STATEMENT OF BASIS

For the issuance of Draft Air Permit # 1903-AOP-R16 AFIN: 47-00448

1. PERMITTING AUTHORITY:

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

2. APPLICANT:

Associated Electric Cooperative, Inc. - Dell Power Plant
301 East State Highway 18
Dell, Arkansas 72426

3. PERMIT WRITER:

Alexander Sudibjo

4. NAICS DESCRIPTION AND CODE:

NAICS Description: Electric Bulk Power Transmission and Control
NAICS Code: 221121

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
12/15/2025	Modification	N/A

6. REVIEWER'S NOTES:

With this modification, the facility is removing the restriction of using only No. 2 fuel oil (SC#6) for the turbines (SN-01 and SN-02) and removing the PM, PM_{10}, and VOC five year testing requirements for the turbines when running on fuel oil (SC#11 and #13). There are no changes to the facility's operation or permitted annual emission limits.

7. COMPLIANCE STATUS:

As of December 15, 2025, there are no compliance issues with the facility. ECHO (https://echo.epa.gov/detailed-facility-report?fid=110043716565) shows no air violations identified as of May 8, 2025.

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.

9. SOURCE AND POLLUTANT SPECIFIC REGULATORY APPLICABILITY:

Source	Pollutant	Regulation (NSPS, NESHAP or PSD)
03, 32, 33	-	NSPS Dc
01 and 02 including duct burners	SO_2 NO_X	NSPS KKKK
All Sources except SN-35 and SN-36	PM/PM_{10} VOC CO NO_X	PSD
34 and 37	HAPS	NESHAP ZZZZ

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
N/A				

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 8 CAR pt. 40 requirement.)

If yes, are applicable requirements included and specifically identified in the permit? If not, explain why.

For any requested inapplicable regulation in the permit shield, explain the reason why it is not applicable in the table below.

Source	Inapplicable Regulation	Reason
N/A		

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
N/A		

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:

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/m^3), 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?
Acrolein	0.23	0.0253	0.0251	Yes
Ammonia	17.4	1.92	51.5	No
Arsenic	0.01	0.001	0.0466	No
Beryllium	0.00005	5.50E-06	0.0013	No
Cadmium	0.002	0.0002	0.0211	No
Chromium	0.5	0.055	0.0210	Yes
Cobalt	0.02	0.002	0.0001	Yes
Formaldehyde	1.5	0.165	1.2446	No
Manganese	0.2	0.022	3.3372	No
Mercury	0.01	0.001	0.0053	No
Nickel	0.1	0.011	0.0209	No
POM	0.2	0.022	0.1704	No
Selenium	0.2	0.022	0.1056	No
Lead	0.05	0.0055	0.3	No

2nd Tier Screening (PAIL)

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.

No modeling was performed with this permit revision.

Pollutant	PAIL ($\mu g/m^3$) = 1/100 of Threshold Limit Value	Modeled Concentration ($\mu g/m^3$)	Pass?
Ammonia	174	5.72	Yes
Arsenic	0.1	0.00271	Yes
Beryllium	0.005	8.0E-05	Yes
Cadmium	0.02	0.00993	Yes
Formaldehyde	15	0.2276	Yes

Pollutant	PAIL ($\mu g/m^3$) = 1/100 of Threshold Limit Value	Modeled Concentration ($\mu g/m^3$)	Pass?
Manganese	2.0	0.1937	Yes
Mercury	0.1	0.00789	Yes
Nickel	1.0	0.00637	Yes
POM	2.0	0.0103	Yes
Selenium	2.0	0.00613	Yes
Lead	0.5	0.14776	Yes

a) H_2S Modeling:

A.C.A. §8-3-103 requires hydrogen sulfide emissions to meet specific ambient standards. Many sources are exempt from this regulation, refer to the Arkansas Code for details.

Is the facility exempt from the H_2S Standards Y
If exempt, explain: the facility does not have H_2S emissions.

15. CALCULATIONS:

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments
01 and 02	AP-42 and General Electric (GE) Equipment Specs Fuel Analysis	For HAPs: AP-42 Tables 3.1-2a and 3.1-3 SO_2: 20 ppmv for fuel oil	Dry Low NO_x, Water Injection, and Selective Catalytic Reduction	Approx 85%	Controlled emission factors provided for the GE Turbines. Factors assume that SCR is included.
03	AP-42	Table 1.4-1, 1.4-2, 1.4-3, and 1.4-4	Low NO_x Burner	N/A	Uncontrolled emission factors
04-15	AP-42 and AWMA Abstract No. 216, Session No. AM-1b, Orlando, 2001	0.0005% Drift Rate and 8000ppm Total Dissolved Solids	N/A	N/A	Uncontrolled emission factors

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments
16-22 and 24-27	AP-42 and AWMA Abstract No. 216, Session No. AM-1b, Orlando, 2001	0.0005% Drift Rate and 1500ppm Total Dissolved Solids	N/A	N/A	Uncontrolled emission factors
34	AP-42	Table 3.3-1 and 3.3-2	N/A	N/A	Uncontrolled emission factors
32 33	Manufacturer's Specs for CO, NO_X AP-42 all others	1.35 lb NO_X/hr 0.46 lb CO/hr AP-42 1.4	N/A	N/A	Uncontrolled emission factors
35, 36	Tanks	40.9 lb VOC/hr	N/A	N/A	Uncontrolled emission factors
37	AP-42	Table 3.3-1 and 3.3-2	N/A	N/A	Uncontrolled emission factors

16. TESTING REQUIREMENTS:

The permit requires testing of the following sources.

SN	Pollutants	Test Method	Test Interval	Justification
01 and 02	PM	5 and 202	One time for fuel oil combustion only. Completed on 5/16/24 (SN-01) and 3/22/23 (SN-02).	In order to confirm BACT and lb/MMBtu limits
	PM_{10}	201A and 202 or 5 and 202		
	VOC	25A		
03	NO_X	7E	Initial	In order to confirm BACT and lb/MMBtu

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 and 02	Fuel Sulfur Content	ASTM D1072-80, D3031-81, or D3246-81	Daily	If exceeded
	Fuel Nitrogen Content	Fuel Monitoring Protocol for Stationary Gas Turbines subject to 40 CFR 60, Subpart KKKK	Daily	
	Fuel Flow Rate	In-line Fuel Flow Meter (CEM)	Continuous	
	CO	CEM	Continuous	
	NO_X	CEM	Continuous	
	SO_2	CEM	Continuous	
04-15	TDS	Not to exceed 8,000 ppm	Monthly	Y
16-22 and 24-27	TDS	Not to exceed 1,500 ppm	Weekly	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 and 02	Fuel Fired	Natural Gas or fuel oil which contains <= 0.002% by wt. of sulfur	N/A	Y
	Natural Gas Usage	39,500 MMscf per 12 consecutive months	Monthly	Y
	Fuel Nitrogen and Sulfur Contents	N/A	Daily	Y
	Fuel Oil Usage	1,850 hours per 12 consecutive months	Monthly	Y
	Readiness Testing	N/A	As Occurs	Y
	Fuel Oil Sulfur Content	0.002%	Monthly	Y
03	Fuel Fired	Natural Gas	N/A	Y
04-15	Total Dissolved Solids	8,000 ppm	Monthly	Y
16-22 and 24-27	Total Dissolved Solids	1,500 ppm	Weekly	Y
34	Fuel Sulfur Content	0.5%	Monthly	Y

SN	Recorded Item	Permit Limit	Frequency	Report (Y/N)
	Hours per year of operation	100 hours per calendar year	Monthly	Y
32 and 33	Fuel burned	N/A	Monthly	Y
35 and 36	Fuel Oil Throughput	257,380,000 gal per 12 consecutive months	Monthly	Y
37	Hours per year of operation	100 hours per calendar year	Monthly	Y

19. OPACITY:

SN	Opacity	Justification for limit	Compliance Mechanism
01 and 02 (natural gas)	5%	Dept. Limit	Initial reading, then natural gas usage only
01 and 02 (fuel oil)	10%	BACT Limit	Daily Method 9 Observations during fuel oil combustion
03	5%	Dept. Limit	Natural gas usage only
04-15, 16-22 and 24-27	20%	Dept. Limit	Total Dissolved Solids Limit (SC#34 and 35)
32 and 33	5%	Dept. Limit	Natural gas as fuel
34 and 37	20%	Dept. Limit	Daily Method 9 Observations when operating more than 3 consecutive hours

20. DELETED CONDITIONS:

Former SC	Justification for removal
N/A	

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)						
		PM/ PM_{10}	SO_2	VOC	CO	NO_x	HAPs	
							Single	Total
Diesel Tank 500 gal	A-3			0.0001				
Diesel Tank 400 gal	A-3			0.0001				

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 #
1903-AOP-R15

APPENDIX A – EMISSION CHANGES AND FEE CALCULATION

Fee Calculation for Major Source

Revised 03-11-16

Facility Name: Associated Electric Cooperative, Inc. - Dell Power Plant
Permit Number: 1903-AOP-R16
AFIN: 47-00448

$/ton factor	28.14	Annual Chargeable Emissions (tpy)	1027.14
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	☐
If Hold Active Permit, Amt of Last Annual Air Permit Invoice $	0
Total Permit Fee Chargeable Emissions (tpy)	0
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 condensible 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		331.7	331.7	0	0	331.7
PM_{10}		254.5	254.5	0		
$PM_{2.5}$		0	0	0		
SO_2		36.5	36.5	0	0	36.5
VOC		69.7	69.7	0	0	69.7
CO		503.5	503.5	0		
NO_X		326.2	326.2	0	0	326.2
Lead	☐	0.51	0.51	0		

Pollutant (tpy)	Check if Chargeable Emission	Old Permit	New Permit	Change in Emissions	Permit Fee Chargeable Emissions	Annual Chargeable Emissions
Acrolein	☐	0.14	0.14	0		
Arsenic	☐	0.11	0.11	0		
Beryllium	☐	0.07	0.07	0		
Cadmium	☐	0.07	0.07	0		
Chromium	☐	0.11	0.11	0		
Cobalt	☐	0.07	0.07	0		
Formaldehyde	☐	1.74	1.74	0		
Manganese	☐	3.15	3.15	0		
Mercury	☐	0.07	0.07	0		
Nickel	☐	0.07	0.07	0		
POM	☐	0.25	0.25	0		
Selenium	☐	0.15	0.15	0		
Ammonia	☑	263.04	263.04	0	0	263.04