

STATEMENT OF BASIS

For the issuance of Air Permit # 1433-AOP-R8 AFIN: 02-00065

1. PERMITTING AUTHORITY:

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

2. APPLICANT:

Enable Mississippi River Transmission, LLC (Fountain Hill Compressor Station)
409 Ashley 8 Road
Hamburg, Arkansas 71646

3. PERMIT WRITER:

Joseph Hurt

4. NAICS DESCRIPTION AND CODE:

NAICS Description: Pipeline Transportation of Natural Gas
NAICS Code: 486210

5. 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
6/9/2017	Minor Mod	--

6. REVIEWER'S NOTES:

This application was submitted as a minor modification to:

1. Reconstruct and operate one (1) existing compressor engine (SN-05); and
2. Remove one (1) existing emergency generator (SN-09).

The permitted emission increases include 7.4 tpy of VOC. The permitted emission decreases include 0.1 tpy of PM/PM₁₀, 0.1 tpy of SO₂, 126.6 tpy of CO, 111 tpy of NO_x, and 0.02 tpy of Total HAPs.

7. COMPLIANCE STATUS:

The last inspection was conducted on February 3, 2017. No areas of concerns were noted.

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.

This permit does not include a major modification as defined by 40 CFR §52.21(b)(2).

9. SOURCE AND POLLUTANT SPECIFIC REGULATORY APPLICABILITY:

Source	Pollutant	Regulation (NSPS, NESHAP or PSD)
SN-01 through SN-10	-	NESHAP ZZZZ
SN-05	VOC CO NO _x	NSPS JJJJ

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:

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?
Formaldehyde	0.37	0.041	1.12	N
Methanol	262.1	28.83	0.18	Y
Acetaldehyde	45.1	4.95	0.18	Y
Benzene	1.6	0.18	0.11	Y
Toluene	75.36	8.29	0.11	Y
Acrolein	0.23	0.03	0.18	N

2nd Tier Screening (PAIL)

New modeling for formaldehyde and acrolein were not performed because the proposed lb/hr is not changing. Modeling information is taken from permit #1433-AOP-R6.

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?
Formaldehyde	15	2.35	Y
Acrolein	2.3	0.41	Y

The modeling information presented above is from previous permitting actions. There were no permitted changes in HAP emissions with this permitting action. Therefore, no modeling was required for the issuance of Air Permit 1433-AOP-R8.

12. CALCULATIONS:

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equip.	Control Equipment Efficiency	Comments
01 thru 04 and 07 to 08	NO _x & CO: Stack test data. VOC, PM ₁₀ , SO ₂ (AP-42, 7/00, table 3.2-3)	g/hp-hr NO _x -15.9 CO -18.64 lb/MMBtu PM/PM ₁₀ - 9.5E-3 SO ₂ - 2.96E-2 VOC - 2.96E-2	None	These sources shall be tested for CO & NO _x emissions. Uncontrolled	
05	NSPS JJJ AP-42 Table 3.2-3	g/hp-hr: 1.0 VOC 4.0 CO 3.0 NO _x lb/MMBtu: 0.01941 PM/PM ₁₀ 5.88E-04 SO ₂	NSCR	50% for VOC 90% for CO and NO _x	
06	NO _x & CO: Stack test data. VOC, PM ₁₀ , SO ₂ (AP-42, 7/00, table 3.2-3)	g/hp-hr NO _x -1.795 CO -1.864 lb/MMBtu PM/PM ₁₀ - 9.5E-3 SO ₂ - 2.96E-2 VOC - 2.96E-2	NSCR/ AFRC	95% - NO _x 90% - CO	
01 thru 08	HAPs: GRI-HAPCalc 3.01	g/hp-hr Form. - 6.77E-2 Acet. - 9.2E-3 Acarol. - 8.7E-3 Benzene - 1.01E-2 Methanol - 5.2E-3 Toluene - 1.8E-3	None	Uncontrolled	
10	NO _x , CO, VOC, PM ₁₀ & SO ₂ : (AP-42, 7/00, table 3.2-3)	lb/MMBtu PM/PM ₁₀ - 9.5E-3 NO _x - 2.27 CO - 3.72 SO ₂ - 2.96E-2 VOC - 2.96E-2	None	Test SN-09 one time to determine compliance for CO & NO _x .	

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equip.	Control Equipment Efficiency	Comments
10	HAPs: GRI-HAPCalc 3.01	g/hp-hr Form. – 6.77E-2 Acet. – 9.2E-3 Acarol. - 8.7E-3 Benzene – 1.01E-2 Methanol – 5.2E-3 Toluene – 1.8E-3	None	Uncontrolled	

13. TESTING REQUIREMENTS:

The permit requires testing of the following sources.

SN	Pollutants	Test Method	Test Interval	Justification
01 thru 04 and 06 thru 08	NO _x and CO	7E and 10	Every 60 months	Compressor stations are required to test one half of each type of engine every five years.
05	VOC CO NO _x	25A 10 7E	Initial test and every 8,760 hours or 3 years, whichever comes first	NSPS JJJJ 40 C.F.R. §60.4243(b)(2)(ii)
Plantwide	Total Sulfur (SO ₂)	Sorbent tubes supplied by National Draeger, Incorporated or equivalent, or other test method upon the Department's approval	Every 60 months	Department Guidance

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)
06-07	Catalyst inlet temperature	in-line thermocouple	Continuously	Y
06-07	O ₂ concentration into the catalyst	in-line O ₂ sensor	Continuously	Y
10	Hours of operation	non-resettable hour meter	When in operation	N

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)
06-07	Catalyst inlet temperature	750°F - 1250°F	Continuously	Y
06-07	O ₂ concentration into the catalyst	±200 mv from the operating voltage determined during the baseline test	Continuously	Y
06-07	Pressure Drop across Catalyst	±2 inches of water from the pressure drop measured during the baseline test	Monthly	Y
05	Maintenance conducted	--	As needed	N
10	Hours of operation	500 hours (emergency and non-emergency) per calendar year each. Emergency operation in excess of these hours may be allowable but shall be reported	Monthly	N
01 thru 04, 06, 07, & 08	Records required to maintain remote status	40 CFR §63.6675	Every 12 months	N

SN	Recorded Item	Permit Limit	Frequency	Report (Y/N)
01 thru 04, 06, 07, 08, & 10	Maintenance Conducted	-	See Plantwide Conditions #22 and #23	N

16. OPACITY:

SN	Opacity	Justification for limit	Compliance Mechanism
01 thru 08 & 10	5%	Department Guidance	Natural Gas Fuel Only

17. DELETED CONDITIONS:

Former SC	Justification for removal
9 through 13	These conditions were related to the electric generator engine (SN-09) which has been abandoned in place and is inoperable.

18. GROUP A INSIGNIFICANT ACTIVITIES:

Source Name	Group A Category	Emissions (tpy)						
		PM/PM ₁₀	SO ₂	VOC	CO	NO _x	HAPs	
							Single	Total
Diesel Tank (105 gal)	A-2	-	-	<0.01	-	-	<0.01	<0.01
Kerosene Tank (105 gal)	A-2	-	-	<0.01	-	-	<0.01	<0.01
TOTAL A-2 Activities				<0.02			<0.02	<0.02
Slop Tank (4200 gal)	A-3	-	-	0.18	-	-	<0.01	<0.01
Slop Tank (8820 gal)	A-3	-	-	0.18	-	-	<0.01	<0.01
Used Oil Tank (4200 gal)	A-3	-	-	<0.01	-	-	<0.01	<0.01
Used Oil Tank (1008 gal)	A-3	-	-	<0.01	-	-	<0.01	<0.01
Used Solvent Tank (1008 gal)	A-3	-	-	0.02	-	-	<0.01	<0.01
Glycol Tank (105 gal)	A-3	-	-	<0.01	-	-	<0.01	<0.01
Antifreeze Mix Tank (8820 gal)	A-3	-	-	<0.01	-	-	<0.01	<0.01
Wastewater Tank (8820 gal)	A-3	-	-	0.18	-	-	<0.01	<0.01

Source Name	Group A Category	Emissions (tpy)						
		PM/ PM ₁₀	SO ₂	VOC	CO	NO _x	HAPs	
							Single	Total
Wastewater Tank (8820 gal)	A-3	-	-	0.18	-	-	<0.01	<0.01
TOTAL A-3 Activities				0.77			<0.08	<0.08
Lube Oil Tank (11298 gal)	A-13	-	-	0.01	-	-	<0.01	<0.01
Blowdown Vent	A-13	-	-	1.22	-	-	<0.01	<0.01
Piping Component Fugitive Emissions	A-13	-	-	0.31	-	-	<0.01	<0.01
TOTAL A-13 Activities				1.77			<0.04	<0.04

19. VOIDED, SUPERSEDED, OR SUBSUMED PERMITS:

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

Permit #
1433-AOP-R7

APPENDIX A – EMISSION CHANGES AND FEE CALCULATION

Fee Calculation for Major Source

Revised 03-11-16

Facility Name: Enable Mississippi River Transmission,
 LLC (Fountain Hill Compressor Station)
 Permit Number: 1433-AOP-R8
 AFIN: 02-00065

\$/ton factor	23.93	Annual Chargeable Emissions (tpy)	751.5
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)	-103.8
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		5	4.9	-0.1		
PM ₁₀		5	4.9	-0.1	-0.1	4.9
PM _{2.5}		0	0	0		
SO ₂		1	0.9	-0.1	-0.1	0.9
VOC		8.2	15.6	7.4	7.4	15.6
CO		987.2	860.6	-126.6		
NO _x		841.1	730.1	-111	-111	730.1
Total HAPs	<input type="checkbox"/>	7.08	7.06	-0.02		