ADEQ

A R K A N S A S
Department of Environmental Quality

December 7, 2007

Kellee Fletcher
Entergy Arkansas, Inc. - Independence Plant
555 Point Ferry Road
Newark, AR 72562

Dear Ms. Fletcher:

The enclosed Permit No. 0449-AOP-R5 is issued pursuant to the Arkansas Operating Permit Program, Regulation # 26.

After considering the facts and requirements of A.C.A. §8-4-101 et seq., and implementing regulations, I have determined that Permit No. 0449-AOP-R5 for the construction, operation and maintenance of an air pollution control system for Entergy Arkansas, Inc. - Independence Plant to be issued and effective on the date specified in the permit, unless a Commission review has been properly requested under §2.1.14 of Regulation No. 8, Arkansas Department of Pollution Control & Ecology Commission's Administrative Procedures, within thirty (30) days after service of this decision.

All persons submitting written comments during this thirty (30) day period, and all other persons entitled to do so, may request an adjudicatory hearing and Commission review on whether the decision of the Director should be reversed or modified. Such a request shall be in the form and manner required by §2.1.14 of Regulation No. 8.

Sincerely,

Mike Bates
Chief, Air Division

RESPONSE TO COMMENTS

Entergy Arkansas, Inc. – Independence
DRAFT PERMIT #0449-AOP-R5
AFIN: 32-00042

On October 18, 2007, 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 Entergy, submitted comments, data, views or arguments on the draft permitting decision. The Department's response to these issues follows.

Issue #1:

The facility identified a typographical error in the footnote associated with Table 7.

Response #1:

The Draft permit's footnote referenced Specific Condition #7, instead of Specific Condition #6. The permit has been updated to reflect this change.

Issue #2:

The facility requested the removal of Specific Condition #41.

Response #2:

On July 30, 2007, the National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters (Boiler MACT) rule was vacated. Since the Boiler MACT rule was vacated, Specific Condition #41 has been removed.

ADEQ
OPERATING
AIR PERMIT

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

Permit #: 0449-AOP-R5

Renewal #1

IS ISSUED TO: Entergy Arkansas, Inc. - Independence

555 Point Ferry Road

Newark, AR 72562

Independence County

AFIN: 32-00042

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:

June 3, 2005 AND June 2, 2010

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

Signed:

Mike Bates
Chief, Air Division

December 7, 2007
Date Modified

Facility: Entergy Arkansas, Inc. - Independence
Permit No.: 0449-AOP-R5
AFIN: 32-00042

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Table of Tables

Table 1 - List of Acronyms

A.C.A.	Arkansas Code Annotated
CFR	Code of Federal Regulations
CO	Carbon Monoxide
CSN	County Serial Number
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
QIP	Quality Improvement Plan
SNAP	Significant New Alternatives Program (SNAP)
SO_2	Sulfur dioxide
SSM	Startup, Shutdown, and Malfunction Plan
Tpy	Ton per year
UTM	Universal Transverse Mercator
VOC	Volatile Organic Compound

Section I: FACILITY INFORMATION

PERMITTEE: Entergy Arkansas, Inc. - Independence

AFIN: 32-00042

PERMIT NUMBER: 0449-AOP-R5

FACILITY ADDRESS: 555 Point Ferry Road
Newark, AR 72562

MAILING ADDRESS: 555 Point Ferry Road
Newark, AR 72562

COUNTY: Independence

CONTACT POSITION: Tracy Johnson

TELEPHONE NUMBER: (501) 377-4033

REVIEWING ENGINEER: Joseph Hurt

UTM North - South (Y): Zone 15 3949.3

UTM East - West (X): Zone 15 644.10

Section II: INTRODUCTION

Summary of Permit Activity

Entergy Arkansas, Inc. - Independence located in Independence, Arkansas is a two-unit electric generating station which generates electric energy for sale. With this modification, Entergy has submitted the language changes necessary to incorporate Bio-diesel into the permit as fuel for SN-01 or SN-02. Entergy has also submitted the necessary calculations to incorporate their sulfuric acid (H_2SO_4) emissions from SN-01 and SN-02. Additionally, Entergy has determined that Scenario 2 – Fuel Oil Firing, PM/PM_{10} emissions from SN-01 and SN-02 would be more accurate if the control efficiency for the ESP was removed since the ESP is not in operation during startup when fuel oil is being used. Revised emissions reflecting this determination were submitted. Also, Entergy requested the increase of the permitted annual throughput for degreasing operations and submitted calculations supporting the increased throughput. The total annual permitted emission rate increases due to this permitting action include: 13.4 tons per year PM, 13.2 tpy PM_{10}, 1.6 tpy VOC, and 102.54 tpy H_2SO_4.

Process Description

The Independence Plant is a two-unit electric generating station which generates electric energy for sale. Electricity is produced by using sub-bituminous or bituminous coal as the primary fuel and No. 2 fuel oil as the start-up fuel in both boilers (SN-01 and SN-02) to produce steam, which is used to drive turbines which turn the electric generators.

Independence Steam Electric Station operates currently as a base-load facility. The facility has two identical coal-fired units (Units 1 and 2) with a total capacity of approximately 1780 megawatts (MW) Gross. Sub-bituminous or bituminous coal is delivered by rail. Each rail car is equipped with rotary couplings which enable the rotary car dumper to grasp one car at a time and empty it without removing the car from the train. The rotary car dumper (SN-03) 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-16 and SN-17) which obtain makeup water from the White 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

Emissions from the plant include sulfur dioxide, nitrogen oxides, particulates, and carbon monoxide. The emission levels for each of these are governed by Federal and State emission and ambient air regulations. In-stack monitoring is designed to meet the requirements of Acid Rain (40 CFR 75) and New Source Performance Standards. Oxides of nitrogen are subject to NSPS and Acid Rain requirements; particulates are subject to NSPS and PSD requirements; sulfur dioxide emissions are subject to PSD, NSPS, and Acid Rain requirements; and carbon monoxide emissions are subject to PSD requirements. Entergy elected to comply with a 0.45 lb/MMBtu annual average for NO_X emissions under the Acid Rain provisions of 40 CFR Part 76. Compliance began in the year 1997 and is determined by the average emission rate at the end of each calendar year.

The following table contains the regulations applicable to this permit.

Table 2 – Regulations

Source No.	Regulation Citations
Plantwide	Arkansas Air Pollution Control Code (Regulation 18)
Plantwide	Regulations of the Arkansas Plan of Implementation for Air Pollution Control (Regulation 19)
Plantwide	Regulations of the Arkansas Operating Air Permit Program (Regulation 26)
SN-01 and SN-02	40 CFR Part 60, Subpart D – *Standards of Performance for Fossil-Fuel-Fired Steam Generators for Which Construction is Commenced After August 17, 1971*
Plantwide	40 CFR Part 61, Subpart M – *National Emissions Standard for Asbestos*
SN-05	40 CFR Part 63, Subpart DDDDD – *National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters*
Plantwide	40 CFR Part 72, Subpart A-D – Permits Regulation (Acid Rain)
Plantwide	40 CFR Part 73, Subpart B – Sulfur Dioxide Allowance System
SN-01 and SN-02	40 CFR Part 75 – Continuous Emission Monitoring
Plantwide	40 CFR Part 76 – Acid Rain Nitrogen Oxide Emission Reduction Program
Plantwide	40 CFR Part 77 – Excess Emissions
Plantwide	40 CFR 52.21 – *Prevention of Significant Deterioration of Air Quality* (PSD)
SN-01, SN-02, and SN-04	40 CFR Part 64 – Compliance Assurance Monitoring
Plantwide	40 CFR Part 82 – Protection of Stratospheric Ozone

Facility: Entergy Arkansas, Inc. - Independence
Permit No.: 0449-AOP-R5
AFIN: 32-00042

The following table is a summary of emissions from the facility. The following table contains cross-references to the pages containing specific conditions and emissions for each source. This table, in itself, is not an enforceable condition of the permit.

Table 3 – Emission Summary

Emission Summary					
			Emission Rates		
Source No.	**Description**	**Pollutant**	**lb/hr**	**tpy**	**Cross Reference Page**
Total Allowable Emissions		PM	1,497.4	6,229.8	N/A
		PM_{10}	1,373.9	5,965.4	
		SO_2	16,287.2	71,338.0	
		VOC	80.8	324.2	
		CO	6,470.7	9,467.0	
		NO_x	12,212.2	53,489.3	
		Lead*	0.7	2.1	
HAPs		Acenaphthene*	0.02	0.02	N/A
		Acenaphthylene*	0.02	0.02	
		Acetaldehyde*	0.60	2.64	
		Acrolein*	0.32	1.34	
		Anthracene*	0.02	0.02	
		Arsenic*	0.45	1.91	
		Benzene*	1.38	5.98	
		Benzyl chloride*	0.74	3.22	
		Beryllium*	0.061	0.243	
		Cadmium*	0.061	0.243	
		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	1260.00	5518.80	

Facility: Entergy Arkansas, Inc. - Independence
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Emission Summary					
			Emission Rates		
Source No.	**Description**	**Pollutant**	**lb/hr**	**tpy**	**Cross Reference Page**
		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**	84.15	368.57	N/A
		H_2SO_4**	23.42	102.54	
SN-01 (C1)	Unit 1 Boiler – Coal Fired	PM	662.0	2,899.6	19
		PM_{10}	662.0	2,899.6	
		SO_2	8,091.0	35,438.6	
		VOC	35.0	153.3	
		CO	3,232.0	4,718.8	
		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	

Emission Summary					
			Emission Rates		
Source No.	**Description**	**Pollutant**	**lb/hr**	**tpy**	**Cross Reference Page**
		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	
		2,3,7,8-TCDD*	0.01	0.01	
		N_2O**	42.00	183.96	
		H_2SO_4**	11.71	51.27	
SN-02 (C2)	Unit 2 Boiler – Coal Fired	PM	662.0	2,899.6	19
		PM_{10}	662.0	2,899.6	
		SO_2	8,091.0	35,438.6	
		VOC	35.0	153.3	

Facility: Entergy Arkansas, Inc. - Independence
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Emission Summary					
			Emission Rates		
Source No.	**Description**	**Pollutant**	**lb/hr**	**tpy**	**Cross Reference Page**
		CO	3,232.0	4,718.8	
		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	
		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	

Facility: Entergy Arkansas, Inc. - Independence
Permit No.: 0449-AOP-R5
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Emission Summary					
			Emission Rates		
Source No.	**Description**	**Pollutant**	**lb/hr**	**tpy**	**Cross Reference Page**
		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**	11.71	51.27	
SN-01 (C1)	Unit 1 Boiler – No. 2 Fuel Oil Fired	PM	24.1	105.6	19
		PM_{10}	16.8	73.6	
		SO_2	573.0	2,509.8	
		VOC	1.9	8.1	
		CO	3,232.0	4,718.8	
		NO_X	175.2	767.4	
		Lead*	0.1	0.4	
		Arsenic*	0.04	0.16	
		Beryllium*	0.03	0.12	
		Cadmium*	0.03	0.12	
		Chromium*	0.03	0.12	
		Formaldehyde*	0.36	1.54	
		Manganese*	0.06	0.23	
		Mercury*	0.03	0.12	
		Nickel*	0.03	0.12	
		POM*	0.03	0.11	
		Selenium*	0.14	0.58	
		N_2O**	0.81	3.52	
		H_2SO_4**	7.61	33.33	
SN-02 (C2)	Unit 2 Boiler – No. 2 Fuel Oil Fired	PM	24.1	105.6	19
		PM_{10}	16.8	73.6	
		SO_2	573.0	2,509.8	
		VOC	1.9	8.1	
		CO	3,232.0	4,718.8	
		NO_X	175.2	767.4	
		Lead*	0.1	0.4	
		Arsenic*	0.04	0.16	
		Beryllium*	0.03	0.12	

Facility: Entergy Arkansas, Inc. - Independence
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Emission Summary					
			Emission Rates		
Source No.	**Description**	**Pollutant**	**lb/hr**	**tpy**	**Cross Reference Page**
		Cadmium*	0.03	0.12	
		Chromium*	0.03	0.12	
		Formaldehyde*	0.36	1.54	
		Manganese*	0.06	0.23	
		Mercury*	0.03	0.12	
		Nickel*	0.03	0.12	
		POM*	0.03	0.11	
		Selenium*	0.14	0.58	
		N_2O**	0.81	3.52	
		H_2SO_4**	7.61	33.33	
SN-03 (M1)	Rail Car Rotary Dumper	PM	16.0	70.1	35
		PM_{10}	0.1	0.1	
SN-03 (M1) and SN-06	Rail Car Rotary Dumper and Handling/ Conveying Emissions	VOC	1.3	2.2	40
SN-04 (M30-31)	Fly Ash Silos(2) with Fabric Filters	PM	4.0	17.6	39
		PM_{10}	0.1	0.1	
SN-05 (C3)	Auxiliary Boiler	PM	4.5	19.4	19
		PM_{10}	4.5	19.4	
		SO_2	105.2	460.8	
		VOC	0.4	1.5	
		CO	6.7	29.4	
		NO_X	32.2	140.9	
		Lead*	0.1	0.1	
		Arsenic*	0.01	0.01	
		Beryllium*	0.001	0.003	
		Cadmium*	0.001	0.003	
		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	

Facility: Entergy Arkansas, Inc. - Independence
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Emission Summary					
			Emission Rates		
Source No.	**Description**	**Pollutant**	**lb/hr**	**tpy**	**Cross Reference Page**
		N_2O**	0.15	0.65	
SN-06A	Handling/ Conveying Emissions	PM PM_{10}	0.6 0.3	2.6 1.3	35
SN-06B	Stacker/Reclaimer Emissions	PM PM_{10}	0.6 0.3	2.3 1.1	35
SN-06C	Storage Pile and Haul Road Emissions	PM PM_{10}	134.5 38.5	261.2 91.7	35
SN-07 (T1)	Fuel Oil Storage Tank	VOC	0.4	1.7	42
SN-12 (T27)	UST Diesel Tank	VOC	0.1	0.1	43
SN-13 (T29)	UST Automotive Unleaded Gasoline Tank	VOC	0.1	0.1	43
SN-14 (T30)	Unleaded Gasoline Tank	Insignificant Activity			
SN-16 (X35)	Cooling Tower #1	PM PM_{10}	5.7 5.7	24.9 24.9	45
SN-17 (X36)	Cooling Tower #2	PM PM_{10}	5.7 5.7	24.9 24.9	45
SN-18	Degreasing Operations	VOC	8.5	10.4	47
SN-19 (X23)	Grit Blaster	PM PM_{10}	1.8 0.7	7.6 2.7	49

* HAPs included in the PM or VOC totals.
**Air Contaminants such as ammonia, acetone, and certain halogenated solvents are not VOCs or HAPs.

Section III: PERMIT HISTORY

449-A was issued to Arkansas Power & Light Company on November 1, 1977. 449-A permitted the installation of the coal-fired steam electric station near Newark on the White River. The permit established the limit of the SO_2 emission rate at 0.93 lbs/MMBtu heat input. The maximum emission rate for TSP was limited to 611 lb/hr based on the use of coal with a heat content of 8700 Btu/lb and a maximum sulfur and ash content of 0.45 percent and 8 percent, respectively on an as received basis.

PSD-AR-48 was issued by the Environmental Protection Agency (EPA) to Arkansas Power and Light Company to construct the Independence Steam Electric Station on March 30, 1978. This PSD permit limited the emission rates from the common stack of the two 800 MW coal-fired units (Units 1 and 2) to 15,510 lb/hr SO_2 and 611 lb/hr TSP based on the use of coal with a heat content of 8,700 Btu/lb and a maximum sulfur of 0.45% and a maximum ash content of 8%. Limits of 0.04 lb/10^6 Btu TSP and 0.93 lb/10^6 Btu SO_2 were also included. The EPA determined that the facility met the Best Available Control Technology (BACT) requirements for SO_2 and TSP. (The actual technology requirements were not specified in the permit.) This source was also subject to the requirements of 40 CFR 60, Subpart D-*Standards of Performance for Fossil-Fuel-Fired Steam Generators for Which Construction is Commenced After August 17, 1971,* except that the maximum allowed emissions for TSP and SO_2 were 0.04 and 0.93 lb/10^6 Btu and 40 CFR 60, Subpart Y-*Standards of Performance for Coal Preparation Plants.*

449-AR-1 was issued to Arkansas Power & Light Company- Independence Steam Electric Station on April 9, 1991. In June, 1990, AP&L announced its intent to sell a percentage of power from Unit 2 to Entergy Power Incorporated (EPI). EPI is a subsidiary of Entergy Corporation. It was determined that a revised permit for the Independence facility was needed. The revised permit incorporated existing lb/10^6 Btu limits for particulate matter, and sulfur dioxide. The lb/hr limit for SO_2 was increased from 15,510 lb/hr to 16,182 lb/hr (8,091 lb/hr for each unit.) The lb/hr limit for TSP was increased from 611 lb/hr to 696 lb/hr (348 lb/hr for each unit.) The limits from 40 CFR 60, Subpart D-*Standards of Performance for Fossil-Fuel-Fired Steam Generators for Which Construction is Commenced After August 17, 1971,* were incorporated for oxides of nitrogen and opacity. It also identified emission sources that were not addressed in the original permit application (i.e. rotary car dumper, fly ash silos) and estimated pollutant emissions from fuel oil storage facilities and air toxic emissions. The restrictions of 40 CFR 60, Subpart Y-*Standards of Performance for Coal Preparation Plants* were removed from the permit because the facility commenced construction before the applicable date.

0449-AOP-R0 was the first operating air permit issued to Entergy-Arkansas, Inc.-Independence Steam Electric Station under Regulation 26 (Title V). There were no physical changes in the method of operation at the facility.

> Entergy-Arkansas, Inc. increased the CO limit for the Independence facility from 300 lb/hr (50 ppm) to 3232 lb/hr or 300 ppm hourly (100 ppm 24-hour average) to reflect the

optimum range for unit operating efficiency. Modeling analysis at a 500 ppm emission rate was conducted and showed no significant impact to the *NAAQS*. In addition, a Best Achievable Control Technology review was conducted since the facility is currently subject to PSD.

Entergy-Arkansas, Inc. elected to permit a new NO_X emission limit of 0.45 lb/MMBtu annual average at Independence Units 1 and 2. This early election is allowed under 40 CFR 76 of the Acid Rain Regulations. This limit was applicable beginning calendar year 1997. However, Entergy-Arkansas, Inc. 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.

*See BACT Analysis for Permit #449-AOP-R0.

Permit #449-AOP-R1 was issued July 12, 2000. In this minor modification, storage tanks SN-10 and SN-11, and the Emergency Diesel Generator (SN-08), and the Fire Pump Emergency Diesel Generator (SN-09) were moved to the insignificant activities list. Storage tank SN-15 was removed from the permit because it was no longer in existence. The fuel throughput for storage tanks SN's 12, 13, and 14 was increased. The true vapor pressure for SN-13 and SN-14 was also increased.

Permit #449-AOP-R2 was issued November 8, 2001. In this minor modification, the facility replaced the control equipment associated with the rail car rotary dumper (SN-03) and the coal emission points (SN-06) with chemical foam spray. Emissions from the use of the chemical foam spray were permitted at 2.2 tpy VOC.

Permit #449-AOP-R3 was issued on June 3, 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 diesel throughput of SN-12; move SN-14 to the insignificant activities list; increase the cooling tower circulating water flow rate (SN-16 and SN-17); increase the cooling tower total dissolved solids content (SN-16 and SN-17); permit the degreasers (SN-18) and grit blaster (SN-19) which were previously submitted as insignificant; correct the emission rate limits of SN-05 to reflect No. 2 fuel oil firing; correct the fly ash silos (SN-04) PM emission rates; specify the CO PSD limit and compliance demonstration (SN-01 and SN-02); correct the permitted annual CO emission rate (SN-01 and SN-02) to correspond with the PSD limit of 100 ppm (24-hr average); update the PM_{10} emission rates (SN-01, SN-02, and SN-05) to include condensable particulate matter; and correct the permitted PM emission rates (SN-01 and SN-02) to correspond with the PSD limit of 0.04 lb/MMBtu. An administrative amendment was issued on August 8, 2005 to remove the words "from northeastern Wyoming" from the process description and to remove the "-88" from ASTM D4507-88 for the fuel oil sampling condition.

Facility: Entergy Arkansas, Inc. - Independence
Permit No.: 0449-AOP-R5
AFIN: 32-00042

Permit # 0449-AOP-R4 was issued on May 8, 2006. The permitting actions included:

1. Allowing for the use of bituminous coal;
2. Increasing the coal sulfur and ash contents;
3. Setting the PM_{10} emission rate limits equal to the PM emission rate limits for SN-01 and SN-02;
4. Adding Specific Condition #6;
5. Revising Specific Condition #28;
6. Adding Specific Condition #29;
7. Adding 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 (which includes the addition of Specific Condition #41); and
8. Revising the opacity limit for SN-04.

The total permitted emission rate increases associated with the permitting actions include: 1,830.8 tons per year (tpy) PM and 4,599.0 tpy PM_{10}. These increases did not require PSD review because there was no physical modification to the boilers (SN-01 and SN-02) and the original PM PSD limit had not changed with the modification. The PSD limit of 0.04 lb of filterable PM per MMBtu still applies to SN-01 and SN-02.

Section IV: SPECIFIC CONDITIONS

SN-01, SN-02, and SN-05

Boilers

Source Descriptions

SN-01 and SN-02 are 8700 million Btu per hour coal fired boilers. Both boilers were installed in 1978. Unit 1 (SN-01) was placed into operation in 1983 and Unit 2 (SN-02) was placed into operation in 1985. 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.

A PSD permit was issued by the EPA in 1978 for the Independence facility. The facility underwent PSD review for SO_2 and TSP. The limits of 0.04 lb/10^6 Btu TSP and 0.93 lb/10^6 Btu SO_2 are still in effect. A PSD permit for CO was issued by the Department in 1998. These limits are specified in the Specific Conditions section for these sources.

Particulate emissions from SN-01 and SN-02 are controlled with electrostatic precipitators. NSPS emissions standards for particulate matter are 0.1 lb/MMBtu and a maximum opacity of 20 percent. However, the more stringent PSD emission limitation of 0.04 lb/MMBtu is in effect for this facility. A continuous opacity monitor records opacity emissions.

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. However, the more stringent PSD emission limitation of 0.93 lb/MMBtu is in effect for this facility. A continuous emissions monitoring system measures sulfur dioxide emissions. Continuous emissions monitoring systems also measure CO_2 emissions and NO_X emissions under Acid Rain requirements (40 CFR 75).

SN-05 is a 183 million Btu per hour boiler. It was installed in 1978. This auxiliary boiler combusts No. 2 fuel or Bio-diesel in order to provide steam for unit start-up and shut-down 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 set forth in the following table, when operating under Scenario I: Coal Firing. [Regulation No. 19 §19.501 *et seq.* effective October 15, 2007 and 40 CFR Part 52, Subpart E]

Table 4 – Maximum Criteria Pollutant Emission Rates for Scenario I: Coal Firing

Source No.	Pollutant	lb/hr	tpy
SN-01	PM_{10}	662.0*	2,899.6
	SO_2	8,091.0	35,438.6
	VOC	35.0	153.3
	CO	3,232.0	4,718.8**
	NO_X	6,090.0	26,674.2
	Lead	0.3	1.0
SN-02	PM_{10}	662.0*	2,899.6
	SO_2	8,091.0	35,438.6
	VOC	35.0	153.3
	CO	3,232.0	4,718.8**
	NO_X	6,090.0	26,674.2
	Lead	0.3	1.0

*Note: This lb/hr limit is based on 348 lb/hr filterable PM_{10} and 314 lb/hr condensable PM_{10}. See Specific Condition # 2.

**Note: The CO tpy limit is based on the PSD limit of 100 ppm (24 hour average).

2. The permittee shall not exceed the emission rates set forth in the following table, when operating under Scenario I: Coal Firing. [§19.901 of Regulation 19 et seq, and 40 CFR Part 52, Subpart E]

Table 5 – Maximum PSD Emission Rates for Scenario I: Coal Firing

Source No.	Pollutant	lb/hr	tpy
SN-01	PM	348.0**	1,524.3**
	SO_2	8,091.0	35,438.6
	CO	3,232.0	4,718.8*

Source No.	Pollutant	lb/hr	tpy
SN-02	PM	348.0**	1,524.3**
	SO_2	8,091.0	35,438.6
	CO	3,232.0	4,718.8*

*Note: The CO tpy limit is based on the PSD limit of 100 ppm (24 hour average).
**Filterable PM only as measured by US EPA Reference Method 5. See Specific Condition #6.

3. The permittee shall not exceed the emission rates set forth in the following table, when operating under Scenario I: Coal Firing. [Regulation No. 18 §18.801 effective February 15, 1999, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

Table 6 – Maximum Non-Criteria Pollutant Emission Rates for Scenario I: Coal Firing

Source No.	Pollutant	lb/hr	tpy
SN-01	PM	662.0*	2,899.6
	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

Source No.	Pollutant	lb/hr	tpy
	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	11.71	51.27
SN-02	PM	662.0*	2,899.6
	Acenaphthene	0.01	0.01
	Acenaphthylene	0.01	0.01
	Acetaldehyde	0.30	1.32
	Anthracene	0.01	0.01
	Acrolein	0.16	0.67
	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

Source No.	Pollutant	lb/hr	tpy
	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	11.71	51.27

*Note: This lb/hr limit is based on 348 lb/hr filterable PM and 314 lb/hr condensable PM. See Specific Condition # 2.

4. 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. A copy of Subpart D is provided in Appendix A. [§19.304 of Regulation 19, and 40 CFR Part 60] Applicable provisions of Subpart D, include, but are not limited to:

   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 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(a)(2)]
   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. [40 CFR 60.45(a)]
   f. Excess emission and monitoring system performance reports shall be submitted to the ADEQ 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)(1), (2), and (3). [40 CFR 60.45(g)]
   g. 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)]

h. 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)]

i. 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)]

Note these units are also subject to PSD Restrictions.

*A more stringent PSD limit of 0.04 lb/MMBtu is in effect for these units. (See Specific Condition #5)

**A more stringent PSD limit of 0.93 lb/MMBtu is in effect for these units. (See Specific Condition #5)

5. The emissions from SN-01 and SN-02 shall not exceed the PSD emission limits in the following table when burning coal or No. 2 fuel oil. [§19.901 of Regulation 19 et seq, and 40 CFR Part 52, Subpart E]

Table 7 – Maximum PSD Emission Limits

Source No.	Pollutant	lb/MMBtu
SN-01	PM*	0.04
	SO_2	0.93
SN-02	PM*	0.04
	SO_2	0.93

*Filterable PM only, as measured by US EPA Reference Method #5. See Specific Condition # 6

6. The PM emission limits of Specific Condition # 5 are for filterable PM as measured by US EPA Reference Method #5. [A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

7. Carbon monoxide (CO) emissions shall not exceed the PSD limit of 100 ppm (24-hour average) per unit from SN-01 and SN-02 when burning coal or No. 2 fuel oil. [§19.901 of Regulation 19 et seq, and 40 CFR Part 52, Subpart E]

8. The permittee shall test SN-01 and SN-02 for CO while operating under Scenario I: Coal Firing. 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. This testing shall be conducted while operating at 90% or greater capacity and consist of three, one hour test periods

averaged to demonstrate compliance with Specific Condition #7. [§19.702 of Regulation 19 and 40 CFR Part 52, Subpart E]

9. The permittee shall maintain records which demonstrate compliance with the SO_2 emission limits set in Specific Conditions #1, #4, and #5. 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 SO_2 emissions as measured by the CEMS and converted to pounds per hour per 40 CFR Part 75. For Specific Conditions #4 and #5, 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. [§19.705 of Regulation 19, and 40 CFR Part 52, Subpart E]

10. The permittee shall maintain records which demonstrate compliance with the NO_X emission limits set in Specific Conditions #1 and #4. 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 #4, 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]

11. 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 #12. [§19.503 of Regulation 19, and 40 CFR Part 52, Subpart E and 40 CFR 60.42(a)(2)]

12. 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 discharged to the atmosphere from SN-01 and SN-02 and record the output of the system. This CEMS shall comply with the Air Division's "Continuous Emission Monitoring System 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 a sudden or 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; §19.901 of Regulation 19 et seq; 40 CFR Part 52, Subpart E; A.C.A. §8- 4-203 as referenced by §8-4-304 and §8-4-311; and 40 CFR 60, Subpart D]

13. 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 period of excess emissions, process operating time during reporting period, date and time of each period during which the CEMS are 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. Reports shall be sent to the following address [§19.304 of Regulation 19, and 40 CFR 60, §60.7]:

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

14. 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, §75.10]

15. 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]

Table 8 – Maximum Criteria Pollutant Emission Rates for Scenario II: No. 2 Fuel Oil or Bio-diesel Firing

Source No.	Pollutant	lb/hr	tpy
SN-01	PM_{10}	16.8	73.6
	SO_2	573.0	2,509.8
	VOC	1.9	8.1
	CO	3,232.0	4,718.8
	NO_X	175.2	767.4
	Lead	0.1	0.4
SN-02	PM_{10}	16.8	73.6
	SO_2	573.0	2,509.8
	VOC	1.9	8.1
	CO	3,232.0	4,718.8
	NO_X	175.2	767.4
	Lead	0.1	0.4

16. 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]

Table 9 – Maximum Non-Criteria Pollutant Emission Rates for Scenario II: No. 2 Fuel Oil or Bio-diesel Firing

Source No.	Pollutant	lb/hr	tpy
SN-01	PM	24.1	105.6
	Arsenic	0.04	0.16
	Beryllium	0.03	0.12
	Cadmium	0.03	0.12
	Chromium	0.03	0.12
	Formaldehyde	0.36	1.54
	Manganese	0.06	0.23
	Mercury	0.03	0.12
	Nickel	0.03	0.12
	POM	0.03	0.11
	Selenium	0.14	0.58
	N_2O	0.81	3.52
	H_2SO_4	7.61	33.33
SN-02	PM	24.1	105.6

Source No.	Pollutant	lb/hr	tpy
	Arsenic	0.04	0.16
	Beryllium	0.03	0.12
	Cadmium	0.03	0.12
	Chromium	0.03	0.12
	Formaldehyde	0.36	1.54
	Manganese	0.06	0.23
	Mercury	0.03	0.12
	Nickel	0.03	0.12
	POM	0.03	0.11
	Selenium	0.14	0.58
	N_2O	0.81	3.52
	H_2SO_4	7.61	105.6

17. The permittee shall maintain records which demonstrate compliance with the SO_2 emission limits set in Specific Conditions #15 and #5 and may be used by the Department for enforcement purposes. For Specific Condition #15, 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. For Specific Condition #5, 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. 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]

18. The permittee shall maintain records which demonstrate compliance with the NO_X emission limits set in Specific Condition #15 and may be used by the Department for enforcement purposes. For Specific Condition #15, 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]

19. The permittee may burn No. 2 Fuel Oil or Bio-diesel during startup, shutdown, and malfunction. For all other No. 2 Fuel Oil or Bio-diesel 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 June 15, 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]

20. 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]

21. The permittee shall not exceed the rates in the following table during any consecutive twelve month period from SN-01 and SN-02 when firing coal, No. 2 fuel oil, or Bio-diesel. [§19.501 of Regulation 19 et seq, and 40 CFR Part 52, Subpart E]

Table 10 – Maximum Combined SO_2 Emission Rate for SN-01 and SN-02

Source No.	Pollutant	tpy
SN-01 and SN-02	SO_2	70,877.2

22. The permittee shall maintain monthly records which demonstrate compliance with the limit set in Specific Condition #21. These records may be used by the Department for enforcement purposes. 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]

23. The permittee shall not exceed the rates in the following table during any consecutive twelve month period from SN-01 and SN-02 when firing coal, No. 2 fuel oil, or Bio-diesel. [§19.501 of Regulation 19 et seq, and 40 CFR Part 52, Subpart E]

Table 11 – Maximum Combined NO_X Emission Rate for SN-01 and SN-02

Source No.	Pollutant	tpy
SN-01 and SN-02	NO_X	53,348.4

24. The permittee shall maintain monthly records which demonstrate compliance with the limit set in Specific Condition #23. These records may be used by the Department for enforcement purposes. 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]

25. 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]

26. The permittee shall submit the required electronic data reports (EDRs) to EPA Headquarters. [§19.304 of Regulation 19, and 40 CFR Part 75]

27. Relative Accuracy tests will be performed 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]

28. 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. [§19.304 of Regulation 19, and 40 CFR Part 75.10(c)]

29. 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]

30. The ash content of the coal or coal blend shall not exceed 15.96 lb/MMBtu. The sulfur content of the coal or coal blend shall not exceed 0.66%, unless the following equation can be met:

$$\left[((0.1 \times S) - 0.03) \times 8700\right] + \left[\left(10 \times (1 - 0.995) \times A \times 8700 \times \left(\frac{1}{C}\right)\right)\right] \leq 662 \text{ lb/hr}$$

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]

31. 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 20% or greater on a three-hour average. Corrective action shall include 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]

32. 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:

1. equipment malfunction or upset and are not the result of negligence or improper maintenance;

2. 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 #12. [§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]

33. 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 or Bio-diesel 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. Each 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 #34.)* [§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]

34. The permittee shall maintain records of fuel oil or Bio-diesel sampling. 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]

35. 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]

36. 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]

Table 12 – Maximum Criteria Pollutant Emission Rates for SN-05

Source No.	Pollutant	lb/hr	tpy
SN-05	PM_{10}	4.5	19.4
	SO_2	105.2	460.8
	VOC	0.4	1.5
	CO	6.7	29.4
	NO_X	32.2	140.9
	Lead	0.1	0.1

37. 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]

Table 13 – Maximum Non-Criteria Pollutant Emission Rates for SN-05

Source No.	Pollutant	lb/hr	tpy
SN-05	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

Source No.	Pollutant	lb/hr	tpy
	Nickel	0.01	0.01
	POM	0.01	0.02
	Selenium	0.01	0.02
	N_2O	0.15	0.65

38. The opacity shall not exceed 20% from SN-05 as measured by EPA Reference Method 9. [§19.503 of Regulation 19 and 40 CFR Part 52, Subpart E]

39. Weekly observations of the opacity from SN-05 shall be conducted by personnel familiar with the permittee's visible emissions, when it operates 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]

40. 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 Descriptions

SN-03 The coal for the Independence 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, is capable of emptying approximately 30 cars per hour. The rotoclone and water sprays previously used to control emissions from this process were replaced by chemical foam spray in 2001. Emissions from the rail car rotary dumper are regulated under the State Implementation Plan (SIP), Regulation 19.

SN-06 Minor emission sources at the facility include coal handling/conveying operations (not subject to NSPS Subpart Y). Dust emissions from the coal handling operations (SN-06) were previously controlled with AMERCLONES, rotoclones and wet sprays. Beginning in 2001, dust emissions are now controlled with water and a chemical foam spray. SN-06 is separated into three sources: SN-06A, SN-06B, and SN-06C. SN-06A, Handling and Conveying Emissions, includes emission points M2, M3, M5, M6, M7, M8, M9, M12, M13, M14, M15, M16, M24, M25, M26, M27, M28, M32, and M33. SN-06B, Stacker/Reclaimer Emissions, includes emission points M17, M18, M20, M21, M22, and M23. SN-06C, Storage Piles and Haul Road Emissions, includes emission points M11 and M34. Emissions are regulated under the State Implementation Plan (SIP), Regulation 19.

Specific Conditions

41. The permittee shall not exceed the emission rates set forth in the following table. [§19.501 et seq of the Regulations of the Arkansas Plan of Implementation for Air Pollution Control (Regulation #19) effective October 15, 2007 and 40 CFR Part 52, Subpart E]

Table 14 – Maximum Criteria Pollutant Emission Rates for SN-03 and SN-06

Source No.	Pollutant	lb/hr	tpy
SN-03 and SN-06	VOC	1.3	2.2
SN-03	PM_{10}	0.1	0.1
SN-06A	PM_{10}	0.3	1.3
SN-06B	PM_{10}	0.3	1.1
SN-06C	PM_{10}	38.5	91.7

42. The permittee shall not exceed the emission rates set forth in the following table. [§18.801 of the Arkansas Air Pollution Control Code (Regulation #18) effective February 15, 1999, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

Table 15 – Maximum Non-Criteria Pollutant Emission Rates for SN-03 and SN-06

Source No.	Pollutant	lb/hr	tpy
SN-03	PM	16.0	70.1
SN-06A	PM	0.6	2.6
SN-06B	PM	0.6	2.3
SN-06C	PM	134.5	261.2

43. The permittee shall not use any chemical foam spray at SN-03 and SN-06 which contains HAPs. [§18.1004 of Regulation 18, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

44. Records shall be maintained to demonstrate compliance with Condition #43. These records shall be updated no later than the last day of the month following the month which the records represent. Such records shall be submitted to the Department in accordance with General Provision #7. [§18.1004 of Regulation 18, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

45. The VOC content of the chemical foam spray used at SN-03 and SN-06 shall not exceed 1.42% 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 Part 70.6]

46. Records shall be maintained to demonstrate compliance with Specific Condition #45. These records shall be updated no later than the last day of the month following the month which the records represent. Such records shall be submitted to the Department in accordance with General Provision #7. [§19.705 of Regulation 19, and 40 CFR Part 52, Subpart E]

47. Usage of the chemical foam spray at SN-03 and SN-06 shall not exceed 300,000 pounds in 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 Part 70.6]

48. The permittee shall maintain monthly records to demonstrate compliance with Specific Condition #47. 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]

49. The permittee shall not cause to be discharged into the atmosphere any emissions which exhibit an opacity greater than 20% from the sources at 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]

50. 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.

    a. The date and time of the observation.

    b. If visible emissions were detected.

    c. 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.

    d. 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.

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

51. The permittee shall conduct weekly observations of the opacity for 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.

    a. The date and time of the observation.

b. If visible emissions were detected.

c. 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.

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

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

52. 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.

53. The permittee shall use the foam sprays while the dumper (SN-03) is in operation and at all times when the Transfer Points (SN-06) including Bins, Silos, etc., that are equipped with the foam spray controls are in use 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]

54. The permittee shall comply with the maintenance plan submitted to the Department for the rotary car dumper, SN-03 (See Appendix C). The requirements include but are not limited to the following:

a. inspect spray nozzles for pluggage,
b. check air pressure and flow,
c. check water pressure and water/dust foam flow, and
d. check for adequate dust foam chemical additive.

The permittee may use equivalent or alternative plans for this source without undergoing a modification to this permit if the new maintenance plans have been reviewed and approved by the Department. The permittee is required to submit any new maintenance plan for this source to the Department and may not implement the maintenance plan until the facility receives approval from the Department. The permittee must submit the proposed maintenance plan(s) with a cover letter explaining any changes to the following address.

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

[§19.304 of Regulation 19, and 40 CFR 70.6]

55. The fly ash trucks hauling ash for disposal in 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]

56. The permittee shall maintain monthly records to demonstrate compliance with Specific Condition #55. 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:

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

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

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]

57. The permittee shall not operate the three Coal Yard Dozers more than a combined 9,000 hours per consecutive twelve (12) month period, and the water wagon shall not exceed 3,000 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 with Fabric Filters

Source Description

The Independence Plant is equipped with two (2) fly ash silos. Particulate emissions from the silos are controlled by fabric filters (SN-04) with 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 at SN-04 specified in the following table. [§19.501 of Regulation 19 et seq, and 40 CFR Part 52, Subpart E]

Table 16 – Maximum Criteria Pollutant Emission Rates for SN-04

Source No.	Pollutant	lb/hr	tpy
SN-04	PM_{10}	0.1	0.1

60. The permittee shall not exceed the emission rates at SN-04 specified 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]

Table 17 – Maximum Non-Criteria Pollutant Emission Rates for SN-04

Source No.	Pollutant	lb/hr	tpy
SN-04	PM	4.0	17.6

61. The permittee shall not cause to be emitted from this source any emission which exhibit an opacity greater than 5 percent. The opacity shall be measured in accordance with 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]

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. 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 bags;
g. Check diffuser blower bearings for heat and vibration;
h. Check blower case for excessive heat buildup;
i. Check inlet filter and change as needed.

The permittee may use equivalent or alternative maintenance plans for this source without undergoing a modification to this permit. [§19.303 of Regulation 19, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

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 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 from the storage tank are 1.7 tons/year of volatile organic compounds (VOCs). Emissions are regulated under the State Implementation Plan (SIP), Regulation 19.

Specific Conditions

65. The permittee shall not exceed the emission rates at SN-07 as specified in the following table. [§19.501 of Regulation 19 et seq, and 40 CFR Part 52, Subpart E]

Table 18 – Maximum Criteria Pollutant Emission Rates for SN-07

Source No.	Pollutant	lb/hr	tpy
SN-07	VOC	0.4	1.7

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

SN-12 and SN-13

Miscellaneous Storage Tanks

Source Description

SN-12 (T27) is a 15,000 gallon tank used to store diesel.

SN-13 (T29) is a 2,500 gallon tank used to store gasoline.

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 specified in the following table. [§19.501 of Regulation 19 et seq, and 40 CFR Part 52, Subpart E]

Table 19 – Maximum Criteria Pollutant Emission Rates for SN-12 and SN-13

Source No.	Pollutant	lb/hr	tpy
SN-12 (T27)	VOC	0.1	0.1
SN-13 (T29)	VOC	0.1	0.1

69. The permittee shall store only diesel in storage tank SN-12. 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-13. 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 an annual throughput limit of 200,000 gallons of diesel at SN-12 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 an annual throughput of 15,600 gallons of gasoline at SN-13 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 maintain records which demonstrate compliance with the limits set in Specific Conditions #71 and #72. These records may be used by the Department for enforcement purposes. These records shall be updated no later than the last day of the month following the month which the records represent. The twelve month rolling total and each individual month's data shall be kept on site, provided to Department personnel upon request, and submitted in accordance with General Provision #7. [§19.705 of Regulation 19, and 40 CFR Part 52, Subpart E]

SN-16 and SN-17

Cooling Towers

Source Description

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

Specific Conditions

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

Table 20 – Maximum Criteria Pollutant Emission Rates for SN-16 and SN-17

Source No.	Pollutant	lb/hr	tpy
SN-16 (X35)	PM_{10}	5.7	24.9
SN-17 (X36)	PM_{10}	5.7	24.9

75. The permittee shall not exceed the emission rates specified 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]

Table 21 – Maximum Non-Criteria Pollutant Emission Rates for SN-16 and SN-17

Source No.	Pollutant	lb/hr	tpy
SN-16 (X35)	PM	5.7	24.9
SN-17 (X36)	PM	5.7	24.9

76. The permittee shall not cause to be discharged to the atmosphere from this source any cooling tower drift emissions which exhibit an opacity greater than 5 percent. The opacity shall be measured in accordance with 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]

77. 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 #76. [A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

78. The total dissolved solids content shall not exceed 3,600 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]

79. The permittee shall monitor the total dissolved solids weekly when the unit is operating to demonstrate compliance with Specific Condition #78. 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]

80. The circulating water flow for SN-16 and SN-17 shall not exceed 21,600 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]

81. The permittee shall test the circulating water flow annually to demonstrate compliance with this Specific Condition #80. 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-18

Degreasing Operations

Source Description

This source consists of ten (10) degreasers with a total capacity of 698 gallons. Four (4) of the degreasers are used during outage periods only. One of the degreasers, the turbine oil filter degreaser (16 gallon capacity), uses a different solvent than the other 9 degreasers.

Specific Conditions

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

Table 22 – Maximum Criteria Pollutant Emission Rates for SN-18

Source No.	Pollutant	lb/hr	tpy
SN-18	VOC	8.5	12.0

83. The VOC content of the solvent used at the turbine oil filter degreaser shall not exceed 7.59 pounds of VOC per gallon of solvent. Material Safety Data Sheets 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]

84. The VOC content of the solvent used at all degreasers other than the turbine oil filter degreaser 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. [§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]

85. The throughput of the turbine oil filter degreaser shall not exceed 32 gallons of solvent per 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]

86. The throughput of all degreasers excluding the turbine oil filter degreaser shall not exceed 3,480 gallons of solvent per 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]

87. Monthly records shall be maintained to demonstrate compliance with Specific Conditions #85 and #86. 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. [§19.705 of Regulation 19, and 40 CFR Part 52, Subpart E]

SN-19

Grit Blaster

Source Description

This source consists of a grit blaster used for small parts cleaning. The maximum hourly abrasive usage rate is 550 lb/hr. The emissions are controlled with a baghouse.

Specific Conditions

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

Table 23 – Maximum Criteria Pollutant Emission Rates for SN-19

Source No.	Pollutant	lb/hr	tpy
SN-19 (X23)	PM_{10}	0.7	2.7

89. The permittee shall not exceed the emission rates specified 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]

Table 24 – Maximum Non-Criteria Pollutant Emission Rates for SN-19

Source No.	Pollutant	lb/hr	tpy
SN-19 (X23)	PM	1.8	7.6

90. The permittee shall not cause to be emitted from this source any emission which exhibit an opacity greater than 5 percent. The opacity shall be measured in accordance with 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]

91. The permittee shall operate the baghouse according to the manufacturer's specifications. Compliance with this specific condition may demonstrate compliance with Specific Condition #90. [§19.303 of Regulation 19 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

Section V: COMPLIANCE PLAN AND SCHEDULE

Entergy Arkansas, Inc. – Independence 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: PLANT WIDE CONDITIONS

1. The permittee will 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 No. 19 §19.704, 40 CFR Part 52, Subpart E, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

2. If the permittee fails to start construction within eighteen months or suspends construction for eighteen months or more, the Director may cancel all or part of this permit. [Regulation No. 19 §19.410(B) and 40 CFR Part 52, Subpart E]

3. The permittee must test any equipment scheduled for testing, unless 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 will 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: [Regulation No. 19 §19.702 and/or Regulation No. 18 §18.1002 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

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

5. The permittee must operate the equipment, control apparatus and emission monitoring equipment within the design limitations. The permittee will maintain the equipment in good condition at all times. [Regulation No. 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 No. 26 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

Acid Rain (Title IV)

7. The Director prohibits the permittee to cause any emissions exceeding any allowances the source lawfully holds under Title IV of the Act or the regulations promulgated under the Act. No permit revision is required for increases in emissions allowed by allowances

acquired pursuant to the acid rain program, if such increases do not require a permit revision under any other applicable requirement. This permit establishes no limit on the number of allowances held by the permittee. However, the source may not use allowances as a defense for noncompliance with any other applicable requirement of this permit or the Act. The permittee will account for any such allowance according to the procedures established in regulations promulgated under Title IV of the Act. [Regulation No. 26 §26.701 of and 40 CFR 70.6(a)(4)]

Title VI Provisions

8. The permittee must comply with the standards for labeling of products using ozone-depleting substances. [40 CFR Part 82, Subpart E]

    a. All containers containing a class I or class II substance stored or transported, all products containing a class I substance, and all products directly manufactured with a class I substance must bear the required warning statement if it is being introduced to interstate commerce pursuant to §82.106.

    b. The placement of the required warning statement must comply with the requirements pursuant to §82.108.

    c. The form of the label bearing the required warning must comply with the requirements pursuant to §82.110.

    d. No person may modify, remove, or interfere with the required warning statement except as described in §82.112.

9. The permittee must comply with the standards for recycling and emissions reduction, except as provided for MVACs in Subpart B. [40 CFR Part 82, Subpart F]

    a. Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to §82.156.

    b. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to §82.158.

    c. Persons performing maintenance, service repair, or disposal of appliances must be certified by an approved technician certification program pursuant to §82.161.

    d. Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with record keeping requirements pursuant to §82.166. ("MVAC-like appliance" as defined at §82.152.)

e. Persons owning commercial or industrial process refrigeration equipment must comply with leak repair requirements pursuant to §82.156.

f. Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to §82.166.

10. If the permittee manufactures, transforms, destroys, imports, or exports a class I or class II substance, the permittee is subject to all requirements as specified in 40 CFR Part 82, Subpart A, Production and Consumption Controls.

11. If the permittee performs a service on motor (fleet) vehicles when this service involves ozone-depleting substance refrigerant (or regulated substitute substance) in the motor vehicle air conditioner (MVAC), the permittee is subject to all the applicable requirements as specified in 40 CFR part 82, Subpart B, Servicing of Motor Vehicle Air Conditioners.

The term "motor vehicle" as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed. The term "MVAC" as used in Subpart B does not include the air-tight sealed refrigeration system used as refrigerated cargo, or the system used on passenger buses using HCFC-22 refrigerant.

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

Permit Shield

13. Compliance with the conditions of this permit shall be deemed compliance with all applicable requirements, as of the date of permit issuance, included in and specifically identified in Table 25 – Applicable Regulations of this condition. The permit specifically identifies the following as applicable requirements based upon the information submitted by the permittee in an application dated November 27, 2002.

Table 25 – Applicable Regulations

Regulation	Description	Basis
Regulations of the Arkansas Operating Air Permit Program	Regulation 26 Section 3	Facility is defined as a major source.
State Implementation Plan, Prevention of Significant Deterioration Supplement	Regulation 19 §19.9	Facility is currently a major stationary source for the purpose of applicability.

Regulation	Description	Basis
New Source Performance Standards for Fossil-Fuel-Fired Steam Generators after August 17, 1978	40 CFR 60 Subpart D	Fossil-fuel fired steam generating units have heat input rate greater than 250 MMBtu/hr.
National Emission Standards for Hazardous Air Pollutants	40 CFR 61 Subpart M	Facility meets requirements for asbestos.
Acid Rain Permit Regulations	40 CFR 72 Subpart A-D	Units meet the definition of an affected source.
SO_2 Allowance Allocations	40 CFR 73 Subpart B	Facility is on list of Phase II Allowance Allocations.
Continuous Emission Monitoring	40 CFR 75 Subpart A-D, F, and G	Facility is subject to Acid Rain Requirements for the purpose of applicability.
NO_X Emission Reduction Program	40 CFR 76	Facility is subject to Acid Rain Requirements for the purpose of applicability.
Excess Emissions	40 CFR 77	Facility is subject to Acid Rain Requirements for the purpose of applicability.
Prevention of Significant Deterioration of Air Quality (PSD)	40 CFR 52.21	Facility is subject to PSD requirements.
Compliance Assurance Monitoring (CAM)	40 CFR 64	Facility is subject to CAM requirements.
Protection of Stratospheric Ozone	40 CFR 82	Facility is subject to these requirements.

The permit specifically identifies the following as inapplicable based upon information submitted by the permittee in an application dated November 27, 2002.

Table 26 – Inapplicable Regulations

Source No.	Regulation	Description
Not Applicable		

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 is a significant activity even if this activity meets the criteria of §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 November 27, 2002 and correspondence dated May 30, 2003.

Table 27 - Insignificant Activities

Description	Category
Microwave Tower Propane Generator (C6), Kerosene Fired Space Heaters #1-#4 (C7-C10)	A-1
Storage tanks less than 250 gallons storing organic liquids having a true vapor pressure less than or equal to 3.5 psia, provided that the aggregate pollutant specific emissions from all such liquid storage tanks listed as insignificant do not exceed 5 tpy of any combination of HAPs and 10 tpy of any other pollutant. (T52, T63-T65)	A-2
Storage tanks less than 10,000 gallons storing organic liquids having a true vapor pressure less than or equal to 0.5 psia, provided that the aggregate pollutant specific emissions from all such liquid storage tanks listed as insignificant do not exceed 5 tpy of any combination of HAPs and 10 tpy of any other pollutant. (T3-T12, T14-T26, T28, T32-T33, T47-T48)	A-3
Caustic storage tank containing no VOCs. (T36B, T36C, T37)	A-4
Emissions from laboratory equipment/vents (V38 and V39)	A-5

Description	Category
Emergency use generators, boilers, or other fuel burning equipment that is of equal or smaller capacity than the primary operating unit, cannot be used in conjunction with the primary operating unit, and does not emit or have the potential to emit regulated air pollutants in excess of the primary operating unit and not operated more than 90 days a year. (C4, 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 2 Lube Oil Storage Tank (T13), Unleaded Gasoline Storage Tank - 500 gal (T30), Oil/Water Separator (W5-W7), Oil/Waste Basin (W8), Turbine Area Sump (W9), Fuel Dispensing Stations (X1-X8), Welding Area (X10-X15), Transformers (X24-X28), Switchyard Oil Circuit Breaker (X29), Unit 1 and Unit 2 Battery Room (X30-X31), Common Battery Room (X32), Metalizer (X34), Aerosol Lubricant Fugitives (X57), Aerosol Degreaser Fugitives (X58), and Insecticide Fugitives (X59)	A-13
AC Chiller – Pressure Tanks (X38-X45 and X53-X56)	Pressure Tanks No Emissions

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

Section VIII: GENERAL PROVISIONS

1. 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.[Pursuant to 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), effective September 26, 2002]

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. [40 CFR 70.6(a)(3)(ii)(A) and Regulation #26 §26.701(C)(2)]

   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.

6. The permittee must retain the records of all required monitoring data and support information for at least 5 years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. [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 6 months. If no other reporting period has been established, the reporting period will end on the last day of the anniversary month of the initial Title V permit. The report is due within 30 days of the end of the reporting period. Even though the reports are due every six months, each report shall contain a full year of data. The report must clearly identify all instances of deviations from permit requirements. A responsible official as defined in Regulation #26 §26.2 must certify all required reports. The permittee will send the reports to the address below: [40 CFR 70.6(a)(3)(ii)(B) and §26.701(C)(2)(b)]

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

8. The permittee will 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 Regulation 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 will 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 will 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 in the initial and full report required in 8a.

[40 CFR 70.6(a)(3)(iii)(B), Regulation No. 26 §26.701(C)(3)(b), Regulation No. 19 §19.601 and §19.602]

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) and §26.701(E) of Regulation #26, and A.C.A. §8-4-203, as referenced by §8-4-304 and §8-4-311]

10. The permittee must comply with all conditions of this Part 70 permit. Any permit noncompliance with applicable requirements as defined in Regulation #26 constitutes a violation of the Clean Air Act, as amended, 42 U.S.C. §7401, *et seq.* and is grounds for enforcement action; for permit termination, revocation and reissuance, for permit modification; or for denial of a permit renewal application. [40 CFR 70.6(a)(6)(i) and Regulation No. §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 §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 #19. [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 will, 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 will submit a compliance certification with the terms and conditions contained in the permit, including emission limitations, standards, or work practices. The

permittee will 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 §8-4-304 and §8-4-311]

APPENDIX A

40 CFR Part 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)	Emission limits		
		HMIWI size		
		Small	Medium	Large
Lead	Milligrams per dry standard cubic meter (grains per thousand dry standard cubic feet) or percent reduction.	1.2 (0.52) or 70%	1.2 (0.52) or 70%	1.2 (0.52) or 70%.
Cadmium	Milligrams per dry standard cubic meter (grains per thousand dry standard cubic feet) or percent reduction.	0.16 (0.07) or 65%	0.16 (0.07) or 65%..	
Mercury	Milligrams per dry standard cubic meter (grains per thousand dry standard cubic feet) or percent reduction.	0.55 (0.24) or 85%	0.55 (0.24) or 85%	0.55 (0.24) or 85%.

TABLE 2 TO SUBPART CE—EMISSIONS LIMITS FOR SMALL HMIWI WHICH MEET THE CRITERIA UNDER § 60.33E(B)

Pollutant	Units (7 percent oxygen, dry basis)	HMIWI emission limits
Particulate matter	Milligrams per dry standard cubic meter (grains per dry standard cubic foot).	197 (0.086).
Carbon monoxide	Parts per million by volume	40.
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

§ 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 heat input rate (250 million Btu per hour).

(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 megawatts (250 million Btu per hour).

(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.

[42 FR 37936, July 25, 1977, as amended at 43 FR 9278, Mar. 7, 1978; 44 FR 33612, June 17, 1979]

§ 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.

(a) *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.

(b) *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.

(c) *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.

(d) *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.

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

(f) *Coal* means all solid fuels classified as anthracite, bituminous, subbituminous, or lignite by ASTM D388–77, 90, 91, 95, or 98a (incorporated by reference—see §60.17).

[39 FR 20791, June 14, 1974, as amended at 40 FR 2803, Jan. 16, 1975; 41 FR 51398, Nov. 22, 1976; 43 FR 9278, Mar. 7, 1978; 48 FR 3736, Jan. 27, 1983; 65 FR 61752, Oct. 17, 2000]

§ 60.42 Standard for particulate matter.

(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 which:

(1) Contain particulate matter in excess of 43 nanograms per joule heat input (0.10 lb per million Btu) 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.

[39 FR 20792, June 14, 1974, as amended at 41 FR 51398, Nov. 22, 1976; 42 FR 61537, Dec. 5, 1977; 44 FR 76787, Dec. 28, 1979; 45 FR 36077, May 29, 1980; 45 FR 47146, July 14, 1980; 46 FR 57498, Nov. 24, 1981; 61 FR 49976, Sept. 24, 1996; 65 FR 61752, Oct. 17, 2000]

§ 60.43 Standard for sulfur dioxide.

(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 which contain sulfur dioxide in excess of:

(1) 340 nanograms per joule heat input (0.80 lb per million Btu) derived from liquid fossil fuel or liquid fossil fuel and wood residue.

(2) 520 nanograms per joule heat input (1.2 lb per million Btu) derived from solid fossil fuel or solid fossil fuel and wood residue, except as provided in paragraph (e) of this section.

(b) 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:

$$PS_{SO2}=[y(340)+z(520)]/(y+z)$$

where:

PS_{SO2} is the prorated standard for sulfur dioxide when burning different fuels simultaneously, in nanograms per joule heat input derived from all fossil fuels fired or from all fossil fuels and wood residue fired,

y is the percentage of total heat input derived from liquid fossil fuel, and

z is the 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) [Reserved]

(e) Units 1 and 2 (as defined in appendix G) 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 nanograms per joule (1.1 lb per million Btu) combined heat input to Units 1 and 2.

[39 FR 20792, June 14, 1974, as amended at 41 FR 51398, Nov. 22, 1976; 52 FR 28954, Aug. 4, 1987]

§ 60.44 Standard for nitrogen oxides.

(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 which contain nitrogen oxides, expressed as NO_2 in excess of:

(1) 86 nanograms per joule heat input (0.20 lb per million Btu) derived from gaseous fossil fuel.

(2) 129 nanograms per joule heat input (0.30 lb per million Btu) derived from liquid fossil fuel, liquid fossil fuel and wood residue, or gaseous fossil fuel and wood residue.

(3) 300 nanograms per joule heat input (0.70 lb per million Btu) 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 nanograms per joule heat input (0.60 lb per million Btu) derived from lignite or lignite and wood residue (except as provided under paragraph (a)(5) of this section).

(5) 340 nanograms per joule heat input (0.80 lb per million Btu) 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) and (d) 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_{NO_x}=is the prorated standard for nitrogen oxides when burning different fuels simultaneously, in nanograms per joule heat input derived from all fossil fuels fired or from all fossil fuels and wood residue fired;

w= is the percentage of total heat input derived from lignite;

x= is the percentage of total heat input derived from gaseous fossil fuel;

y= is the percentage of total heat input derived from liquid fossil fuel; and

z= is the 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 nitrogen oxides does not apply.

(d) 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.

[39 FR 20792, June 14, 1974, as amended at 41 FR 51398, Nov. 22, 1976; 43 FR 9278, Mar. 7, 1978; 51 FR 42797, Nov. 25, 1986]

§ 60.45 Emission and fuel monitoring.

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

(b) Certain of the continuous monitoring system 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, continuous monitoring systems for measuring the opacity of emissions and sulfur dioxide emissions are not required.

(2) For a fossil fuel-fired steam generator that does not use a flue gas desulfurization device, a continuous monitoring system for measuring sulfur dioxide emissions is not required if the owner or operator monitors sulfur dioxide emissions by fuel sampling and analysis.

(3) Notwithstanding §60.13(b), installation of a continuous monitoring system for nitrogen oxides 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 nitrogen oxides are less than 70 percent of the applicable standards in §60.44, a continuous monitoring system for measuring nitrogen oxides emissions is not required. If the initial performance test results show that nitrogen oxide emissions are greater than 70 percent of the applicable standard, the owner or operator shall install a continuous monitoring system for nitrogen oxides 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 continuous monitoring systems for sulfur oxides and nitrogen oxides, as provided under paragraphs (b)(1) and (b)(3) or paragraphs (b)(2) and (b)(3) of this section a continuous monitoring system for measuring either oxygen or carbon dioxide is not required.

(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, as applicable, shall be used for the performance evaluations of sulfur dioxide and nitrogen oxides continuous monitoring systems. Acceptable alternative methods for Methods 6, 7, and 3B 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 and for a continuous monitoring system measuring sulfur oxides or nitrogen oxides the span value shall be determined as follows:

[In parts per million]

Fossil fuel	Span value for sulfur dioxide	Span value for nitrogen oxides
Gas	(1)	500
Liquid	1,000	500
Solid	1,500	1000
Combinations	1,000y+1,500z	500(x+y)+1,000z

[1] Not applicable.

where:

x=the fraction of total heat input derived from gaseous fossil fuel, and

y=the fraction of total heat input derived from liquid fossil fuel, and

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

(4) All span values computed under paragraph (c)(3) of this section for burning combinations of fossil fuels shall be rounded to the nearest 500 ppm.

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

(d) [Reserved]

(e) For any continuous monitoring system 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/million Btu):

(1) When a continuous monitoring system for measuring oxygen is selected, the measurement of the pollutant concentration and oxygen 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:

$$E=CF[20.9/(20.9-\text{percent } O_2)]$$

where:

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

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

$$E=CF_c\ [100/\text{percent } CO_2]$$

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/million Btu).

(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 sulfur dioxide and 46.01 for nitrogen oxides.

(3) $\%O_2$, $\%CO_2$=oxygen or carbon dioxide 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 carbon dioxide 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 D388–77, 90, 91, 95, or 98a (incorporated by reference—see § 60.17), $F=2{,}723\times10^{-17}$ dscm/J (10,140 dscf/million Btu and $F_c=0.532\times10^{-17}$ scm CO_2/J (1,980 scf CO_2/million Btu).

(ii) For subbituminous and bituminous coal as classified according to ASTM D388–77, 90, 91, 95, or 98a (incorporated by reference—see § 60.17), $F=2.637\times10^{-7}$ dscm/J (9,820 dscf/million Btu) and $F_c=0.486\times10^{-7}$ scm CO_2/J (1,810 scf CO_2/million Btu).

(iii) For liquid fossil fuels including crude, residual, and distillate oils, $F=2.476\times10^{-7}$ dscm/J (9,220 dscf/million Btu) and $F_c=0.384\times10^{-7}$ scm CO_2/J (1,430 scf CO_2/million Btu).

(iv) For gaseous fossil fuels, $F=2.347\times10^{-7}$ dscm/J (8,740 dscf/million Btu). For natural gas, propane, and butane fuels, $F_c=0.279\times10^{-7}$ scm CO_2/J (1,040 scf CO_2/million Btu) for natural gas, 0.322×10^{-7} scm CO_2/J (1,200 scf CO_2/million Btu) for propane, and 0.338×10^{-7} scm CO_2/J (1,260 scf CO_2/million Btu) for butane.

(v) For bark $F=2.589\times10^{-7}$ dscm/J (9,640 dscf/million Btu) and $F_c=0.500\times10^{-7}$ scm CO_2/J (1,840 scf CO_2/million Btu). For wood residue other than bark $F=2.492\times10^{-7}$ dscm/J (9,280 dscf/million Btu) and $F_c=0.494\times10^{-7}$ scm CO_2/J (1,860 scf CO_2/ million Btu).

(vi) For lignite coal as classified according to ASTM D388–77, 90, 91, 95, or 98a (incorporated by reference—see § 60.17), $F=2.659\times10^{-7}$ dscm/J (9,900 dscf/million Btu) and $F_c=0.516\times10^{-7}$ scm CO_2/J (1,920 scf CO_2/million Btu).

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

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

$$F_c = \frac{2.0\times10^{-5}\,(\text{pct. C})}{\text{GCV}(\text{SI units})}$$

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

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

$$F_c = \frac{321\times10^3(\%C)}{GCV(\text{English units})}$$

(i) H, C, S, N, and O are content by weight of hydrogen, carbon, sulfur, nitrogen, and oxygen (expressed as percent), respectively, as determined on the same basis as GCV by ultimate analysis of the fuel fired, using ASTM D3178–73 (Reapproved 1979), 89, or D3176–74 or 89 (solid fuels) or computed from results using ASTM D1137–53 or 75, D1945–64, 76, 91, or 96 or D1946–77 or 90 (Reapproved 1994) (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 D2015–77 for solid fuels and D1826–77 for gaseous fuels as applicable. (These two methods are incorporated by reference—see § 60.17.)

(iii) For affected facilities which fire both fossil fuels and nonfossil fuels, the F or F_c 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 F_c factors determined by paragraphs (f)(4) or (f)(5) of this section shall be prorated in accordance with the applicable formula as follows:

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

where:

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

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

n=the 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 sulfur dioxide as measured by a continuous monitoring system exceed the applicable standard under § 60.43.

(3) *Nitrogen oxides.* Excess emissions for affected facilities using a continuous monitoring system for measuring nitrogen oxides are defined as any three-hour period during which the average emissions (arithmetic average of three contiguous one-hour periods) exceed the applicable standards under § 60.44.

[40 FR 46256, Oct. 6, 1975]

EDITORIAL NOTES: 1. For FEDERAL REGISTER citations affecting § 60.45, see the List of CFR Sections Affected, which appears in the Finding Aids section of the printed volume and on GPO Access.

2. At 65 FR 61752, Oct. 17, 2000, § 60.45(f)(5)(ii) was amended by revising the words "ASTM D1826–77" to read "ASTM D1826–77 or 94." and by revising the words "ASTM D2015–77" to read "ASTM D2015–77 (Reapproved 1978), 96, or D5865–98." However, this amendment could not be incorporated because these words do not exist in paragraph (f)(5)(ii).

§ 60.46 Test methods and procedures.

(a) In conducting the performance tests required in § 60.8, 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 particulate matter, SO_2, and NO_X standards in §§ 60.42, 60.43, and 60.44 as follows:

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

$$E=C\ F_d\ (20.9)/(20.9-\%\ O_2)$$

E = emission rate of pollutant, ng/J (lb/million Btu).

C = concentration of pollutant, ng/dscm (lb/dscf).

$\%O_2$ = oxygen concentration, percent dry basis.

F_d = factor as determined from Method 19.

(2) Method 5 shall be used to determine the particular matter concentration (C) at affected facilities without wet flue-gas-desulfurization (FGD) systems and Method 5B shall be used to determine the particulate matter 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 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 is used to locate the 12 O_2 traverse points.

(3) Method 9 and the procedures in § 60.11 shall be used to determine opacity.

(4) Method 6 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 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 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 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 D2015–77 (Reapproved 1978), 96, or D5865–98 (solid fuels), D240–76 or 92 (liquid fuels), or D1826–77 or 94 (gaseous fuels) (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 particulate matter, SO_2 and NO_X may be determined by using the F_c factor, provided that the following procedure is used:

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

$$E = C\ F_c\ (100/\%CO_2)$$

where:

E=emission rate of pollutant, ng/J (lb/million Btu).

C=concentration of pollutant, ng/dscm (lb/dscf).

$\%CO_2$=carbon dioxide concentration, percent dry basis.

F_c=factor as determined in appropriate sections of Method 19.

(ii) If and only if the average F_c factor in Method 19 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 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, 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, 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 ($\bar{d}$) 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 $\bar{d}$ 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, Method 17 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 160 °C (320 °F). The procedures of sections 2.1 and 2.3 of Method 5B may be used with Method 17 only if it is used after wet FGD systems. Method 17 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 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 is used in place of the condenser (section 2.1.7) of Method 5.

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

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

(5) For Method 7, Method 7A, 7C, 7D, or 7E may be used. If Method 7C, 7D, or 7E 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, Method 3A or 3B may be used.

(7) For Method 3B, Method 3A may be used.

[54 FR 6662, Feb. 14, 1989; 54 FR 21344, May 17, 1989, as amended at 55 FR 5212, Feb. 14, 1990; 65 FR 61752, Oct. 17, 2000]

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

SOURCE: 44 FR 33613, June 11, 1979, 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:

(1) That is capable of combusting more than 73 megawatts (250 million Btu/hour) heat input of fossil fuel (either alone or in combination with any other fuel); and

(2) For which construction, modification, or reconstruction is commenced after September 18, 1978.

(b) Heat recovery steam generators that are associated with stationary combustion turbines burning fuels other than 75 percent (by heat input) or more synthetic-coal gas on a 12-month rolling average and that meet the applicability requirements of subpart KKKK of this part are not subject to this subpart. Heat recovery steam generators and the associated stationary combustion turbine(s) burning fuels containing 75 percent (by heat input) or more synthetic-coal gas on a 12-month rolling average are subject to this part and are not subject to subpart KKKK of this part. This subpart will continue to apply to all other electric utility combined cycle gas turbines that are capable of combusting more than 73 MW (250 MMBtu/h) heat input of fossil fuel in the heat recovery steam generator. If the heat recovery steam generator is subject to this subpart and the combined cycle gas turbine burn fuels other than synthetic-coal gas, only emissions resulting from combustion of fuels in the steam-generating unit are subject to this subpart. (The combustion turbine emissions are subject to subpart GG or KKKK, as applicable, of this part).

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

(d) Any change to an existing steam generating unit originally designed to fire gaseous or liquid fossil fuels, to accommodate the use of any other fuel (fossil or nonfossil) shall not bring that

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

Compliance Plan for SN-03, Maintenance Plan for SN-04, and Design Specifications for SN-16 and SN-17

Entergy

Entergy Services, Inc.
425 West Capitol Avenue
P. O. Box 551
Little Rock, AR 72203
Tel 501-377-4032
Fax 501-377-5656

AR-01-068

May 30, 2001

State of Arkansas
Department of Environmental Quality
Air Division
ATTN: Compliance Inspector Supervisor
8001 National Drive
Post Office Box 8913
Little Rock, Arkansas 72219-8913

Dear Sirs,

Subject: **Independence Plant-Permit 449-AOP-R0**
Update compliance plan for the rotary car dumper (SN-03)

In accordance with the Title V minor modification request approval received on May 17, 2001, Entergy is submitting the following revised compliance plan for the rotary car dumper for your review and approval. This plan will replace the previous compliance plan included in Appendix C of the permit. The change in the maintenance plan is necessary because the new dust suppression system is completely different from the old system. The old system was based on the use of rotoclones. The new system is based on the use of a foam spray.

Requirements include but are not limited to the following:

a. Inspect spray nozzles for pluggage.
b. Check air pressure and flow.
c. Check water pressure and water/dustfoam flow.
d. Check for adequate dustfoam chemical additive.

SPECIAL INSTRUCTIONS for PM #3641 (Printed: 6/10/03)

(M641) SN-04

AIR PERMIT requires this checklist be filed and retained. Return this checklist to the Environmental Specialist upon completion.

BAGHOUSE

CHECK AIR LEAKS ON PULSATION SYSTEM

CHECK AIR OPERATED VALVES

CHECK PIPING & SUPPORTS

CHECK AIR CYLINDERS

CHECK BAGHOUSE DOORS & SEALS

CHECK BAGS

CHECK PULSATION TUBES

CHECK DIFFUSER BLOWER BEARINGS FOR HEAT AND VIBRATION

CHECK BLOWER CASE FOR EXCESSIVE HEAT BUILDUP

CHECK INLET FILTER AND CHANGE AS NEEDED

****WRITE WR AS NEEDED***

PERFORMED BY_____ DATE_____
FILE_____ NOT FILE_____

REVIEWED BY_____ DATE_____

REVIEWED_____ DATE_____

Technical Design Data

Cooling Tower	
Manufacturer	Research-Cottrell Hamon Cooling Tower Division
Type	Natural Draft
Tower Construction	Hyperbolic
Water Flow @ 100%	360,000 gpm
Water Flow @ 50%	180,000 gpm
Fill	Asbestos Cement
Drift Eliminators	Asbestos Cement
Heat Load	4.36×10^9 btu/hr
Range	28.1°F
Wet Bulb	78°F
Dry Bulb	94°F
Cold Water	95°F
Approach	17°F
Relative Humidity	50%
Evaporative Loss (Percent of circulating water flow)	2.46%
Drift Loss (Percent of circulating water flow)	.01%

Appendix D
Acid Rain Permit Application

United States
Environmental Protection Agency
Acid Rain Program

OMB No. 2060-0258
Expires 1-31-99

Phase II NO_X Compliance Plan

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

This submission is: ☐ New ☒ Revised

STEP 1
Indicate plant name, State, and ORIS code from NADB, if applicable

Plant Name	State	ORIS Code
Independence	AR	6641

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 Type T	ID# 2 Type T	ID# Type	ID# Type	ID# Type	ID# 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)	☐	☐	☐	☐	☐	☐
(c) EPA-approved early election plan under 40 CFR 76.8 through 12/31/07 (also indicate above emission limit specified in plan)	☐	☐	☐	☐	☐	☐
(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)	NO_x Compliance - Page 2
Independence	Page 2 of 2

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 &

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	ETIENNE J. SENAC JR.	
Signature	Etienne J. Senac Jr	Date 8/1/07

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
Independence	AR	6641

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		
	Yes		
	Yes		

Plant Name (from Step 1)
Independence

Permit Requirements

Step 3
Read the standard requirements

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

(i) Submit a complete Acid Rain permit application (including a compliance plan) under 40 CFR part 72 in accordance with the deadlines specified in 40 CFR 72.30; and

(ii) Submit in a timely manner any supplemental information that the permitting authority determines is necessary in order to review an Acid Rain permit application and issue or deny an Acid Rain permit;

(2) The owners and operators of each affected source and each affected unit at the source shall:

(i) Operate the unit in compliance with a complete Acid Rain permit application or 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)
Independence

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)
Independence

Liability, Cont'd.

Step 3, 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

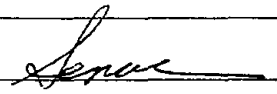
No provision of the Acid Rain Program, an Acid Rain permit application, an Acid Rain permit, or an exemption under 40 CFR 72.7 or 72.8 shall be construed as:
(1) Except as expressly provided in title IV of the Act, exempting or excluding the owners and operators and, to the extent applicable, the designated 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.

Certification

Step 4

Read the Certification statement, sign, and date

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 	Date 6-15-04

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
Independence	AR	6641

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 / Type T	ID# 2 / Type T	ID# / Type	ID# / Type	ID# / Type	ID# / 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)	☐	☐	☐	☐	☐	☐
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)	Independence

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

CERTIFICATE OF SERVICE

I, Cynthia Hook, hereby certify that a copy of this permit has been mailed by first class mail to Entergy Arkansas, Inc. - Independence Plant, 555 Point Ferry Road, Newark, AR, 72562, on December 7, 2007

Cynthia Hook

Cynthia Hook, AAII, Air Division