the standard for NO_X does not apply.

(d) Except as provided under paragraph (e) of this section, cyclone-fired units which burn fuels containing at least 25 percent of lignite that is mined in North Dakota, South Dakota, or Montana remain subject to paragraph (a)(5) of this section regardless of the types of fuel combusted in combination with that lignite.

(e) As an alternate to meeting the requirements of paragraphs (a), (b), and (d) of this section, an owner or operator can petition the Administrator (in writing) to comply with § 60.44Da(e)(3) of subpart Da of this part. If the Administrator grants the petition, the source will from then on (unless the unit is modified or reconstructed in the future) have to comply with the requirements in § 60.44Da(e)(3) of subpart Da of this part.

§ 60.45 Emissions and fuel monitoring.

(a) Each owner or operator shall install, calibrate, maintain, and operate continuous emissions monitoring systems (CEMS) for measuring the opacity of emissions, SO_2 emissions, NO_X emissions, and either oxygen (O_2) or carbon dioxide (CO_2) except as provided in paragraph (b) of this section.

(b) Certain of the CEMS requirements under paragraph (a) of this section do not apply to owners or operators under the following conditions:

(1) For a fossil-fuel-fired steam generator that burns only gaseous fossil fuel and that does not use post-combustion technology to reduce emissions of SO_2 or PM, CEMS for measuring the opacity of emissions and SO_2 emissions are not required.

(2) For a fossil-fuel-fired steam generator that does not use a flue gas desulfurization device, a CEMS for

measuring SO_2 emissions is not required if the owner or operator monitors SO_2 emissions by fuel sampling and analysis.

(3) Notwithstanding § 60.13(b), installation of a CEMS for NO_X may be delayed until after the initial performance tests under § 60.8 have been conducted. If the owner or operator demonstrates during the performance test that emissions of NO_X are less than 70 percent of the applicable standards in § 60.44, a CEMS for measuring NO_X emissions is not required. If the initial performance test results show that NO_X emissions are greater than 70 percent of the applicable standard, the owner or operator shall install a CEMS for NO_X within one year after the date of the initial performance tests under § 60.8 and comply with all other applicable monitoring requirements under this part.

(4) If an owner or operator does not install any CEMS for sulfur oxides and NO_X, as provided under paragraphs (b)(1) and (b)(3) or paragraphs (b)(2) and (b)(3) of this section a CEMS for measuring either O_2 or CO_2 is not required.

(5) An owner or operator may petition the Administrator (in writing) to install a PM CEMS as an alternative to the CEMS for monitoring opacity emissions.

(6) A CEMS for measuring the opacity of emissions is not required for a fossil fuel-fired steam generator that does not use post-combustion technology (except a wet scrubber) for reducing PM, SO_2, or carbon monoxide (CO) emissions, burns only gaseous fuels or fuel oils that contain less than or equal to 0.30 weight percent sulfur, and is operated such that emissions of CO to the atmosphere from the affected source are maintained at levels less than or equal to 0.15 lb/MMBtu on a boiler operating day average basis. Owners and operators of affected sources electing to comply with this paragraph must demonstrate compliance according to the procedures specified in paragraphs (b)(6)(i) through (iv) of this section.

(i) You must monitor CO emissions using a CEMS according to the procedures specified in paragraphs (b)(6)(i)(A) through (D) of this section.

(A) The CO CEMS must be installed, certified, maintained, and operated according to the provisions in § 60.58b(i)(3) of subpart Eb of this part.

(B) Each 1-hour CO emissions average is calculated using the data points generated by the CO CEMS expressed in parts per million by volume corrected to 3 percent oxygen (dry basis).

(C) At a minimum, valid 1-hour CO emissions averages must be obtained for at least 90 percent of the operating hours on a 30-day rolling average basis. At least two data points per hour must be used to calculate each 1-hour average.

(D) Quarterly accuracy determinations and daily calibration drift tests for the CO CEMS must be performed in accordance with procedure 1 in appendix F of this part.

(ii) You must calculate the 1-hour average CO emissions levels for each boiler operating day by multiplying the average hourly CO output concentration measured by the CO CEMS times the corresponding average hourly flue gas flow rate and divided by the corresponding average hourly heat input to the affected source. The 24-hour average CO emission level is determined by calculating the arithmetic average of the hourly CO emission levels computed for each boiler operating day.

(iii) You must evaluate the preceding 24-hour average CO emission level each boiler operating day excluding periods of affected source startup, shutdown, or malfunction. If the 24-hour average CO emission level is greater than 0.15 lb/MMBtu, you must initiate investigation of the relevant equipment and control systems within 24 hours of the first discovery of the high emission incident and, take the appropriate corrective action as soon as practicable to adjust control settings or repair equipment to reduce the 24-hour average CO emission level to 0.15 lb/MMBtu or less.

(iv) You must record the CO measurements and calculations performed according to paragraph (b)(6) of this section and any corrective actions taken. The record of corrective action taken must include the date and time during which the 24-hour average CO emission level was greater than 0.15 lb/MMBtu, and the date, time, and description of the corrective action.

(c) For performance evaluations under § 60.13(c) and calibration checks under § 60.13(d), the following procedures shall be used:

(1) Methods 6, 7, and 3B of appendix A of this part, as applicable, shall be used for the performance evaluations of SO_2 and NO_X continuous monitoring systems. Acceptable alternative methods for Methods 6, 7, and 3B of appendix A of this part are given in § 60.46(d).

(2) Sulfur dioxide or nitric oxide, as applicable, shall be used for preparing calibration gas mixtures under Performance Specification 2 of appendix B to this part.

(3) For affected facilities burning fossil fuel(s), the span value for a continuous monitoring system measuring the opacity of emissions shall be 80, 90, or 100 percent. For a continuous monitoring system measuring sulfur oxides or NO_X the span value shall be determined using one of the following procedures:

(i) Except as provided under paragraph (c)(3)(ii) of this section, SO_2 and NO_X span values shall be determined as follows:

Fossil fuel	In parts per million	
	Span value for SO_2	Span value for NO_X
Gas	(1)	500.
Liquid	1,000	500
Solid	1,500	1,000.
Combinations	1,000y + 1,500z	500 (x + y) + 1,000z.

[1] Not applicable.

Where:

x = Fraction of total heat input derived from gaseous fossil fuel;

y = Fraction of total heat input derived from liquid fossil fuel; and

z = Fraction of total heat input derived from solid fossil fuel.

(ii) As an alternative to meeting the requirements of paragraph (c)(3)(i) of this section, the owner or operator of an affected facility may elect to use the SO_2 and NO_X span values determined according to sections 2.1.1 and 2.1.2 in appendix A to part 75 of this chapter.

(4) All span values computed under paragraph (c)(3)(i) of this section for burning combinations of fossil fuels shall be rounded to the nearest 500 ppm. Span values that are computed under paragraph (c)(3)(ii) of this section shall be rounded off according to the applicable procedures in section 2 of appendix A to part 75 of this chapter.

(5) For a fossil-fuel-fired steam generator that simultaneously burns fossil fuel and nonfossil fuel, the span value of all CEMS shall be subject to the Administrator's approval.

(d) [Reserved]

(e) For any CEMS installed under paragraph (a) of this section, the following conversion procedures shall be used to convert the continuous monitoring data into units of the applicable standards (ng/J, lb/MMBtu):

(1) When a CEMS for measuring O_2 is selected, the measurement of the pollutant concentration and O_2 concentration shall each be on a consistent basis (wet or dry). Alternative procedures approved by the Administrator shall be used when measurements are on a wet basis. When measurements are on a dry basis, the following conversion procedure shall be used:

$$E = CF\left(\frac{20.9}{(20.9 - \%O_2)}\right)$$

Where E, C, F, and $\%O_2$ are determined under paragraph (f) of this section.

(2) When a CEMS for measuring CO_2 is selected, the measurement of the pollutant concentration and CO_2 concentration shall each be on a consistent basis (wet or dry) and the following conversion procedure shall be used:

$$E = CF_c\left(\frac{100}{\%CO_2}\right)$$

Where E, C, F_c and $\%CO_2$ are determined under paragraph (f) of this section.

(f) The values used in the equations under paragraphs (e)(1) and (2) of this section are derived as follows:

(1) E = pollutant emissions, ng/J (lb/MMBtu).

(2) C = pollutant concentration, ng/dscm (lb/dscf), determined by multiplying the average concentration (ppm) for each one-hour period by 4.15×10^4 M ng/dscm per ppm (2.59×10^{-9} M lb/dscf per ppm) where M = pollutant molecular weight, g/g-mole (lb/lb-mole). M = 64.07 for SO_2 and 46.01 for NO_X.

(3) $\%O_2$, $\%CO_2$ = O_2 or CO_2 volume (expressed as percent), determined with equipment specified under paragraph (a) of this section.

(4) F, F_c = a factor representing a ratio of the volume of dry flue gases generated to the calorific value of the fuel combusted (F), and a factor representing a ratio of the volume of CO_2 generated to the calorific value of the fuel combusted (F_c), respectively. Values of F and F_c are given as follows:

(i) For anthracite coal as classified according to ASTM D388 (incorporated by reference, see § 60.17), F = 2.723×10^{-17} dscm/J (10,140 dscf/MMBtu) and F_c = 0.532×10^{-17} scm CO_2/J (1,980 scf CO_2/MMBtu).

(ii) For subbituminous and bituminous coal as classified according to ASTM D388 (incorporated by reference, see § 60.17), F = 2.637×10^{-7} dscm/J (9,820 dscf/MMBtu) and F_c = 0.486×10^{-7} scm CO_2/J (1,810 scf CO_2/MMBtu).

(iii) For liquid fossil fuels including crude, residual, and distillate oils, F = 2.476×10^{-7} dscm/J (9,220 dscf/MMBtu) and F_c = 0.384×10^{-7} scm CO_2/J (1,430 scf CO_2/MMBtu).

(iv) For gaseous fossil fuels, F = 2.347×10^{-7} dscm/J (8,740 dscf/MMBtu). For natural gas, propane, and butane fuels, F_c = 0.279×10^{-7} scm CO_2/J (1,040 scf CO_2/MMBtu) for natural gas, 0.322×10^{-7} scm CO_2/J (1,200 scf CO_2/MMBtu) for propane, and 0.338×10^{-7} scm CO_2/J (1,260 scf CO_2/MMBtu) for butane.

(v) For bark F = 2.589×10^{-7} dscm/J (9,640 dscf/MMBtu) and F_c = 0.500×10^{-7} scm CO_2/J (1,840 scf CO_2/MMBtu). For wood residue other than bark F = 2.492×10^{-7} dscm/J (9,280 dscf/MMBtu) and F_c = 0.494×10^{-7} scm CO_2/J (1,860 scf CO_2/MMBtu).

(vi) For lignite coal as classified according to ASTM D388 (incorporated by reference, see § 60.17), F = 2.659×10^{-7} dscm/J (9,900 dscf/MMBtu) and F_c = 0.516×10^{-7} scm CO_2/J (1,920 scf CO_2/MMBtu).

(5) The owner or operator may use the following equation to determine an F factor (dscm/J or dscf/MMBtu) on a dry basis (if it is desired to calculate F on a wet basis, consult the Administrator) or Fc factor (scm CO_2/J, or scf CO_2/MMBtu) on either basis in lieu of the F or F_c factors specified in paragraph (f)(4) of this section:

$$F = 10^{-6} \frac{[227.2\ (\%H) + 95.5\ (\%C) + 35.6\ (\%S) + 8.7\ (\%N) - 28.7\ (\%O)]}{GCV}$$

$$F_c = \frac{2.0 \times 10^{-5} (\%C)}{GCV\ (SI\ units)}$$

$$F = 10^{-6} \frac{[3.64\ (\%H) + 1.53\ (\%C) + 0.57\ (\%S) + 0.14\ (\%N) - 0.46\ (\%O)]}{GCV\ (English\ units)}$$

$$F_c = \frac{20.0\ (\%C)}{GCV\ (SI\ units)}$$

$$F_c = \frac{321 \times 10^3\ (\%C)}{GCV\ (English\ units)}$$

(i) %H, %C, %S, %N, and %O are content by weight of hydrogen, carbon, sulfur, nitrogen, and O_2 (expressed as percent), respectively, as determined on the same basis as GCV by ultimate analysis of the fuel fired, using ASTM D3178 or D3176 (solid fuels), or computed from results using ASTM D1137, D1945, or D1946 (gaseous fuels) as applicable. (These five methods are incorporated by reference, see § 60.17.)

(ii) GVC is the gross calorific value (kJ/kg, Btu/lb) of the fuel combusted determined by the ASTM test methods D2015 or D5865 for solid fuels and D1826 for gaseous fuels as applicable. (These three methods are incorporated by reference, see § 60.17.)

(iii) For affected facilities which fire both fossil fuels and nonfossil fuels, the F or Fc value shall be subject to the Administrator's approval.

(6) For affected facilities firing combinations of fossil fuels or fossil fuels and wood residue, the F or Fc factors determined by paragraphs (f)(4) or (f)(5) of this section shall be prorated in accordance with the applicable formula as follows:

$$F = \sum_{i=1}^{n} X_i F_i \quad \text{or} \quad F_c = \sum_{i=1}^{n} X_i (F_c)_i$$

Where:

X_i = Fraction of total heat input derived from each type of fuel (e.g. natural gas, bituminous coal, wood residue, etc.);

F_i or $(F_c)_i$ = Applicable F or F_c factor for each fuel type determined in accordance with paragraphs (f)(4) and (f)(5) of this section; and

n = Number of fuels being burned in combination.

(g) Excess emission and monitoring system performance reports shall be submitted to the Administrator semiannually for each six-month period in the calendar year. All semiannual reports shall be postmarked by the 30th day following the end of each six-month period. Each excess emission and MSP report shall include the information required in § 60.7(c). Periods of excess emissions and monitoring systems (MS) downtime that shall be reported are defined as follows:

(1) *Opacity.* Excess emissions are defined as any six-minute period during which the average opacity of emissions exceeds 20 percent opacity, except that one six-minute average per hour of up to 27 percent opacity need not be reported.

(i) For sources subject to the opacity standard of § 60.42(b)(1), excess emissions are defined as any six-minute period during which the average opacity of emissions exceeds 35 percent opacity, except that one six-minute average per hour of up to 42 percent opacity need not be reported.

(ii) For sources subject to the opacity standard of § 60.42(b)(2), excess emissions are defined as any six-minute period during which the average opacity of emissions exceeds 32 percent opacity, except that one six-minute average per hour of up to 39 percent opacity need not be reported.

(2) *Sulfur dioxide.* Excess emissions for affected facilities are defined as:

(i) Any three-hour period during which the average emissions (arithmetic average of three contiguous one-hour periods) of SO_2 as measured by a CEMS exceed the applicable standard under § 60.43, or

(ii) Any 30 operating day period during which the average emissions (arithmetic average of all one-hour periods during the 30 operating days) of SO_2 as measured by a CEMS exceed the applicable standard under § 60.43. Facilities complying with the 30-day SO_2 standard shall use the most current associated SO_2 compliance and monitoring requirements in §§ 60.48Da and 60.49Da of subpart Da of this part.

(3) *Nitrogen oxides.* Excess emissions for affected facilities using a CEMS for measuring NO_X are defined as:

(i) Any three-hour period during which the average emissions (arithmetic average of three contiguous one-hour periods) exceed the applicable standards under § 60.44, or

(ii) Any 30 operating day period during which the average emissions (arithmetic average of all one-hour periods during the 30 operating days) of NO_X as measured by a CEMS exceed the applicable standard under § 60.43. Facilities complying with the 30-day NO_X standard shall use the most current associated NO_X compliance and monitoring requirements in §§ 60.48Da and 60.49Da of subpart Da of this part.

(4) *Particulate matter.* Excess emissions for affected facilities using a CEMS for measuring PM are defined as any boiler operating day period during which the average emissions (arithmetic average of all operating one-hour periods) exceed the applicable standards under § 60.43. Affected facilities using PM CEMS in lieu of a CEMS for monitoring opacity emissions must follow the most current applicable compliance and monitoring provisions in §§ 60.48Da and 60.49Da of subpart Da of this part.

§ 60.46 Test methods and procedures.

(a) In conducting the performance tests required in § 60.8, and subsequent performance tests as requested by the EPA Administrator, the owner or operator shall use as reference methods and procedures the test methods in appendix A of this part or other methods and procedures as specified in this section, except as provided in § 60.8(b). Acceptable alternative methods and procedures are given in paragraph (d) of this section.

(b) The owner or operator shall determine compliance with the PM, SO_2, and NO_X standards in §§ 60.42, 60.43, and 60.44 as follows:

(1) The emission rate (E) of PM, SO_2, or NO_X shall be computed for each run using the following equation:

$$E = CF_d \left(\frac{20.9}{(20.9 - \%O_2)} \right)$$

Where:

E = Emission rate of pollutant, ng/J (lb/million Btu);

C = Concentration of pollutant, ng/dscm (lb/dscf);

$\%O_2$ = O_2 concentration, percent dry basis; and

F_d = Factor as determined from Method 19 of appendix A of this part.

(2) Method 5 of appendix A of this part shall be used to determine the PM concentration (C) at affected facilities without wet flue-gas-desulfurization (FGD) systems and Method 5B of appendix A of this part shall be used to determine the PM concentration (C) after FGD systems.

(i) The sampling time and sample volume for each run shall be at least 60 minutes and 0.85 dscm (30 dscf). The probe and filter holder heating systems in the sampling train shall be set to provide an average gas temperature of 160±14 °C (320±25 °F).

(ii) The emission rate correction factor, integrated or grab sampling and analysis procedure of Method 3B of appendix A of this part shall be used to determine the O_2 concentration ($\%O_2$).

The O_2 sample shall be obtained simultaneously with, and at the same traverse points as, the particulate sample. If the grab sampling procedure is used, the O_2 concentration for the run shall be the arithmetic mean of the sample O_2 concentrations at all traverse points.

(iii) If the particulate run has more than 12 traverse points, the O_2 traverse points may be reduced to 12 provided that Method 1 of appendix A of this part is used to locate the 12 O_2 traverse points.

(3) Method 9 of appendix A of this part and the procedures in § 60.11 shall be used to determine opacity.

(4) Method 6 of appendix A of this part shall be used to determine the SO_2 concentration.

(i) The sampling site shall be the same as that selected for the particulate sample. The sampling location in the duct shall be at the centroid of the cross section or at a point no closer to the walls than 1 m (3.28 ft). The sampling time and sample volume for each sample run shall be at least 20 minutes and 0.020 dscm (0.71 dscf). Two samples shall be taken during a 1-hour period, with each sample taken within a 30-minute interval.

(ii) The emission rate correction factor, integrated sampling and analysis procedure of Method 3B of appendix A of this part shall be used to determine the O_2 concentration ($\%O_2$). The O_2 sample shall be taken simultaneously with, and at the same point as, the SO_2 sample. The SO_2 emission rate shall be computed for each pair of SO_2 and O_2 samples. The SO_2 emission rate (E) for each run shall be the arithmetic mean of the results of the two pairs of samples.

(5) Method 7 of appendix A of this part shall be used to determine the NO_X concentration.

(i) The sampling site and location shall be the same as for the SO_2 sample. Each run shall consist of four grab samples, with each sample taken at about 15-minute intervals.

(ii) For each NO_X sample, the emission rate correction factor, grab sampling and analysis procedure of Method 3B of appendix A of this part shall be used to determine the O_2 concentration ($\%O_2$). The sample shall be taken simultaneously with, and at the same point as, the NO_X sample.

(iii) The NO_X emission rate shall be computed for each pair of NO_X and O_2 samples. The NO_X emission rate (E) for each run shall be the arithmetic mean of the results of the four pairs of samples.

(c) When combinations of fossil fuels or fossil fuel and wood residue are fired, the owner or operator (in order to compute the prorated standard as shown in §§ 60.43(b) and 60.44(b)) shall determine the percentage (w, x, y, or z) of the total heat input derived from each type of fuel as follows:

(1) The heat input rate of each fuel shall be determined by multiplying the gross calorific value of each fuel fired by the rate of each fuel burned.

(2) ASTM Methods D2015, or D5865 (solid fuels), D240 (liquid fuels), or D1826 (gaseous fuels) (all of these methods are incorporated by reference, see § 60.17) shall be used to determine the gross calorific values of the fuels. The method used to determine the calorific value of wood residue must be approved by the Administrator.

(3) Suitable methods shall be used to determine the rate of each fuel burned during each test period, and a material balance over the steam generating system shall be used to confirm the rate.

(d) The owner or operator may use the following as alternatives to the reference methods and procedures in this section or in other sections as specified:

(1) The emission rate (E) of PM, SO_2 and NO_X may be determined by using the Fc factor, provided that the following procedure is used:

(i) The emission rate (E) shall be computed using the following equation:

$$E = CF_c\left(\frac{100}{\%CO_2}\right)$$

Where:

E = Emission rate of pollutant, ng/J (lb/MMBtu);

C = Concentration of pollutant, ng/dscm (lb/dscf);

$\%CO_2$ = CO_2 concentration, percent dry basis; and

F_c = Factor as determined in appropriate sections of Method 19 of appendix A of this part.

(ii) If and only if the average Fc factor in Method 19 of appendix A of this part is used to calculate E and either E is from 0.97 to 1.00 of the emission standard or the relative accuracy of a continuous emission monitoring system is from 17 to 20 percent, then three runs of Method 3B of appendix A of this part shall be used to determine the O_2 and CO_2 concentration according to the procedures in paragraph (b)(2)(ii), (4)(ii), or (5)(ii) of this section. Then if F_o (average of three runs), as calculated from the equation in Method 3B of appendix A of this part, is more than ±3 percent than the average F_o value, as determined from the average values of F_d and F_c in Method 19 of appendix A of this part, *i.e.*, $F_{oa} = 0.209 (F_{da}/F_{ca})$, then the following procedure shall be followed:

(A) When F_o is less than 0.97 F_{oa}, then E shall be increased by that proportion under 0.97 F_{oa}, *e.g.*, if F_o is 0.95 F_{oa}, E shall be increased by 2 percent. This recalculated value shall be used to determine compliance with the emission standard.

(B) When F_o is less than 0.97 F_{oa} and when the average difference (d) between the continuous monitor minus the reference methods is negative, then E shall be increased by that proportion under 0.97 F_{oa}, *e.g.*, if F_o is 0.95 F_{oa}, E shall be increased by 2 percent. This recalculated value shall be used to determine compliance with the relative accuracy specification.

(C) When F_o is greater than 1.03 F_{oa} and when the average difference d is positive, then E shall be decreased by that proportion over 1.03 F_{oa}, *e.g.*, if F_o is 1.05 F_{oa}, E shall be decreased by 2 percent. This recalculated value shall be used to determine compliance with the relative accuracy specification.

(2) For Method 5 or 5B of appendix A of this part, Method 17 of appendix A of this part may be used at facilities with or without wet FGD systems if the stack gas temperature at the sampling location does not exceed an average temperature of 16 0 °C (320 °F). The procedures of sections 2.1 and 2.3 of Method 5B of appendix A of this part may be used with Method 17 of appendix A of this part only if it is used after wet FGD systems. Method 17 of appendix A of this part shall not be used after wet FGD systems if the effluent gas is saturated or laden with water droplets.

(3) Particulate matter and SO_2 may be determined simultaneously with the Method 5 of appendix A of this part train provided that the following changes are made:

(i) The filter and impinger apparatus in sections 2.1.5 and 2.1.6 of Method 8 of appendix A of this part is used in place of the condenser (section 2.1.7) of Method 5 of appendix A of this part.

(ii) All applicable procedures in Method 8 of appendix A of this part for the determination of SO_2 (including moisture) are used:

(4) For Method 6 of appendix A of this part, Method 6C of appendix A of this part may be used. Method 6A of appendix A of this part may also be used whenever Methods 6 and 3B of appendix A of this part data are specified to determine the SO_2 emission rate, under the conditions in paragraph (d)(1) of this section.

(5) For Method 7 of appendix A of this part, Method 7A, 7C, 7D, or 7E of appendix A of this part may be used. If Method 7C, 7D, or 7E of appendix A of this part is used, the sampling time for each run shall be at least 1 hour and the integrated sampling approach shall be used to determine the O_2 concentration (%O_2) for the emission rate correction factor.

(6) For Method 3 of appendix A of this part, Method 3A or 3B of appendix A of this part may be used.

(7) For Method 3B of appendix A of this part, Method 3A of appendix A of this part may be used.

Subpart Da—Standards of Performance for Electric Utility Steam Generating Units for Which Construction is Commenced After September 18, 1978

SOURCE: 72 FR 32722, June 13, 2007, unless otherwise noted.

§ 60.40Da Applicability and designation of affected facility.

(a) The affected facility to which this subpart applies is each electric utility steam generating unit:

APPENDIX B

Continuous Emission Monitoring Systems Conditions

Arkansas Department of Environmental Quality

CONTINUOUS EMISSION MONITORING SYSTEMS CONDITIONS

Revised August 2004

PREAMBLE

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

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

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

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

- All CEMS/COMS shall comply with Section III, NOTIFICATION AND RECORDKEEPING.

SECTION I

DEFINITIONS

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

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

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

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

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

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

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

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

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

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

SECTION II

MONITORING REQUIREMENTS

A. For new sources, the installation date for the CEMS/COMS shall be no later than thirty (30) days from the date of start-up of the source.

B. For existing sources, the installation date for the CEMS/COMS shall be no later than sixty (60) days from the issuance of the permit unless the permit requires a specific date.

C. Within sixty (60) days of installation of a CEMS/COMS, a performance specification test (PST) must be completed. PST's are defined in 40 CFR, Part 60, Appendix B, PS 1-9. The Department may accept alternate PST's for pollutants not covered by Appendix B on a case-by-case basis. Alternate PST's shall be approved, in writing, by the ADEQ CEM Coordinator prior to testing.

D. Each CEMS/COMS shall have, as a minimum, a daily zero-span check. The zero-span shall be adjusted whenever the 24-hour zero or 24-hour span drift exceeds two times the limits in the applicable performance specification in 40 CFR, Part 60, Appendix B. Before any adjustments are made to either the zero or span drifts measured at the 24-hour interval the excess zero and span drifts measured must be quantified and recorded.

E. All CEMS/COMS shall be in continuous operation and shall meet minimum frequency of operation requirements of 95% up-time for each quarter for each pollutant measured. Percent of monitor down-time is calculated by dividing the total minutes the monitor is not in operation by the total time in the calendar quarter and multiplying by one hundred. Failure to maintain operation time shall constitute a violation of the CEMS conditions.

F. Percent of excess emissions are calculated by dividing the total minutes of excess emissions by the total time the source operated and multiplying by one hundred. Failure to maintain compliance may constitute a violation of the CEMS conditions.

G. All CEMS measuring emissions shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive fifteen minute period unless more cycles are required by the permit. For each CEMS, one-hour averages shall be computed from four or more data points equally spaced over each one hour period unless more data points are required by the permit.

H. All COMS shall complete a minimum of one cycle of sampling and analyzing for each successive 10-second period and one cycle of data recording for each successive 6-minute period.

I. When the pollutant from a single affected facility is released through more than one point, a CEMS/COMS shall be installed on each point unless installation of fewer systems is approved, in writing, by the ADEQ CEM Coordinator. When more than one CEM/COM is used to monitor emissions from one affected facility the owner or operator shall report the results as required from each CEMS/COMS.

SECTION III

NOTIFICATION AND RECORD KEEPING

A. When requested to do so by an owner or operator, the ADEQ CEM Coordinator will review plans for installation or modification for the purpose of providing technical advice to the owner or operator.

B. Each facility which operates a CEMS/COMS shall notify the ADEQ CEM Coordinator of the date for which the demonstration of the CEMS/COMS performance will commence (i.e. PST, RATA, RAA, CGA). Notification shall be received in writing no less than 15 days prior to testing. Performance test results shall be submitted to the Department within thirty days after completion of testing.

C. Each facility which operates a CEMS/COMS shall maintain records of the occurrence and duration of start up/shut down, cleaning/soot blowing, process problems, fuel problems, or other malfunction in the operation of the affected facility which causes excess emissions. This includes any malfunction of the air pollution control equipment or any period during which a continuous monitoring device/system is inoperative.

D. Except for Part 75 CEMs, each facility required to install a CEMS/COMS shall submit an excess emission and monitoring system performance report to the Department (Attention: Air Division, CEM Coordinator) at least quarterly, unless more frequent submittals are warranted to assess the compliance status of the facility. Quarterly reports shall be postmarked no later than the 30th day of the month following the end of each calendar quarter. Part 75 CEMs shall submit this information semi-annually and as part of Title V six (6) month reporting requirement if the facility is a Title V facility.

E. All excess emissions shall be reported in terms of the applicable standard. Each report shall be submitted on ADEQ Quarterly Excess Emission Report Forms. Alternate forms may be used with prior written approval from the Department.

F. Each facility which operates a CEMS/COMS must maintain on site a file of CEMS/COMS data including all raw data, corrected and adjusted, repair logs, calibration checks, adjustments, and test audits. This file must be retained for a period of at least five years, and is required to be maintained in such a condition that it can easily be audited by an inspector.

G. Except for Part 75 CEMs, quarterly reports shall be used by the Department to determine compliance with the permit. For Part 75 CEMs, the semi-annual report shall be used.

SECTION IV

QUALITY ASSURANCE/QUALITY CONTROL

A. For each CEMS/COMS a Quality Assurance/Quality Control (QA/QC) plan shall be submitted to the Department (Attn.: Air Division, CEM Coordinator). CEMS quality assurance procedures are defined in 40 CFR, Part 60, Appendix F. This plan shall be submitted within 180 days of the CEMS/COMS installation. A QA/QC plan shall consist of procedure and practices which assures acceptable level of monitor data accuracy, precision, representativeness, and availability.

B. The submitted QA/QC plan for each CEMS/COMS shall not be considered as accepted until the facility receives a written notification of acceptance from the Department.

C. Facilities responsible for one, or more, CEMS/COMS used for compliance monitoring shall meet these minimum requirements and are encouraged to develop and implement a more extensive QA/QC program, or to continue such programs where they already exist. Each QA/QC program must include written procedures which should describe in detail, complete, step-by-step procedures and operations for each of the following activities:

1. Calibration of CEMS/COMS
    a. Daily calibrations (including the approximate time(s) that the daily zero and span drifts will be checked and the time required to perform these checks and return to stable operation)
2. Calibration drift determination and adjustment of CEMS/COMS
    a. Out-of-control period determination
    b. Steps of corrective action
3. Preventive maintenance of CEMS/COMS
    a. CEMS/COMS information
        1) Manufacture
        2) Model number
        3) Serial number
    b. Scheduled activities (check list)
    c. Spare part inventory
4. Data recording, calculations, and reporting
5. Accuracy audit procedures including sampling and analysis methods
6. Program of corrective action for malfunctioning CEMS/COMS

D. A Relative Accuracy Test Audit (RATA), shall be conducted at least once every four calendar quarters. A Relative Accuracy Audit (RAA), or a Cylinder Gas Audit (CGA), may be conducted in the other three quarters but in no more than three quarters in succession. The RATA should be conducted in accordance with the applicable test procedure in 40 CFR Part 60 Appendix A and calculated in accordance with the applicable performance specification in 40 CFR Part 60 Appendix B. CGA's and RAA's should be conducted and the data calculated in accordance with the procedures outlined on 40 CFR Part 60 Appendix F.

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

E. Criteria for excessive audit inaccuracy.

RATA

All Pollutants except Carbon Monoxide	> 20% Relative Accuracy
Carbon Monoxide	> 10% Relative Accuracy
All Pollutants except Carbon Monoxide	> 10% of the Applicable Standard
Carbon Monoxide	> 5% of the Applicable Standard
Diluent (O_2 & CO_2)	> 1.0 % O2 or CO2
Flow	> 20% Relative Accuracy

CGA

Pollutant	> 15% of average audit value or 5 ppm difference
Diluent (O_2 & CO_2)	> 15% of average audit value or 5 ppm difference

RAA

Pollutant	> 15% of the three run average or > 7.5 % of the applicable standard
Diluent (O_2 & CO_2)	> 15% of the three run average or > 7.5 % of the applicable standard

F. If either the zero or span drift results exceed two times the applicable drift specification in 40 CFR, Part 60, Appendix B for five consecutive, daily periods, the CEMS is out-of-control. If either the zero or span drift results exceed four times the applicable drift specification in Appendix B during a calibration drift check, the CEMS is out-of-control. If the CEMS exceeds the audit inaccuracies listed above, the CEMS is out-of-control. If a CEMS is out-of-control, the data from that out-of-control period is not counted towards meeting the minimum data availability as required and described in the applicable subpart. The end of the out-of-control period is the time corresponding to the completion of the successful daily zero or span drift or completion of the successful CGA, RAA or RATA.

G. A back-up monitor may be placed on an emission source to minimize monitor downtime. This back-up CEMS is subject to the same QA/QC procedure and practices as the primary CEMS. The back-up CEMS shall be certified by a PST. Daily zero-span checks must be performed and recorded in accordance with standard practices. When the primary CEMS goes down, the back-up CEMS may then be engaged to sample, analyze and record the emission source pollutant until repairs are made and the primary unit is placed back in service. Records must be maintained on site when the back-up CEMS is placed in service, these records shall include at a minimum the reason the primary CEMS is out of service, the date and time the primary CEMS was out of service and the date and time the primary CEMS was placed back in service.

APPENDIX C
Maintenance Plan for SN-04
and
Design Specifications for SN-17 and SN-18

White Bluff Fly Ash Silo Baghouse Maintenance Plan

Preventative maintenance conducted as scheduled in
AIM, Maintenance Management System.

PM Check sheets are associated with each individual PM, not
Fly ash Silo baghouse system as a whole

1. Check/Adjust Fan, Blowback Exh Baghouse Filter

2. Check/Adjust Blowback Baghouse Filter

3. Check/Adjust Fan, Exh. Baghouse Filter

4. Check/Adjust Filter, Baghouse
    a. Check for air leaks on pulsation system.
    b. Check operation of air operated valves.
    c. Check piping and supports.
    d. Check air cylinders.
    e. Check bag house doors and seals.
    f. Check diffuser blower bearings for heat, vibration, and lubrication leaks.
    g. Check bags and change as needed.
    h. Check blower for excessive heat buildup.
    i. Check inlet filter and change as needed.

5. Check/Adjust WS Dust Baghouse

6. Check/Adjust Traveler Baghouse Filter

7. Check/Adjust Chute, Telescopic, East, West Fly Ash Silo

8. Check/Adjust Fly Ash Diffuser Bower

NATURAL DRAFT COOLING TOWER

OPERATING AND MAINTENANCE INSTRUCTIONS

ARKANSAS POWER AND LIGHT

White Bluff STEAM ELECTRIC STATION

UNITS #1 AND #2

RESEARCH-COTTRELL, INC.

HAMON COOLING TOWER DIVISION

P.O. BOX 1500

SOMERVILLE, NEW JERSEY 08876

SECTION 1

GENERAL DESCRIPTION

1.1 Description of the Tower

1.1.1 Introduction

Units No. 1 and 2 of the Arkansas Power and Light White Bluff Steam Electric Station are each equipped with a natural draft cooling tower. Each tower is designed according to the counter-flow principle and incorporates asbestos cement fill sheets as the heat transfer surface to assure maximum availability for year-round operation, to minimize maintenance, and to virtually eliminate any necessity for replacement of parts or material.

Each tower consists of five major parts:

1) The basin, to catch and store the cooled water;
2) The fill or heat transfer surface, where the hot water and cooling air come into contact;
3) The distribution system, to distribute the hot water evenly over the fill;
4) The drift eliminator section, to reduce water droplet carry-over;
5) The chimney or veil, to create the draft necessary for tower operation.

Each tower is also equipped with a lightning protection system.

1.1.2 Basin

The cold water basin covers the entire base of the tower and is 314 feet in diameter. It contains approximately 2,900,000 gallons of water when filled to operating level, one foot below the top of the basin wall.

1.1.3 Fill

The fill consists of a variable number of tiers of asbestos cement fill sheets, supported by concrete columns and precast beams.

1.1.4 Distribution System

Warm water enters the tower from the condenser outlet through one concrete pipe that supplies water to three risers in-line. These risers are 114, 102 and 84 inches in diameter and supply water to concrete distribution flumes.

Each flume is fitted with asbestos-cement distribution pipes that distribute the warm water to all sections of the tower fill. Each segment of pipe is fitted with evenly-spaced nozzles made of plastic and fitted with a splashplate. These distribute the water uniformly over the entire fill.

The water leaving the splashplates falls onto the fill sheets, runs down the sheets and then falls to the cold water basin below. The falling wat...

1.1.5 Drift Eliminators

Immediately above the distribution piping network are the drift eliminator waves supported by the concrete structure. The drift eliminators reduce the quantity of water droplets entrained in the air that leave the tower as drift.

1.1.6 Veil

The veil is constructed of reinforced concrete. It is 393 feet high (from the top of the basin wall) and has a minimum wall thickness of 7 inches. The shell is supported by diagonal columns that provide an open air inlet at the base of the tower. The hyperbolic shape of the shell is for economic and structural reasons.

1.1.7 Deicing System

Operational control during normal winter conditions is provided by the deicing system. Deicing is provided by slide gates in two of the risers that can stop the flow of water to the central portion of the tower, thereby increasing the water flow and heat load to the peripheral portions of the tower. In this way, ice formation on the fill is prevented.

1.1.8 Bypass System

A bypass system has been provided to prevent icing of the fill during a freezing weather start-up. When the unit is started up during freezing weather, the warm water flow to the tower fill should be bypassed into the cold water basin. Operation of the bypass is covered in paragraphs 4.3.3 and 4.3.4.

1.2 Principle of Operation

The function of the cooling tower is to cool the water entering the tower at a particular temperature to a lower, specified temperature so that it can be recycled. The tower utilizes cool ambient air in such a way that heat is transferred from the hot water to the cool air through both latent heat transfer and, to a lesser extent, sensible heat transfer.

Hot water evaporates when exposed to cool air. Approximately 1000 BTU of heat per pound of water evaporated is consumed; this heat is taken from the water remaining after evaporation by lowering its temperature. This transfer of latent heat accounts for approximately 75% of the heat transfer that occurs. The rest involves sensible heat exchange. When two masses having different temperatures come into contact, heat is exchanged with the result that their temperatures approach an equilibrium. When warm water contacts cool air in the tower, the air is warmed because it receives sensible heat from the water; the water in turn loses sensible heat and is cooled.

As the air is warmed, it also becomes lighter. The difference in specific weight between the air inside and outside the tower causes the natural draft through the tower. The actual transfer of heat from the water to the air is accomplished primarily in the fill, where warm water is passed downward in very thin films through a stream of air moving upward as a result of the natural draft. The fill is designed to maximize the surface area of the water exposed to air, thereby maximizing the amount of evaporation that occurs. The warmed, moist air is then drawn upward through the drift eliminators by the natural draft. The drift eliminators, composed of panels containing wave-shaped passages, are designed to reduce the amount of water leaving the tower as droplets with the warmed air. By causing the air to change direction, the drift eliminators collect many of the water droplets carried by the air. The warm air is then discharged into the atmosphere and the cooled water falls to the basin to be recycled.

1.3 Material List of Non-Concrete Materials

1.3.1 Fill

Fill Sheets	– Asbestos cement, Type II cement.
Fill Spacers	– Polystyrene. Burning Rate 1.4 in./min. by ASTM D-635.

1.3.2 Drift Eliminators

Drift Eliminator Waves	– Asbestos cement, Type II cement.
Drift Eliminator Spacers	– Polyethylene Flame Spread Rating = 1.4"/min. by ASTM D-635
Drift Eliminator Hardware	– Stainless Steel, Type 304

1.3.3 Distribution System

Distribution Piping	- Asbestos-Cement, ASTM C-428 Type I Autoclave Cured or Equal; Not Combustible.
Pipe Hangers	- Stainless Steel, Type 304
Splashplate	- Acetal
Plastic Nozzle Parts	- Polyethylene and Phenylene Oxide, Flame Spread Rating = 1.04"/min. by ASTM D-635.
Plastic Nozzle Hardware	- Stainless Steel, Type 304
End Plugs	- Polystyrene ASTM D-1892 with Neoprene Gaskets and 304 Stainless Steel Hardware and End Pins.

1.3.4 Miscellaneous

Veil Access Door	- Redwood and Stainless Steel Type 304, heavy-duty construction
Windscreen	- Precast concrete frame with fiberglass panels
Access Hatches	- Fiberglass Panel - Robertson Resolite, Fire Snuf 35.

1.4 Operating Specifications - Design Conditions

Heat Load	- 4.36×10^9 BTU/hr
Waterflow	- 310,000 GPM
Range	- 28.1 degrees F
Wet Bulb	- 78 degrees F
Dry Bulb	- 94 degrees F
Cold Water	- 95 degrees F
Approach	- 17 degrees F
Relative Humidity	- 50 percent
Evaporative Loss*	- 2.46 percent
Drift Loss*	- 0.01 percent

See performance curves in Section 6.1 for additional data.

*Percent of circulating waterflow.

SECTION 2

CIRCULATING WATER QUALITY

2.1 Conditions to be Maintained

For continued maximum cooling tower performance and material life, the circulating water should be subjected to regular analysis to ensure that the following conditions exist. In addition to maintaining the integrity of the concrete components of the tower, these conditions will also ensure that there is no detrimental effect to any plastic materials. Any deviations from these conditions should be kept as short as possible.

2.1.1 The Langelier Index should be maintained at zero or at a slightly positive value, and not less than -0.1.

2.1.2 The pH should not be less than 6.5, as determined at 25 degrees C (77 degrees F).

2.1.3 Concentrations of chemicals harmful to cement should be maintained below reasonable levels, with particular attention being paid to the following:

(SO_4)	Not to exceed 1,000 ppm
(S^-)	Not to exceed 2 ppm
(NH_4^+)	Not to exceed 5 ppm

2.1.4 Aromatic hydrocarbons (organic solvents) and petroleum-based substances should not be allowed to circulate in the cooling system because of possible damage to plastic materials.

2.1.5 Algae formation and growth should be adequately controlled.

2.2 Desilting

Significant amounts of mud or suspended matter will normally be sufficiently taken care of through the normal maintenance procedures (Section 3), but abnormal conditions may require the institution of more frequent desilting.

2.3 Make-Up and Blow-Down

2.3.1 The evaporation process results in a loss of water from the closed-circulating water system. At full load, the evaporation loss is approximately 7600 GPM and the drift loss is approximately 30 GPM. When water is removed by the evaporation process, no dissolved solids are removed and, in time, the circulating water will contain more solids than can remain in solution. In order to prevent this condition, which would scale and foul the components of the system, blow-down is required.

2.3.2 The amount of make-up water to be supplied to the cooling tower should be sufficient to compensate for the evaporation losses, the drift losses, plus the calculated blow-down necessary for optimum concentration within the cooling water circuit.

APPENDIX D
Dust Control Plan for SN-19

White Bluff Plant
Barge Unloading Operation
Haul Road Dust Control Plan

This Dust Control Plan is only required when the Barge Unloading Facility is in operation. This Dust Control Plan only applies to the paved and unpaved road sections used to transport coal, by truck, from the barge unloading facility to the coal yard.

Paved Roads:
Paved roads will be mechanically swept once weekly. Wetting agent (water or other non-VOC, non-HAP material) will be applied as needed to keep the paved roads wet. Paved roads shall be kept wet at all times when the temperature is greater than 40^0 F. Wetting will not be required when the temperature is equal to or less than 40^0 F. Sweeping will be required twice weekly when the temperature is equal to or less than 40^0 F for more than three (3) consecutive days.

Unpaved Roads:
A non-VOC, non-HAP chemical dust suppressant will be applied to the unpaved road section as needed to control dust.
A MSDS will be maintained on site to demonstrate a non-VOC, non-HAP dust suppressant is used.

APPENDIX E
Acid Rain Permit Application

United States
Environmental Protection Agency
Acid Rain Program

OMB No. 206-0258

Acid Rain Permit Application

For more information, see instructions and refer to 40 CFR 72.30 and 72.31

This submission is: ☐ New X Revised

Step 1

Identify the source by plant name, State and Oris code.

Plant Name	State	ORIS Code
White Bluff	AR	6009

Step 2

Enter the unit ID# For every affected Unit at the affected Source in column "a." For new units, enter the requested information in columns "c" and "d."

a	b	c	d
Unit ID#	Unit Will Hold Allowances in Accordance with 40 CFR 72.9(c)(1)	New Units Commence Operation Date	New Units Monitor Certification Deadline
1	Yes		
2	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		

Plant Name (from Step 1)
White Bluff

Step 3
Read the standard requirements

Permit Requirements

(1) The designated representative of each affected source and each affected unit at the source shall:

(i) Submit a complete Acid Rain permit application (including a compliance plan) under 40 CFR part 72 in accordance with the deadlines specified in 40 CFR 72.30; and
(ii) Submit in a timely manner any supplemental information that the permitting authority determines is necessary in order to review an Acid Rain permit application and issue or deny an Acid Rain permit;

(2) The owners and operators of each affected source and each affected unit at the source shall:
(i) Operate the unit in compliance with a complete Acid Rain permit application or superseding Acid Rain permit issued by the permitting authority; and
(ii) Have an Acid Rain Permit.

Monitoring Requirements

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

Sulfur Dioxide Requirements

(1) The owners and operators of each source and each affected unit at the source shall:
(i) Hold allowances, as of the allowance transfer deadline, in the unit's compliance sub account (after deductions under 40 CFR 73.34(c)), or in the compliance sub account of another affected unit at the same source to the extent provided in 40 CFR 73.35(b)(3), not less than the total annual emissions of sulfur dioxide for the previous calendar year from the unit; and
(ii) Comply with the applicable Acid Rain emissions limitations for sulfur dioxide.
(2) Each ton of sulfur dioxide emitted in excess of the Acid Rain emissions limitations for sulfur dioxide shall constitute a separate violation of the Act.
(3) An affected unit shall be subject to the requirements under paragraph (1) of the sulfur dioxide requirements as follows:
(i) Starting January 1, 2000, an affected unit under 40 CFR 72.6(a)(2); or
i) Starting on the later of January 1, 2000 or the deadline for monitor certification under 40 CFR part 75, an affected unit under 40 CFR 72.6(a)(3).
(4) Allowances shall be held in, deducted from, or transferred among Allowance Tracking System accounts in accordance with the Acid Rain Program.
(5) An allowance shall not be deducted in order to comply with the requirements under paragraph (1) of the sulfur dioxide requirements prior to the calendar year for which the allowance was allocated.
(6) An allowance allocated by the Administrator under the Acid Rain Program is a limited authorization to emit sulfur dioxide in accordance with the Acid Rain Program. No provision of the Acid Rain Program, the Acid Rain permit application, the Acid Rain permit, or an exemption under 40 CFR 72.7 or 72.8 and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization.
(7) An allowance allocated by the Administrator under the Acid Rain Program does not constitute a property right.

Plant Name (from Step 1)
White Bluff

Step 3, Cont'd.

__Nitrogen Oxides Requirements__ The owners and operators of the source and each attached unit at the source shall comply with the appalicable Acid Rain emissions limitation for nitrogen oxides.

__Excess Emissions Requirements__

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

__Recordkeeping and Reporting Requirements__

(1) Unless otherwise provided, the owners and operators of the source and each affected unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time prior to the end of 5 years, in writing by the Administrator or permitting authority:
(i) The certificate of representation for the designated representative for the source and each affected unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation, in accordance with 40 CFR 72.24; provided that the certificate and documents shall be retained onsite at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation changing the designated representative;
(ii) All emissions monitoring information, in accordance with 40 CFR part 75, provided that to the extent that 40 CFR part 75 provides for a 3-year period for record keeping, the 3-year period shall apply.
(iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the Acid Rain Program; and,
(iv) Copies of all documents used to complete an Acid Rain permit application and any other submission under the Acid Rain Program or to demonstrate compliance with the requirements of the Acid Rain Program.
(2) The designated representative of an affected source and each affected unit at the source shall submit the reports and compliance certifications required under the Acid Rain Program, including those under 40 CFR part 72 subpart I and 40 CFR part 75.

__Liability__

(1) Any person who knowingly violates any requirement or prohibition of the Acid Rain Program, a complete Acid Rain permit application, an Acid Rain permit, or an exemption under 40 CFR 72.7 or 72.8, including any requirement for the payment of any penalty owed to the United States, shall be subject to enforcement pursuant to section 113(c) of the Act.
(2) Any person who knowingly makes a false, material statement in any record submission, or report under the Acid Rain Program shall be subject to criminal enforcement pursuant to section 113(c) of the Act and 18 U.S.C. 1001.
(3) No permit revision shall excuse any violation of the requirements of the Acid Rain Program that occurs prior to the date that the revision takes effect.
(4) Each affected source and each affected unit shall meet the requirements of the Acid Rain Program.

Plant Name (from Step 1)
White Bluff

Step 3, Cont'd.

Liability, Cont'd.

(5) Any provision of Acid Rain Program that applies to an affected source (including a provision applicable to the designated representative of an affected source) shall also apply to the owners and operators of such source and of the affected units at the source.

(6) Any provision of the Acid Rain Program that applies to an affected unit (including a provision applicable to the designated representative of an affected unit) shall also apply to the owners and operators of such unit. Except as provided under 40 CFR 72.44 (Phase II repowering extension plans) and 40 CFR 76.11 (NO_x averaging plans), and except with regard to the requirements applicable to units with a common stack under 40 CFR part 75 (including 40 CFR 75.16, 75.17, and 75.18), the owners and operators and the designated representative of one affected unit shall not be liable for any violation by any other affected unit of which they are not owners or operators or the designated representative and that is located at a source of which they are not owners or operators or the designated representative.

(7) Each violation of a provision of 40 CFR parts 72, 73, 74, 75, 76, 77, and 78 by an affected source or affected unit, or by an owner or operator or designated representative of such source unit, shall be a separate violation of the Act.

Effect on Other Authorities

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

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

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

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

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

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

Step 4

Read the Certification statement, sign, and date

Certification

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

Name Etienne Senac	
Signature Etienne Senac	Date 6-17-04

EPA

United States
Environmental Protection Agency
Acid Rain Program

OMB No. 2060-0258

Phase II NO_X Compliance Plan

For more information, see instructions and refer to 40 CFR 76.9

This submission is: ☐ New ☐ Revised X Renewal

STEP 1

Indicate plant name, State, and ORIS code from NADB, if applicable

Plant Name	State	ORIS Code
White Bluff	AR	6009

STEP 2

Identify each affected Group 1 and Group 2 boiler using the boiler ID# from NADB, if applicable. Indicate boiler type: "CB" for cell burner, "CY" for cyclone, "DBW" for dry bottom wall-fired, "T" for tangentially fired, "V" for vertically fired, and "WB" for wet bottom. Indicate the compliance option selected for each unit.

	ID# 1	ID# 2	ID#	ID#	ID#	ID#
	Type T	Type T	Type	Type	Type	Type
(a) Standard annual average emission limitation of 0.50 lb/mmBtu (for Phase I dry bottom wall-fired boilers)	☐	☐	☐	☐	☐	☐
(b) Standard annual average emission limitation of 0.45 lb/mmBtu (for Phase I tangentially fired boilers)	X	X	☐	☐	☐	☐
(c) EPA-approved early election plan under 40 CFR 76.8 through 12/31/07 (also indicate above emission limit specified in plan)	X	X	☐	☐	☐	☐
(d) Standard annual average emission limitation of 0.46 lb/mmBtu (for Phase II dry bottom wall-fired boilers)	☐	☐	☐	☐	☐	☐
(e) Standard annual average emission limitation of 0.40 lb/mmBtu (for Phase II tangentially fired boilers)	☐	☐	☐	☐	☐	☐
(f) Standard annual average emission limitation of 0.68 lb/mmBtu (for cell burner boilers)	☐	☐	☐	☐	☐	☐
(g) Standard annual average emission limitation of 0.86 lb/mmBtu (for cyclone boilers)	☐	☐	☐	☐	☐	☐
(h) Standard annual average emission limitation of 0.80 lb/mmBtu (for vertically fired boilers)	☐	☐	☐	☐	☐	☐
(i) Standard annual average emission limitation of 0.84 lb/mmBtu (for wet bottom boilers)	☐	☐	☐	☐	☐	☐
(j) NO_x Averaging Plan (include NO_x Averaging form)	☐	☐	☐	☐	☐	☐
(k) Common stack pursuant to 40 CFR 75.17(a)(2)(i)(A) (check the standard emission limitation box above for most stringent limitation applicable to any unit utilizing stack)	☐	☐	☐	☐	☐	☐
(l) Common stack pursuant to 40 CFR 75.17(a)(2)(i)(B) with NO_x Averaging (check the NO_x Averaging Plan box and include NO_x Averaging form)	☐	☐	☐	☐	☐	☐

Plant Name (from Step 1) White Bluff

STEP 2, cont'd.

	ID# 1 / Type T	ID# 2 / Type T	ID# / Type	ID# / Type	ID# / Type	ID# / Type
(m) EPA-approved common stack apportionment method pursuant to 40 CFR 75.17 (a)(2)(i)(C), (a)(2)(iii)(B), or (b)(2)	☐	☐	☐	☐	☐	☐
(n) AEL (include Phase II AEL Demonstration Period, Final AEL Petition, or AEL Renewal form as appropriate)	☐	☐	☐	☐	☐	☐
(o) Petition for AEL demonstration period or final AEL under review by U.S. EPA or demonstration period ongoing	☐	☐	☐	☐	☐	☐
(p) Repowering extension plan approved or under review	☐	☐	☐	☐	☐	☐

STEP 3
Read the standard requirements and certification, enter the name of the designated representative, sign & date.

Standard Requirements

General. This source is subject to the standard requirements in 40 CFR 72.9 (consistent with 40 CFR 76.8(e)(1)(i)). These requirements are listed in this source's Acid Rain Permit.

Special Provisions for Early Election Units

Nitrogen Oxides. A unit that is governed by an approved early election plan shall be subject to an emissions limitation for NO$_x$ as provided under 40 CFR 76.8(a)(2) except as provided under 40 CFR 76.8(e)(3)(iii).
Liability. The owners and operators of a unit governed by an approved early election plan shall be liable for any violation of the plan or 40 CFR 76.8 at that unit. The owners and operators shall be liable, beginning January 1, 2000, for fulfilling the obligations specified in 40 CFR Part 77.
Termination. An approved early election plan shall be in effect only until the earlier of January 1, 2008 or January 1 of the calendar year for which a termination of the plan takes effect. If the designated representative of the unit under an approved early election plan fails to demonstrate compliance with the applicable emissions limitation under 40 CFR 76.5 for any year during the period beginning January 1 of the first year the early election takes effect and ending December 31, 2007, the permitting authority will terminate the plan. The termination will take effect beginning January 1 of the year after the year for which there is a failure to demonstrate compliance, and the designated representative may not submit a new early election plan. The designated representative of the unit under an approved early election plan may terminate the plan any year prior to 2008 but may not submit a new early election plan. In order to terminate the plan, the designated representative must submit a notice under 40 CFR 72.40(d) by January 1 of the year for which the termination is to take effect. If an early election plan is terminated any year prior to 2000, the unit shall meet, beginning January 1, 2000, the applicable emissions limitation for NO$_x$ for Phase II units with Group 1 boilers under 40 CFR 76.7. If an early election plan is terminated on or after 2000, the unit shall meet, beginning on the effective date of the termination, the applicable emissions limitation for NO$_x$ for Phase II units with Group 1 boilers under 40 CFR 76.7.

Certification

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

Name Myra Glover	
Signature Myra Glover	Date 7-12-05

Appendix F
Clean Air Interstate Rule (CAIR) Permit Application

TITLE V PERMIT
SUPPLEMENTAL PACKAGE
CLEAN AIR INTERSTATE RULE PERMIT APPLICATION

AFIN:	35-00110	Date:	4/22/2008

1. UNIT INFORMATION

Enter the Source ID and Description (as identified in your Arkansas Title V Permit).

Source Number	Description
SN-01	Unit 1 Boiler
SN-02	Unit 2 Boiler

2. STANDARD REQUIREMENTS

Read the standard requirements and the certification. Enter the name of the CAIR designated representative, and sign and date. Include the supplemental application along with a completed Arkansas Operating Permit (Major Source) General Information Forms (pages 1-6). The Department will process a modification to the facility's Title V permit to incorporate these CAIR requirements.

NO_x Ozone Season Emission Requirements
§ 96.306 Standard requirements
(a) *Permit requirements.*
(1) The CAIR designated representative of each CAIR NO_X Ozone Season source required to have a title V operating permit and each CAIR NO_X Ozone Season unit required to have a title V operating permit at the source shall:
(i) Submit to the permitting authority a complete CAIR permit application under §96.322 in accordance with the deadlines specified in §96.321(a) and (b); and
(ii) Submit in a timely manner any supplemental information that the permitting authority determines is necessary in order to review a CAIR permit application and issue or deny a CAIR permit.
(2) The owners and operators of each CAIR NO_X Ozone Season source required to have a title V operating permit and each CAIR NO_X Ozone Season unit required to have a title V operating permit at the source shall have a CAIR permit issued by the permitting authority under subpart CCCC of 40 CFR part 96 for the source and operate the source and the unit in compliance with such CAIR permit.
(3) Except as provided in subpart IIII of 40 CFR part 96, the owners and operators of a CAIR NO_X Ozone Season source that is not otherwise required to have a title V operating permit and each CAIR NO_X Ozone Season unit that is not otherwise required to have a title V operating

permit are not required to submit a CAIR permit application, and to have a CAIR permit, under subpart CCCC of 40 CFR part 96 for such CAIR NO_X Ozone Season source and such CAIR NO_X Ozone Season unit.

(b) *Monitoring, reporting, and recordkeeping requirements.*
(1) The owners and operators, and the CAIR designated representative, of each CAIR NO_X Ozone Season source and each CAIR NO_X Ozone Season unit at the source shall comply with the monitoring, reporting, and recordkeeping requirements of subpart HHHH of 40 CFR part 96.
(2) The emissions measurements recorded and reported in accordance with subpart HHHH of 40 CFR part 96 shall be used to determine compliance by each CAIR NO_X Ozone Season source with the CAIR NO_X Ozone Season emissions limitation under paragraph (c) of this §96.306.

(c) *Nitrogen oxides ozone season emission requirements.*
(1) As of the allowance transfer deadline for a control period, the owners and operators of each CAIR NO_X Ozone Season source and each CAIR NO_X Ozone Season unit at the source shall hold, in the source's compliance account, CAIR NO_X Ozone Season allowances available for compliance deductions for the control period under §96.354(a) in an amount not less than the tons of total nitrogen oxides emissions for the control period from all CAIR NO_X Ozone Season units at the source, as determined in accordance with subpart HHHH of this part.
(2) A CAIR NO_X Ozone Season unit shall be subject to the requirements under paragraph (c)(1) of this §96.306 starting on the later of May 1, 2009 or the deadline for meeting the unit's monitor certification requirements under §96.370(b)(1), (2), (3), or (7) and for each control period thereafter.
(3) A CAIR NO_X Ozone Season allowance shall not be deducted, for compliance with the requirements under paragraph (c)(1) of §96.306, for a control period in a calendar year before the year for which the CAIR NO_X Ozone Season allowance was allocated.
(4) CAIR NO_X Ozone Season allowances shall be held in, deducted from, or transferred into or among CAIR NO_X Ozone Season Allowance Tracking System accounts in accordance with subparts, FFFF, GGGG of 40 CFR part 96 and Chapter 14 of the Arkansas Pollution Control and Ecology Commission Regulation 19, Regulations of the Arkansas Plan of Implementation for Air Pollution Control.
(5) A CAIR NO_X Ozone Season allowance is a limited authorization to emit one ton of nitrogen oxides in accordance with the CAIR NO_X Ozone Season Trading Program. No provision of the CAIR NO_X Ozone Season Trading Program, the CAIR permit application, the CAIR permit, or an exemption under §96.305 and no provision of law shall be construed to limit the authority of the State or the United States to terminate or limit such authorization.
(6) A CAIR NO_X Ozone Season allowance does not constitute a property right.
(7) Upon recordation by the Administrator under subpart FFFF, GGGG of this part or Chapter 14 of the Arkansas Pollution Control and Ecology Commission Regulation 19, Regulations of the Arkansas Plan of Implementation for Air Pollution Control, every allocation, transfer, or deduction of a CAIR NO_X Ozone Season allowance to or from a CAIR NO_X Ozone Season source's compliance account is incorporated automatically in any CAIR permit of the source.

(d) *Excess emissions requirements.*

(1) If a CAIR NO_X Ozone Season source emits nitrogen oxides during any control period in excess of the CAIR NO_X Ozone Season emissions limitation, then:
(i) The owners and operators of the source and each CAIR NO_X Ozone Season unit at the source shall surrender the CAIR NO_X Ozone Season allowances required for deduction under §96.354(d)(1) and pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act or applicable State law; and
(ii) Each ton of such excess emissions and each day of such control period shall constitute a separate violation of this subpart, the Clean Air Act, and applicable State law.

(e) *Recordkeeping and reporting requirements.*
(1) Unless otherwise provided, the owners and operators of the CAIR NO_X Ozone Season source and each CAIR NO_X Ozone Season unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time before the end of 5 years, in writing by the permitting authority or the Administrator.
(i) The certificate of representation under §96.313 for the CAIR designated representative for the source and each CAIR NO_X Ozone Season unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation under §96.313 changing the CAIR designated representative.
(ii) All emissions monitoring information, in accordance with subpart HHHH of 40 CFR part 96, provided that to the extent that subpart HHHH of 40 CFR part 96 provides for a 3-year period for recordkeeping, the 3-year period shall apply.
(iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the CAIR NO_X Ozone Season Trading Program.
(iv) Copies of all documents used to complete a CAIR permit application and any other submission under the CAIR NO_X Ozone Season Trading Program or to demonstrate compliance with the requirements of the CAIR NO_X Ozone Season Trading Program.
(2) The CAIR designated representative of a CAIR NO_X Ozone Season source and each CAIR NO_X Ozone Season unit at the source shall submit the reports required under the CAIR NO_X Ozone Season Trading Program, including those under subpart HHHH of 40 CFR part 96.

(f) *Liability.*
(1) Each CAIR NO_X Ozone Season source and each CAIR NO_X Ozone Season unit shall meet the requirements of the CAIR NO_X Ozone Season Trading Program.
(2) Any provision of the CAIR NO_X Ozone Season Trading Program that applies to a CAIR NO_X Ozone Season source or the CAIR designated representative of a CAIR NO_X Ozone Season source shall also apply to the owners and operators of such source and of the CAIR NO_X Ozone Season units at the source.
(3) Any provision of the CAIR NO_X Ozone Season Trading Program that applies to a CAIR NO_X Ozone Season unit or the CAIR designated representative of a CAIR NO_X Ozone Season unit shall also apply to the owners and operators of such unit.

(g) *Effect on other authorities.*

No provision of the CAIR NO_X Ozone Season Trading Program, a CAIR permit application, a CAIR permit, or an exemption under §96.305 shall be construed as exempting or excluding the owners and operators, and the CAIR designated representative, of a CAIR NO_X Ozone Season source or CAIR NO_X Ozone Season unit from compliance with any other provision of the applicable, approved State implementation plan, a federally enforceable permit, or the Clean Air Act.

3. CERTIFICATION

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

CAIR Designated Representative

Myra Glover **Name (Print)**	Myra H. Glover		
Signature	Myra H. Glover	**Date**	4/28/08

CERTIFICATE OF SERVICE

I, Cynthia Hook, hereby certify that a copy of this permit has been mailed by first class mail to Entergy Services, Inc. - White Bluff Plant, 1100 White Bluff Road, Redfield, AR, 72132, on this 12th day of January, 2009.

C Hook

Cynthia Hook, AAII, Air Division