STATEMENT OF BASIS

For the issuance of Air Permit # 1433-AOP-R7 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:

Alexander Sudibjo

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
1/15/2014	Renewal	None

6. REVIEWER'S NOTES:

This is the third Title V renewal for the facility. With this renewal, the facility is requesting to reduce the hours of operation for the emergency engines, SN-09 and SN-10, to 500 hours per year and updating emission calculations for all sources. The facility's permitted annual emissions are increasing by 2.4 tpy PM/PM_{10} and 3.34 tpy total HAPs.

7. COMPLIANCE STATUS:

As of January 15, 2014, 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. 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

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/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?
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

Pollutant	TLV (mg/m^3)	PAER (lb/hr) = 0.11 × TLV	Proposed lb/hr	Pass?
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 ($\mu g/m^3$) = 1/100 of Threshold Limit Value	Modeled Concentration ($\mu g/m^3$)	Pass?
Formaldehyde	15	2.35	Y
Acrolein	2.3	0.41	Y

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 05 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	
06	NO_X & CO: Stack test data. VOC, PM_{10}, SO2 (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	None	Uncontrolled	

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equip.	Control Equipment Efficiency	Comments
		Acarol. - 8.7E-3 Benzene – 1.01E-2 Methanol – 5.2E-3 Toluene – 1.8E-3			
09 & 10	NOx, CO, VOC, PM10 & 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.	
09 & 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 08	NOX and CO	7E and 10	Every 60 months	Compressor stations are required to test one half of each type of engine every five years.
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
09-10	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
09-10	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
01-08	Records required to maintain remote status	40 CFR §63.6675	Every 12 months	N
01-10	Maintenance Conducted	-	See Plantwide Conditions #22 and #23	N

16. OPACITY:

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

17. DELETED CONDITIONS:

Former SC	Justification for removal
None	

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
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

Source Name	Group A Category	Emissions (tpy)						
		PM/ PM_{10}	SO_2	VOC	CO	NO_x	HAPs	
							Single	Total
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-R6

APPENDIX A – EMISSION CHANGES AND FEE CALCULATION

Fee Calculation for Major Source

Revised 11-06-13

Facility Name: Enable Mississippi River Transmission, LLC - Fountain Hill Compressor Station
Permit Number: 1433-AOP-R7
AFIN: 02-00065

$/ton factor	23.42	Annual Chargeable Emissions (tpy)	855.3
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)	-2.7
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		2.6	5	2.4		
PM_{10}		2.6	5	2.4	2.4	5
SO_2		1	1	0	0	1
VOC		8.2	8.2	0	0	8.2
CO		995.1	987.2	-7.9		
NO_X		846.2	841.1	-5.1	-5.1	841.1
Formaldehyde	☐	1.18	0	-1.18		

Pollutant (tpy)	Check if Chargeable Emission	Old Permit	New Permit	Change in Emissions	Permit Fee Chargeable Emissions	Annual Chargeable Emissions
Methanol	☐	0.74	0	-0.74		
Acetaldehyde	☐	0.74	0	-0.74		
Benzene	☐	0.34	0	-0.34		
Toluene	☐	0.16	0	-0.16		
Acrolein	☐	0.58	0	-0.58		
Total HAPs	☐	0	7.08	7.08		
	☐	0	0	0		
	☐	0	0	0		
	☐	0	0	0		
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