

STATEMENT OF BASIS

For the issuance of Draft Air Permit # 0263-AOP-R17 AFIN: 35-00110

1. PERMITTING AUTHORITY:

Division of Environmental Quality  
5301 Northshore Drive  
North Little Rock, Arkansas 72118-5317

2. APPLICANT:

Entergy Arkansas, LLC. - White Bluff Plant  
1100 White Bluff Road  
Redfield, Arkansas 72132

3. PERMIT WRITER:

Shawn Hutchings

4. NAICS DESCRIPTION AND CODE:

NAICS Description: Fossil Fuel Electric Power Generation  
NAICS Code: 221112

5. ALL SUBMITTALS:

The following is a list of ALL permit applications included in this permit revision.

Date of Application	Type of Application (New, Renewal, Modification, Deminimis/Minor Mod, or Administrative Amendment)	Short Description of Any Changes That Would Be Considered New or Modified Emissions
4/28/2022	Renewal	Additional Bulldozer on coal storage.

6. REVIEWER'S NOTES:

Entergy Arkansas, Inc. - White Bluff (AFIN: 35-00110) located in Redfield, Arkansas is a two-unit electric generating station which generates electric energy for sale. This permit is the renewal for the facility. In this renewal the facility is: Adding the ability to operate an additional coal yard dozer, revising specific conditions with regards to applicable CO limits for SN-01 and SN-02 due to completion of a previous project to install Low NO<sub>x</sub> Burners and Separated Overfire Air, and adding specific conditions requiring Unit 1 (SN-01) and Unit 2 (SN-02) each meet a SO<sub>2</sub> emission limit of 0.6 lb/MMBtu based on a 30-boiler-operating day rolling average and that each unit to cease firing coal by December 31, 2028. Permitted emission rates increased 5 tpy of PM<sub>10</sub> and

0.89 tpy of HCl. All other pollutants permitted rates rates remained the same or decreased.

The permittee requested revisions of Specific Condition 7 to clearly define the reporting obligations for excess emissions caused by startups, shutdowns, and malfunctions in relation to NSPS Subpart D. That condition of the permit does not cite NSPS Subpart D as its basis. Specific Condition 7 stands to show compliance with the facility’s Title V limits outside of the requirements of NSPS Subpart D. The changes were not made.

7. COMPLIANCE STATUS:

The following summarizes the current compliance of the facility including active/pending enforcement actions and recent compliance activities and issues.

There are no known enforcement issues with the facility.

8. PSD/GHG APPLICABILITY:

a) Did the facility undergo PSD review in this permit (i.e., BACT, Modeling, etc.)? N  
 If yes, were GHG emission increases significant? N

b) Is the facility categorized as a major source for PSD? Y  
 • *Single pollutant ≥ 100 tpy and on the list of 28 or single pollutant ≥ 250 tpy and not on list*

If yes for 8(b), explain why this permit modification is not PSD. Emission increase was below PSD major modification thresholds.

9. SOURCE AND POLLUTANT SPECIFIC REGULATORY APPLICABILITY:

Source	Pollutant	Regulation (NSPS, NESHAP or PSD)
Facility	Asbestos	40 CFR Part 61, Subpart M – <i>National Emission Standard for Asbestos</i>
SN-01 SN-02	PM SO <sub>2</sub> NO <sub>x</sub> CO <sub>2</sub> Opacity	40 CFR Part 60, Subpart D – <i>Standards of Performance for Fossil-Fuel-Fired Steam Generators for Which Construction is Commenced After August 17, 1971</i>
SN-01 SN-02	PM Opacity	40 CFR Part 64 – Compliance Assurance Monitoring
SN-01 SN-02	SO <sub>2</sub> /NO <sub>x</sub>	40 CFR Part 72, Subpart A-D – Permits Regulation (Acid

Source	Pollutant	Regulation (NSPS, NESHAP or PSD)
		Rain)
SN-01 SN-02	HAPS	40 CFR Part 63, Subpart UUUUU – <i>National Emission Standards for Hazardous Air Pollutants: Coal- and Oil-Fired Electric Utility Steam Generating Units</i>
SN-01 SN-02	CO	40 CFR § 52.21 <i>Prevention of significant deterioration of air quality</i>
SN-01 SN-02 SN-05	SO <sub>2</sub> NO <sub>x</sub> PM	40 CFR § 52.173 <i>Visibility protection</i>
SN-05	Filterable PM CO HCl Mercury	40 CFR Part 63, Subpart DDDDD – <i>National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters</i>
SN-21	Operating standards only	40 CFR Part 63, Subpart ZZZZ – <i>National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines</i> 40 CFR Part 60, Subpart IIII – <i>Standards of Performance for Stationary Compression Ignition Internal Combustion Engines</i>

10. UNCONSTRUCTED SOURCES:

Unconstructed Source	Permit Approval Date	Extension Requested Date	Extension Approval Date	If Greater than 18 Months without Approval, List Reason for Continued Inclusion in Permit
None				

11. PERMIT SHIELD – TITLE V PERMITS ONLY:

Did the facility request a permit shield in this application? N

(Note - permit shields are not allowed to be added, but existing ones can remain, for minor modification applications or any Rule 18 requirement.)

12. COMPLIANCE ASSURANCE MONITORING (CAM) – TITLE V PERMITS ONLY:

List sources potentially subject to CAM because they use a control device to achieve compliance and have pre-control emissions of at least 100 percent of the major source level. List the pollutant of concern and a brief summary of the CAM plan (temperature monitoring, CEMs, opacity monitoring, etc.) and frequency requirements of § 64.

Source	Pollutant Controlled	Cite Exemption or CAM Plan Monitoring and Frequency
01 02	PM	Opacity COMs

13. EMISSION CHANGES AND FEE CALCULATION:

See emission change and fee calculation spreadsheet in Appendix A.

14. AMBIENT AIR EVALUATIONS:

The following are results for ambient air evaluations or modeling.

a) NAAQS

A NAAQS evaluation is not required under the Arkansas State Implementation Plan, National Ambient Air Quality Standards, Infrastructure SIPs and NAAQS SIP per Ark. Code Ann. § 8-4-318, dated March 2017 and the DEQ Air Permit Screening Modeling Instructions.

b) Non-Criteria Pollutants:

The following analysis was included in the SOB for R16. There were no increases associated with this permit.

1<sup>st</sup> Tier Screening (PAER)

Estimated hourly emissions from the following sources were compared to the Presumptively Acceptable Emission Rate (PAER) for each compound. The Department has deemed the PAER to be the product, in lb/hr, of 0.11 and the Threshold Limit Value (mg/m<sup>3</sup>), as listed by the American Conference of Governmental Industrial Hygienists (ACGIH).

Pollutant	TLV (mg/m <sup>3</sup> )	PAER (lb/hr) = 0.11 × TLV	Proposed lb/hr	Pass?
Lead	0.05	0.0055	0.7	N

Pollutant	TLV (mg/m <sup>3</sup> )	PAER (lb/hr) = 0.11 × TLV	Proposed lb/hr	Pass?
Acetaldehyde**	45.0409	4.954499	0.6204	Y
Acrolein*	0.229284	0.025221	0.3152	N
Arsenic	0.01	0.0011	0.4435	N
Benzene	1.597342	0.175708	1.4136	N
Benzyl Chloride	5.176	0.56934	0.7560	N
Beryllium	0.00005	5.5E-06	0.0232	N
Cadmium	0.002	0.00022	0.0556	N
Carbon Disulfide	3.11411	0.342552	0.1404	Y
2-Chloroacetophenone	0.316135	0.034775	0.0076	Y
Chloroform	48.82618	5.370879	0.0637	Y
Chromium	0.5	0.055	0.2814	N
Chromium VI	0.01	0.0011	0.0853	N
Cobalt	0.02	0.0022	0.1080	N
Cyanide**	5.195951	0.571555	2.7	N
Dimethyl Sulfate	0.515746	0.056732	0.0518	Y
Ethylene Dichloride	40.47444	4.452188	0.0432	Y
Formaldehyde**	0.371779	0.040896	0.7857	N
Hydrogen Chloride**	2.983231	0.328155	1296.00	N
Hydrogen Fluoride	0.409202	0.045012	157.50	N
Isophorone**	28.2638	3.109018	0.6264	Y
Manganese	0.2	0.022	0.5303	N
Mercury	0.01	0.0011	0.0902	N
Methyl Chloride	103.2515	11.35767	0.5724	Y
Methyl Hydrazine	0.018843	0.002073	0.1836	N
Nickel	0.1	0.011	0.3030	N
Phenol	19.24335	2.116769	0.0173	Y
POM*	0.2	0.022	0.0548	N
Propionaldehyde	47.52556	5.227812	0.4104	Y
Selenium	0.2	0.022	1.4068	N
Sulfuric Acid H2SO4	0.2	0.022	26.9924	N

\* TLV for coal tar pitch volatiles.

\*\* Ceiling Limit TLV.

## 2<sup>nd</sup> Tier Screening (PAIL)

There are no changes to hourly HAP emission rates in Permit #0263-AOP-R11. Modeling results are taken from issuance of Permit #0263-AOP-R10.

AERMOD air dispersion modeling was performed on the estimated hourly emissions from the following sources, in order to predict ambient concentrations beyond the property boundary. The Presumptively Acceptable Impact Level (PAIL) for each

compound has been deemed by the Department to be one one-hundredth of the Threshold Limit Value as listed by the ACGIH.

Pollutant	PAIL ( $\mu\text{g}/\text{m}^3$ ) = 1/100 of Threshold Limit Value	Modeled Concentration ( $\mu\text{g}/\text{m}^3$ )	Pass?
Lead	0.5	0.0121	Y
Acrolein	2.292843	0.001082	Y
Arsenic	0.1	0.00165	Y
Benzene	15.97342	0.012893	Y
Benzyl Chloride	51.7586	2.0413E-03	Y
Beryllium	0.0005	0.000402	Y
Cadmium	0.02	0.00049	Y
Chromium	5	0.001099	Y
Chromium VI	0.1	0.00023	Y
Cobalt	0.2	0.000292	Y
Cyanide	51.95951	0.00729	Y
Formaldehyde	3.717791411	4.3318E-02	Y
Hydrogen Chloride	29.83231	3.499433	Y
Hydrogen Fluoride	4.092025	0.437429	Y
Manganese	2	0.002111	Y
Mercury	0.1	0.000583	Y
Methyl Hydrazine	0.188425	0.000496	Y
Nickel	1	0.001157	Y
POM	2	0.002853299	Y
Selenium	2	0.005496	Y
Sulfuric Acid ( $\text{H}_2\text{SO}_4$ )	2	1.066184	Y

a)  $\text{H}_2\text{S}$  Modeling:

The facility does not have any  $\text{H}_2\text{S}$  emissions.

#### 15. CALCULATIONS:

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments
SN-01	Coal Fired: NSPS Limits, prior permits, AP-42 (Tables 1.1-4, 1.1-5, 1.1-13, 1.1-14, 1.1-15,	Coal Fired: CO-185 ppm limit ( in 0263-AOP-R9) SO <sub>2</sub> : 0.6 lb/MMBTU	ESP	99.5%	PM also limited to 0.1 lb/mmbtu by NSPS – this is higher than permitted PM rates

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments
	1.1-17 and 1.1-18)  Fuel Oil Fired: NSPS Limits Estimated Emissions AP-42 (Tables 1.3-1, 1.3-2, 1.3-3, 1.3-8, 1.3-9, and 1.3-10)	NO <sub>x</sub> : 0.15 lb/MMBTU I hour AP-42 VOC Lead: 0.00042 lb/ton HAPs: various see AP-42  Fuel Oil Fired: AP-42 Lead: 9 lb/10 <sup>12</sup> BTU HAPs: various see AP-42			
	NESHAP UUUUU  AP-42, 1.1-5	HCl: 2.0E-03 lb/MMBTu	None	N/A	4,600,000 ton/yr 20 MMBtu/ton 2x safety factor This EF is used to lower facility's annual fee
SN-02	Coal Fired: NSPS Limits AP-42 (Tables 1.1-4, 1.1-5, 1.1-13, 1.1-14, 1.1-15, 1.1-17 and 1.1-18)  Fuel Oil Fired: NSPS Limits Estimated Emissions AP-42 (Tables 1.3-1, 1.3-2, 1.3-3, 1.3-8, 1.3-9, and 1.3-10)	Coal Fired: CO-185 ppm limit ( in 0263-AOP-R9) SO <sub>2</sub> : 0.6 lb/MMBTU NO <sub>x</sub> : 0.15 lb/MMBTU I hour AP-42 VOC Lead: 0.00042 lb/ton HAPs: various see AP-42  Fuel Oil Fired: AP-42 Lead: 9 lb/10 <sup>12</sup> BTU HAPs: various	ESP	99.5%	PM also limited to 0.1 lb/mmBtu by NSPS – this is higher than permitted PM rates

SN	Emission Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments
		see AP-42			
	NESHAP UUUUU  AP-42, 1.1-5	HCl: 2.0E-03 lb/MMBtu	None	N/A	4,600,000 ton/yr 20 MMBtu/ton 2x safety factor This EF is used to lower facility's annual fee
SN-03	Permit Limits  AP-42 13.2.4-3 Equation 1	See AP-42 13.2.4-3 Equation 1	Enclosure Chemical Suppressant	50% 90%	VOC based on 1.42% (0.12 lb/gal) with maximum hourly of 91.5 lb/hr and annual of 300,000 lb/yr.
SN-04	Permit Limits  AP-42 13.2.4-3 Equation 1	See AP-42 13.2.4-3 Equation 1	Baghouse  Enclosure	99.98% PM 99.86% PM <sub>10</sub>	Two Silos (North and South)
SN-05	AP-42 Tables 1.3-1, 1.3- 2, 1.3-3, 1.3-8, 1.3-9, and 1.3-10	Filterable PM/PM <sub>10</sub> : 2 lb/1000 gal Condensable PM/PM <sub>10</sub> : 1.3 lb/1000 gal SO <sub>2</sub> : 78.5 lb/1000 gal VOC: 0.252 lb/1000 gal CO: 5 lb/1000 gal NO <sub>x</sub> : 24 lb/1000 gal Lead: 9 lb/10 <sup>12</sup> BTU HAPs: various see AP-42	N/A	N/A	---
SN-06	AP-42 13.2.4-3 Equation 1 Table 11.9-1 13.2.1.3 Equation 1	Various Equations Used See AP- 42	Enclosures  Chemical  Suppressant Baghouse	Up to 80%  90%  Up to 99.9% PM	VOC based on 1.42% (0.12 lb/gal) with maximum hourly of 91.5 lb/hr and annual of 300,000 lb/yr.



SN	Emission Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments
	13.2.2-2 Equation 1			99.8% PM <sub>10</sub>	Haul roads and Landfill surfaces dust suppressant is permitted to contain up to 1.0 lb VOC/gal
SN-07	Tanks	---	N/A	N/A	112,000,000 gal/yr throughput
SN-17	AP-42 Table 13.4-1	PM: 0.073 lb drift/kgal PM <sub>10</sub> : 0.073 lb drift/kgal	N/A	N/A	Based on 22,125 kgal/hr circulating water flow and a total dissolved solids content of 2,800 ppm.
SN-18	AP-42 Table 13.4-1	PM: 0.073 lb drift/kgal PM <sub>10</sub> : 0.073 lb drift/kgal	N/A	N/A	Based on 22,125 kgal/hr circulating water flow and a total dissolved solids content of 2,800 ppm.
SN-19	AP-42 13.2.4 Equation 1 13.2.1 Equation 1 13.2.2 Equation 1a	Various Equation Used See AP-42	Chemical Suppressant on Unpaved Road  Wetting and Sweeping Paved Road	90%  95%	6 transfer points: 320 tons coal/hr and 2,733,120 tons coal/yr Paved Roads: 1.9 miles; 12 trips/hr (haul trucks); 2 trips/hr (control equipment) 259,019.4 VMT/yr; 0.99 g silt/m <sup>2</sup> (uncontrolled) Unpaved Roads: 0.25 miles; 12 trips/hr (haul trucks); 1 trip/hr (control equipment) 34,081.5 VMT/yr; 6.8% silt
SN-20	MSDS	6.8 lb VOC/gal	N/A	N/A	1 gal/hr 4,000 gal/yr
SN-21	AP-42	Table 3.4.1 through 3.4-4	None	None	2160 hours annual operation
SN-	Manufacturer for	Table 3.3-2 for	None	None	3000 hours annual

SN	Emission Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments
22	Criteria Pollutants AP-42 for HAPs	HAPs			operation
SN-24	AP-42, 3.2	PM/PM <sub>10</sub> : 0.0194 lb/MMBtu SO <sub>2</sub> : 0.000588 lb/MMBtu	None	None	30 kW 64.1 HP 0.415 MMBtu/hr 500 hours per calendar year
	NSPS JJJJ	VOC/NO <sub>x</sub> : 10 g/HP-hr CO: 387 g/HP- hr	None	None	
SN-25	TANKS	a. lb/hr VOC 0.7 tpy VOC	None	None	16,000 gal/yr throughput

## 16. TESTING REQUIREMENTS:

The permit requires testing of the following sources.

SN	Pollutants	Test Method	Test Interval	Justification
01 and 02	CO	10	Every 5 years	To demonstrate compliance with CO emission rates.
01 and 02	PM	5 and 202	Every year	To demonstrate compliance with PM emission rates.
01 and 02	PM <sub>10</sub>	201A and 202	Every year	To demonstrate compliance with PM <sub>10</sub> emission rates.
SN-05	PM (filterable)	Method 5 or 17	Annually	Boiler MACT*
	TSM	Method 29	Annually	Boiler MACT*
	HCl	Method 26 or 26A	Annually	Boiler MACT*
	Mercury	Method 29, 30A, or 30 B	Annually	Boiler MACT*
	CO	Method 10	Annually	Boiler MACT*

## 17. MONITORING OR CEMS:

The permittee must monitor the following parameters with CEMS or other monitoring equipment (temperature, pressure differential, etc.)

SN	Parameter or Pollutant to be Monitored	Method (CEM, Pressure Gauge, etc.)	Frequency	Report (Y/N)
01 & 02	SO <sub>2</sub> CO <sub>2</sub> NO <sub>x</sub> Opacity	CEMS	Continuously	Y

## 18. RECORDKEEPING REQUIREMENTS:

The following are items (such as throughput, fuel usage, VOC content, etc.) that must be tracked and recorded.

SN	Recorded Item	Permit Limit	Frequency	Report (Y/N)
01, 02	SO <sub>2</sub> hourly emissions	10,440.0 lb/hr	Continuously	Y
01, 02	SO <sub>2</sub> Emissions	1.2 lb/MMBtu	Continuously	Y
01, 02	SO <sub>2</sub> Emissions after Aug 6, 2021	0.60 lb/MMBtu per rolling 30-boiler-operating-day averaging period	Continuously	Y
01, 02	NO <sub>x</sub> hourly emissions	6,090.0 lb/hr	Continuously	Y
01, 02	NO <sub>x</sub> Emissions	0.7 lb/MMBtu	Continuously	Y
01, 02	Opacity	20%	Continuously	Y
01, 02	Quarterly Reports	N/A	Quarterly	Y
01, 02	Operating Scenario Log	N/A	As Needed	N
01, 02	SO <sub>2</sub> annual emissions	91,454.4 tpy	Monthly	Y
01, 02	NO <sub>x</sub> annual emissions	53,348.4 tpy	Monthly	Y
01, 02	Coal Sulfur and Ash Contents Documentation and (if needed) Calculations	See Specific Condition #26	Annually	N
01, 02, & 05	Sulfur Content of fuel oil	0.5% by weight	Per shipment	N

SN	Recorded Item	Permit Limit	Frequency	Report (Y/N)
05	Opacity	20%	Weekly	N
05	Record of when this source is operated	N/A	As Needed	N
06A	Opacity	20%	Weekly	N
06B	Opacity	5% off-site	Weekly	N
06C	Dust Suppressant use and VOC content	10,000 gallons/yr No more than 1.0 lb VOC/gal	Monthly	Y
03 & 06A	Dust Suppressant Chemical Foam Spray Usage	2.2 tons/12 month	monthly	Y
03 & 06A	MSDS for VOC Content of Chemical Foam Spray	1.42% by weight	as needed	N
03 & 06A	MSDS for HAP Content of Chemical Foam Spray	no HAPs	as needed	N
06	Fly ash trucks vehicle miles traveled on paved roads	63,586 VMT/yr	Monthly	Y
06	Fly ash trucks vehicle miles traveled on unpaved roads	21,507 VMT/yr	Monthly	Y
06	Operation of Coal Yard Dozers	12,000 hours per yr (combined)	Monthly	Y
06	Water wagon hours of operation	4,000 hours/yr	Monthly	Y
06	Cat Scraper hours of operation	1,500 hours/yr	Monthly	Y
04	Opacity	20%	Daily	Y
04	Log of baghouse maintenance inspections	N/A	Semi-annually	N
07	Fuel Oil Throughput	112,000,000 gal/yr	Monthly	Y
17, 18	Total dissolved	2,800 ppm	Weekly	N

SN	Recorded Item	Permit Limit	Frequency	Report (Y/N)
	solids			
17, 18	Circulating water	22,125 kgal/hr	Annually	N
19	Coal Throughput	2,733,120 tons/yr	Monthly	Y
19	Vehicle miles traveled on paved roads from barge to coal pile	259,019.4 VMT/yr	Monthly	Y
19	Vehicle miles traveled on unpaved roads from barge to coal pile	34,081.5 VMT/yr	Monthly	Y
19	MSDS for VOC Content of chemical suppressant	No VOC	As Needed	N
19	MSDS for HAP Content of chemical suppressant	No HAP	As Needed	N
20	MSDS for VOC content	6.8 lb/gal	As Needed	N
20	Solvent Throughput	4,000 gal/yr	Monthly	Y
21	Hours of operation	2160 hrs/12 month	Monthly	Y
22	Hours of operation	3000 hrs/12 month	Monthly	Y
24	Hours of operation	500 hours per calendar year	Monthly	N
25	Fuel Throughput	16,000 gallons/yr	Monthly	Y

## 19. OPACITY:

SN	Opacity	Justification for limit	Compliance Mechanism
01, 02	20%, 27%	NSPS limit, Department Guidance	COM
01, 02	20%, 60%	State limit	COM
01, 02	20%	CAM (1-hr and 3-hr averages)	COM
03	20%	Department Guidance	Water/Chemical Foam Spray

SN	Opacity	Justification for limit	Compliance Mechanism
04	20%	Department Guidance	Daily Observation
05	20%	Department Guidance	Weekly Observation
06A	20%	Department Guidance	Weekly Observation
06B	5% off-site	Department Guidance	Weekly Observation
17, 18	20%	Department Guidance	Operate within Design Specification
19	5% off-site	Department Guidance	Inspections
21	20%	Department Guidance	Once per year and daily if operated more than 24 hours
22	20%	Department Guidance	Once per year and daily if operated more than 24 hours
24	5%	Department Guidance	Only combusting propane

20. DELETED CONDITIONS:

Former SC	Justification for removal
24, 68	Pre low NOx Buner condition no longer applicable.
30	Establishes compliance date for Subpart UUUUU in 2016. No longer needed.

21. GROUP A INSIGNIFICANT ACTIVITIES:

The following is a list of Insignificant Activities including revisions by this permit.

Source Name	Group A Category	Emissions (tpy)						HAPs	
		PM/PM <sub>10</sub>	SO <sub>2</sub>	VOC	CO	NO <sub>x</sub>	Single	Total	
C7 Kerosene Fired Space Heater (12)	A-1	3.20E-02	4.10E-01	6.94E-03	4.90E-02	1.80E-01			
C8 Headwaters Diesel Heaters (3)	A-1	3.20E-02	6.90E-01	6.94E-03	4.90E-02	1.80E-01			
C9 Diesel-fired Glycol Heaters (2)	A-1	1.90E-02	1.20E-03	4.16E-03	2.90E-02	1.20E-01			
A-1 Total		8.35E-02	1.11E+00	1.80E-02	1.27E-01	4.67E-01			
T6 Unit 1 FD Fan Hydraulic Reservoir	A-2			1.43E-07					
T7 Unit 1 FD Fan Lube Oil Reservoir	A-2			1.45E-07					
T8 Unit 1 ID Fan	A-2			6.99E-08					

Hydraulic Oil Reservoir								
T9 Unit 1 ID Fan Motor Oil Reservoir	A-2			3.29E-05				
T10 Unit 1 ID Fan Lube Oil Reservoir	A-2			6.99E-08				
T15 Unit 2 ID Fan Hydraulic Oil Reservoir	A-2			6.99E-08				
T16 Unit 2 ID Fan Motor Oil Reservoir	A-2			6.99E-08				
T17 Unit 2 ID Fan Lube Oil Reservoir	A-2			6.99E-08				
T18 Unit 2 FD Fan Lube Oil Reservoir	A-2			1.43E-07				
T19 Unit 2 FD Fan Hydraulic Reservoir	A-2			1.43E-07				
T96 Unit-1 Lube Purifier/Centrifuge	A-2			6.99E-08				
T97 Unit-2 Lube Purifier/Centrifuge	A-2			6.99E-08				
T98 Vacuum Pump Oil Separator (2)	A-2			1.40E-07				
T99 No. 1A & 1B BFPT Lube Oil Reservoir	A-2			1.43E-07				
T100 No. 2A & 2B BFPT Lube Oil Reservoir	A-2			1.43E-07				
T114 Bowl Mill Lube Oil Storage Drums (4)	A-2			8.26E-07				
T123 Stacker/Reclaimer Lube Oil Storage Tank	A-2			1.04E-06				
T124 Vacuum Pump Lube Oil Storage Tank #20 (2)	A-2			3.07E-06				
T125 Bulk Storage Tank #25 and #26	A-2			1.75E-06				
T126 APH Gear Box Lube Oil Tanks (2)	A-2			8.35E-07				
T130 Headwaters Rotella T3 15W40 Oil Tank	A-2			4.69E-07				

T131 Lube Oil House 55 gal drums (10)	A-2			9.78E-07				
A-2 Total			4.33E-05					
T4 Unit 1 EHC Reservoir	A-3			2.68E-06				
T5 No. 1 A & 1B BFPT Lube Oil Reservoir	A-3			3.51E-06				
T13 Unit 2 EHC Reservoir	A-3			2.75E-06				
T14 No. 2A & 2B BFPT Lube Oil Reservoir	A-3			3.82E-02				
T21 Used Oil Double Walled Storage Tank	A-3			2.79E-05				
T22 Bulk Used Oil Storage Tank #13, #13, #14, and #15 (4)	A-3			7.73E-06				
T24 Mobile Used Oil Storage Tank	A-3			1.34E-05				
T26 10,000 gal No.2 Fuel Oil Storage Tank	A-3			2.27E-02				
T27 Mobile Diesel Fuel Storage Tank	A-3			1.12E-06				
T29 SPCC #11 - Emergency Fire Pump Diesel Fuel Storage Tank	A-3			1.65E-06				
T30 Bulk Storage Tank #12 - Emergency Diesel Generator Fuel Tank	A-3			1.44E-06				
T31 Portable Kerosene Storage Skid Tank	A-3			1.48E-04				
T94 Unit 1 Hydrogen Seal Tank	A-3			1.70E-04				
T95 Unit 2 Hydrogen Seal Tank	A-3			1.70E-04				
T121 RCD Wheel Clamp Hydraulic Oil Reservoir	A-3			4.67E-05				
T122 RCD Car Clamp Hydraulic Oil Reservoir	A-3			1.71E-04				



T113 Miscellaneous Paint Containers Storage	A-3			9.42E-05				
T115 Bulk Storage Tank #9 and #10 - Coal Yard Lube Oil, Antifreeze, and Hydraulic Fluid Storage Tanks (3)	A-3			1.23E-03				
T116 Vehicle Maintenance Lube Oil, Antifreeze and Hydraulic Fluid Storage Tanks (3)	A-3			1.23E-03				
T120 Main Oil/Water Separator Used Oil Vault	A-3			2.60E-03				
T127 Skid Mounted Horizontal Diesel Tank	A-3			1.73E-03				
T128 Headwaters 1,000 Gal Diesel Tank	A-3			9.61E-04				
T129 Headwaters Used Oil Tank	A-3			3.07E-04				
T132 1,000 gal No.2 Fuel Oil Above Ground Storage Tank	A-3			5.19E-04				
A-3 Total				7.03E-02				
T2 Unit 1 Turbine Lube Oil Storage Tank	A-13			2.10E-07				
T3 Unit 1 Turbine Lube Oil Reservoir	A-13			8.86E-08				
T11 Unit 2 Turbine Lube Oil Storage Tank	A-13			2.10E-07				
T12 Unit 2 Turbine Lube Oil Reservoir	A-13			8.86E-08				
T71 EHC Fluid Storage	A-13			1.22E-11				
X15 Unleaded Gasoline Dispensing Station	A-13			2.43E-01				
X16 Diesel	A-13			4.87E-				

Dispensing Station (2)				01				
X22 Sand Blasting Booth	A-13	4.38E-01						
X31 Unit 1 ESP Transformer/Rectifiers	A-13							
X32 Unit 2 ESP Transformer/Rectifiers	A-13							
X33 Spare Transformers / Rectifiers	A-13							
X34 Transformers	A-13							
X35 Switchyard Transformers & Oil Circuit Breakers	A-13							
X36-X54 AC Chiller Units	A-13							
X55 Aerosol Lubricant Fugitives	A-13			4.38E-02				
X56 Aerosol Degreaser Fugitives	A-13			1.89E-01				
M60 Unit 1 Economizer Ash Silo	A-13	1.16E-01						
M61 Unit 2 Economizer Ash Silo	A-13	1.16E-01						
X57 Unit 1 AC Silo	A-13	3.38E-03						
X58 Unit 2 AC Silo	A-13	3.38E-03						
X62 17 Gal Ultrasonic Parts Washer	A-13			6.94E-01				
X63 Powdered Halide Hoppers (2)	A-13	7.38E-05						
X64 Bottom Ash Bunker System	A-13	4.02E-01						
A-13 Total		1.08		1.66				

22. VOIDED, SUPERSEDED, OR SUBSUMED PERMITS:

The following is a list of all active permits voided/superseded/subsumed by the issuance of this permit.

Permit #
0263-AOP-R16

## APPENDIX A – EMISSION CHANGES AND FEE CALCULATION

## Fee Calculation for Major Source

Revised 03-11-16

Entergy Arkansas, LLC. - White Bluff Plant  
 Permit #: 0263-AOP-R17  
 AFIN: 35-00110

\$/ton factor	27.27	Annual Chargeable Emissions (tpy)	13328.43
Permit Type	Modification	Permit Fee \$	1000

Minor Modification Fee \$	500
Minimum Modification Fee \$	1000
Renewal with Minor Modification \$	500
Check if Facility Holds an Active Minor Source or Minor Source General Permit	<input type="checkbox"/>
If Hold Active Permit, Amt of Last Annual Air Permit Invoice \$	0
Total Permit Fee Chargeable Emissions (tpy)	-0.61
Initial Title V Permit Fee Chargeable Emissions (tpy)	

*HAPs not included in VOC or PM:*

*Chlorine, Hydrazine, HCl, HF, Methyl Chloroform, Methylene Chloride, Phosphine, Tetrachloroethylene, Titanium Tetrachloride*

*Air Contaminants:*

*All air contaminants are chargeable unless they are included in other totals (e.g., H2SO4 in condensable PM, H2S in TRS, etc.)*

Pollutant (tpy)	Check if Chargeable Emission	Old Permit	New Permit	Change in Emissions	Permit Fee Chargeable Emissions	Annual Chargeable Emissions
PM		6,607.10	3404.2	-3202.9		
PM <sub>10</sub>		6,414.90	6419.9	5	0	4000
PM <sub>2.5</sub>				0		
SO <sub>2</sub>		91,877.00	46149.8	-45727.2	0	4000
VOC		335.3	333.8	-1.5	-1.5	333.8
CO		28,549.80	11866.4	-16683.4		
NO <sub>x</sub>		53,521.90	53521.9	0	0	4000
Lead	<input type="checkbox"/>	2.1	2.01	-0.09		

















