

STATEMENT OF BASIS

For the issuance of Air Permit # 0263-AOP-R11 AFIN: 35-00110

1. PERMITTING AUTHORITY:

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

2. APPLICANT:

Entergy Arkansas, Inc. - White Bluff
1100 White Bluff Road
Redfield, Arkansas 72132

3. PERMIT WRITER:

Alexander Sudibjo

4. NAICS DESCRIPTION AND CODE:

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

5. ALL SUBMITTALS:

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
1/27/2017	Renewal	N/A

6. REVIEWER'S NOTES:

This is a Title V renewal for this permit. No physical changes or changes in the method of operation are requested. This renewal includes revisions to emission estimates based on updated emission factors and calculation methodologies including a revision of the emission estimate for the emergency fire pump (SN-22) to reflect the engine's actual block capacity of 365 HP instead of the 323 HP which was provided by the manufacturer previously. The facility's permitted annual emissions are increasing by 1.9 tpy VOC, 53.7 tpy CO, 1.1 tpy NOx. The facility's permitted annual emissions are decreasing by 43.8 tpy SO₂.

7. COMPLIANCE STATUS:

As of January 27, 2017, there are no compliance issues with the facility.

8. PSD APPLICABILITY:

a) Did the facility undergo PSD review in this permit (i.e., BACT, Modeling, etc.)? 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, explain why this permit modification is not PSD. There are no physical changes or changes in the method of operation for any of the equipment on the site.

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 ₂ NO _x CO ₂ 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 ₂ /NO _x	40 CFR Part 72, Subpart A-D – Permits Regulation (Acid 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-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</i>

Source	Pollutant	Regulation (NSPS, NESHAP or PSD)
		<i>Performance for Stationary Compression Ignition Internal Combustion Engines</i>

10. EMISSION CHANGES AND FEE CALCULATION:

See emission change and fee calculation spreadsheet in Appendix A.

11. AMBIENT AIR EVALUATIONS:

a) Reserved.

b) Non-Criteria Pollutants:

Based on Department procedures for review of non-criteria pollutants, emissions of non-criteria pollutants are below thresholds of concern.

This permit modification did not any require revision to the previous modeling demonstration. For reference modeling information that was included in the previous permit action is reference.

1st 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/m³), as listed by the American Conference of Governmental Industrial Hygienists (ACGIH).

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

Pollutant	TLV (mg/m ³)	PAER (lb/hr) = 0.11 × TLV	Proposed lb/hr	Pass?
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 H ₂ SO ₄	0.2	0.022	26.9924	N

* TLV for coal tar pitch volatiles.

** Ceiling Limit TLV.

2nd 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 (µg/m ³) = 1/100 of Threshold Limit Value	Modeled Concentration (µg/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

Pollutant	PAIL ($\mu\text{g}/\text{m}^3$) = 1/100 of Threshold Limit Value	Modeled Concentration ($\mu\text{g}/\text{m}^3$)	Pass?
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 (H_2SO_4)	2	1.066184	Y

12. CALCULATIONS:

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments
SN-01	<p>Coal Fired: NSPS Limits, prior permits, 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)</p> <p>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)</p>	<p>Coal Fired: CO-185 ppm limit (in 0263-AOP-R9) SO₂: 1.2 lb/MMBTU NO_x: 0.15 lb/MMBTU I hour AP-42 VOC Lead: 0.00042 lb/ton HAPs: various see AP-42</p> <p>Fuel Oil Fired: AP-42 Lead: 9 lb/10¹² BTU HAPs: various see AP-42</p>	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
SN-02	<p>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)</p> <p>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)</p>	<p>Coal Fired: CO-185 ppm limit (in 0263-AOP-R9) SO₂: 1.2 lb/MMBTU NO_x: 0.15 lb/MMBTU I hour AP-42 VOC Lead: 0.00042 lb/ton HAPs: various see AP-42</p> <p>Fuel Oil Fired: AP-42 Lead: 9 lb/10¹² BTU HAPs: various see AP-42</p>	ESP	99.5%	PM also limited to 0.1 lb/mmBtu by NSPS – this is higher than permitted PM rates
SN-03	<p>Permit Limits AP-42 13.2.4-3 Equation 1</p>	<p>See AP-42 13.2.4-3 Equation 1</p>	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	<p>Permit Limits AP-42 13.2.4-3 Equation 1</p>	<p>See AP-42 13.2.4-3 Equation 1</p>	Baghouse Enclosure	99.98% PM 99.86% PM ₁₀	Two Silos (North and South)
SN-05	<p>AP-42 Tables 1.3-1, 1.3-2, 1.3-3, 1.3-8, 1.3-9, and 1.3-10</p>	<p>Filterable PM/PM₁₀: 2 lb/1000 gal Condensable PM/PM₁₀: 1.3 lb/1000 gal SO₂: 78.5 lb/1000 gal VOC: 0.252</p>	N/A	N/A	---

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments
		lb/1000 gal CO: 5 lb/1000 gal NO _x : 24 lb/1000 gal Lead: 9 lb/10 ¹² BTU HAPs: various see AP-42			
SN-06	AP-42 13.2.4-3 Equation 1 Table 11.9-1 13.2.1.3 Equation 1 13.2.2-2 Equation 1	Various Equations Used See AP-42	Enclosures Chemical Suppressant Baghouse	Up to 80% 90% Up to 99.9% PM 99.8% PM ₁₀	VOC based on 1.42% (0.12 lb/gal) with maximum hourly of 91.5 lb/hr and annual of 300,000 lb/yr. 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-14	Tanks	---	N/A	N/A	16,000 gal/yr throughput
SN-15	Tanks	---	N/A	N/A	180,000 gal/yr throughput
SN-16	Tanks	---	N/A	N/A	16,000 gal/yr throughput
SN-17	AP-42 Table 13.4-1	PM: 0.073 lb drift/kgal PM ₁₀ : 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 ₁₀ : 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

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments
					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 ² (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-22	Manufacturer for Criteria Pollutants AP-42 for HAPs	Table 3.3-2 for HAPs	None	None	3000 hours annual operation
SN-23	AP-42 GHG MRR Table C-1	AP-42 Tables 3.2-2 and 3.3-3	None	None	500 hours per calendar year

13. 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.

SN	Pollutants	Test Method	Test Interval	Justification
01 and 02	PM	5 and 202	Every year	To demonstrate compliance with PM emission rates.
01 and 02	PM ₁₀	201A and 202	Every year	To demonstrate compliance with PM ₁₀ 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*

* Testing and/or fuel analysis only become applicable when SN-05 is no longer classified as limited-use. Refer to Table 5 and Table 6 of Subpart DDDDD for additional testing and fuel analysis requirements.

14. 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 ₂ CO ₂ NO _x Opacity	CEMS	Continuously	Y

15. 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 ₂ hourly emissions	10,440.0 lb/hr	Continuously	Y
01, 02	SO ₂ Emissions	1.2 lb/MMBtu	Continuously	Y
01, 02	NO _x hourly emissions	6,090.0 lb/hr	Continuously	Y
01, 02	NO _x Emissions	0.7 lb/MMBtu	Continuously	Y
01, 02	Opacity	20%	Continuously	Y

SN	Recorded Item	Permit Limit	Frequency	Report (Y/N)
01, 02	Quarterly Reports	N/A	Quarterly	Y
01, 02	Operating Scenario Log	N/A	As Needed	N
01, 02	SO ₂ annual emissions	91,454.4 tpy	Monthly	Y
01, 02	NO _x 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
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

SN	Recorded Item	Permit Limit	Frequency	Report (Y/N)
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
14	Fuel Throughput	16,000 gallons/yr	Monthly	Y
15	Fuel Throughput	180,000 gallons/yr	Monthly	Y
16	Fuel Throughput	16,000 gallons/yr	Monthly	Y
17, 18	Total dissolved solids	2,800 ppm	Weekly	N
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
23	Hours of operation	500 hours per calendar year	Monthly	N

16. 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
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
23	5%	Department Guidance	Only combusting propane

17. DELETED CONDITIONS:

Former SC	Justification for removal
173	Redundant with SC#174-177.

18. GROUP A INSIGNIFICANT ACTIVITIES:

Source Name	Group A Category	Emissions (tpy)						HAPs	
		PM/PM ₁₀	SO ₂	VOC	CO	NO _x	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			

Source Name	Group A Category	Emissions (tpy)						
		PM/ PM ₁₀	SO ₂	VOC	CO	NO _x	HAPs	
							Single	Total
C8 Headwaters Diesel Heaters (3)	A-1	3.20E-02	6.90E-01	6.94E-03	4.90E-02	1.80E-01		
A-1 Total		6.40E-02	1.10E+00	1.39E-02	9.80E-02	3.60E-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 Hydraulic Oil Reservoir	A-2			6.99E-08				
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	A-2			3.07E-06				

Source Name	Group A Category	Emissions (tpy)						
		PM/ PM ₁₀	SO ₂	VOC	CO	NO _x	HAPs	
							Single	Total
Lube Oil Storage Tank #20 (2)								
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				
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	A-3			1.70E-04				

Source Name	Group A Category	Emissions (tpy)						
		PM/ PM ₁₀	SO ₂	VOC	CO	NO _x	HAPs	
							Single	Total
Seal Tank								
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				
A-3 Total				4.71E-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				

Source Name	Group A Category	Emissions (tpy)						
		PM/ PM ₁₀	SO ₂	VOC	CO	NO _x	HAPs	
							Single	Total
T71 EHC Fluid Storage	A-13			1.22E-11				
X15 Unleaded Gasoline Dispensing Station	A-13			2.43E-01				
X16 Diesel Dispensing Station (2)	A-13			4.87E-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						
A-13 Total		6.77E-01		9.63E-01				

Permit #: 0263-AOP-R11

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19. VOIDED, SUPERSEDED, OR SUBSUMED PERMITS:

List all active permits voided/superseded/subsumed by the issuance of this permit.

Permit #
0263-AOP-R10

APPENDIX A – EMISSION CHANGES AND FEE CALCULATION

Fee Calculation for Major Source

Revised 03-11-16

Facility Name: Entergy Arkansas, Inc. - White Bluff
 Permit Number: 0263-AOP-R11
 AFIN: 35-00110

\$/ton factor	23.93	Annual Chargeable Emissions (tpy)	17414.64
Permit Type	Renewal No Changes	Permit Fee \$	0

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)	1.9
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		6607.1	6607.1	0	0	4000
PM ₁₀		6414.9	6414.9	0		
PM _{2.5}		0	0	0		
SO ₂		91920.8	91877	-43.8	0	4000
VOC		332.7	334.6	1.9	1.9	334.6
CO		28482.7	28536.4	53.7		
NO _x		53520.8	53521.9	1.1	0	4000
Lead	<input type="checkbox"/>	2.1	2.1	0		

