

STATEMENT OF BASIS

For the issuance of Draft Air Permit # 1860-AOP-R7 AFIN: 29-00304

1. PERMITTING AUTHORITY:

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

2. APPLICANT:

Arkansas Electric Cooperative Corporation - Fulton CT1 Generating Station  
100 AECC Road  
Fulton, Arkansas 71838

3. PERMIT WRITER:

John Mazurkiewicz

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
5/12/2020	Renewal	Total HAP limits increased based on revised calculations

6. REVIEWER'S NOTES:

- Process descriptions and regulatory citations have been updated.
- Various formatting changes were made.

7. COMPLIANCE STATUS:

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

The last inspection was conducted on February 26, 2019. No areas of concern were identified. A review of ECHO revealed no CAA violations in the last twelve (12) quarters.

8. PSD/GHG APPLICABILITY:

a) Did the facility undergo PSD review in this permit (i.e., BACT, Modeling, etc.)? No. If yes, were GHG emission increases significant? N/A.

b) Is the facility categorized as a major source for PSD? No.

- *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.

N/A.

9. SOURCE AND POLLUTANT SPECIFIC REGULATORY APPLICABILITY:

Source	Pollutant	Regulation (NSPS, NESHAP or PSD)
01	SO <sub>2</sub> NO <sub>x</sub>	40 C.F.R. § 60 Subpart GG— <i>Standards of Performance for Stationary Gas Turbines</i>
		40 C.F.R. §§ 72, 73, and 75— <i>Acid Rain Program</i>
02	HAPs	40 C.F.R. § 63 Subpart <i>ZZZZ—National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines</i>

10. PERMIT SHIELD – TITLE V PERMITS ONLY:

Did the facility request a permit shield in this application? No.

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

If yes, are applicable requirements included and specifically identified in the permit?

N/A.

11. EMISSION CHANGES AND FEE CALCULATION:

See emission change and fee calculation spreadsheet in Appendix A.

12. 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 ADEQ Air Permit Screening Modeling Instructions.

b) Non-Criteria Pollutants:

The non-criteria pollutants listed below were evaluated. Based on Department procedures for review of non-criteria pollutants, emissions of all other non-criteria pollutants are below thresholds of concern.

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?
Acrolein	0.23	0.0253	0.0111	Yes
POM	0.2	0.022	1.2	No

2<sup>nd</sup> 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.

Pollutant	PAIL (µg/m <sup>3</sup> ) = 1/100 of Threshold Limit Value	Modeled Concentration (µg/m <sup>3</sup> )	Pass?
POM	2	0.0127	Yes

c) H<sub>2</sub>S Modeling: N/A.

13. CALCULATIONS:

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments
01	NOx and CO: Manufacturer Guarantee	172 lb NO <sub>x</sub> /hr 42 lb CO/hr	DLN - Dry Low NOx Burners	N/A	
	Particulates, SO <sub>2</sub> , VOC, and HAPs: AP-42 Section 3.1	6.6E-03 lb PM <sub>10</sub> /MMBtu 6E-04 lb SO <sub>2</sub> /MMBtu 2.1E-03 lb VOC/MMBtu			
02	AP-42 Section 3.3	0.31 lb PM <sub>10</sub> /MMBtu 0.29 lb SO <sub>2</sub> /MMBtu 0.35 lb VOC/MMBtu 0.95 lb CO/MMBtu 4.41 lb NO <sub>x</sub> /MMBtu	Oxidation Catalyst	75% (CO)	2.674 MMBtu/hr  500 hr/yr

14. TESTING REQUIREMENTS:

The permit requires testing of the following sources.

SN	Pollutants	Test Method	Test Interval	Justification
None.				

15. 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	NOx, corrected to 15% O <sub>2</sub>	CEM	Continuous	Y

16. 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)
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SN	Recorded Item	Permit Limit	Frequency	Report (Y/N)
01	Fuel usage	5,832 MMSCF/yr	Monthly	Y
02	Opacity	20%	Annual	N
02	Hours of operation	500 hr/yr	Monthly	Y

17. OPACITY:

SN	Opacity	Justification for limit	Compliance Mechanism
01	5%	Department Standard	pipeline quality natural gas only
02	20%	Department Standard	annual observation

18. DELETED CONDITIONS:

Former SC	Justification for removal
	None.

19. 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 <sub>10</sub>	SO <sub>2</sub>	VOC	CO	NO <sub>x</sub>	HAPs	
							Single	Total
3.75 MMBtu/hr Natural Gas Fired Fuel Heater	A-1	0.2	0.1	0.1	1.5	1.8	0.01	0.01
500 Gallon Diesel Storage Tank	A-3			0.1			0.01	0.01

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20. VOIDED, SUPERSEDED, OR SUBSUMED PERMITS:

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

Permit #
1860-AOP-R6

## APPENDIX A – EMISSION CHANGES AND FEE CALCULATION

## Fee Calculation for Major Source

Revised 03-11-16

Facility Name: Arkansas Electric Cooperative  
 Corporation-Fulton CT1 Generating Station  
 Permit Number: 1860-AOP-R7  
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\$/ton factor	23.93	Annual Chargeable Emissions (tpy)	271.6
Permit Type	Minor Mod	Permit Fee \$	500

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
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		16.3	16.3	0		
PM <sub>10</sub>		16.3	16.3	0	0	16.3
PM <sub>2.5</sub>		0	0	0		
SO <sub>2</sub>		1.8	1.8	0	0	1.8
VOC		5.5	5.5	0	0	5.5
CO		60.1	60.1	0		
NO <sub>x</sub>		248	248	0	0	248



Pollutant (tpy)	Check if Chargeable Emission	Old Permit	New Permit	Change in Emissions	Permit Fee Chargeable Emissions	Annual Chargeable Emissions
Total HAPs	<input type="checkbox"/>	1.78	4.35	2.57		