STATEMENT OF BASIS

For the issuance of Air Permit # 1513-AOP-R6 AFIN: 61-00076

1. PERMITTING AUTHORITY:

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

2. APPLICANT:

Enable Mississippi River Transmission, LLC (Biggers Compressor Station)
278 Gas Plant Road
Biggers, Arkansas 72413

3. PERMIT WRITER:

Kyle Crane

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
1/10/2017	Administrative Amendment	None

6. REVIEWER'S NOTES:

Enable Mississippi River Transmission, LLC (MRT) owns and operates the Biggers Natural Gas Compressor Station which is located in Biggers, Randolph County, Arkansas. The facility has submitted an administrative amendment to the facility's Title V permit. This amendment revises the Solar Taurus turbine drive centrifugal compressor (SN-11) horsepower value from 5,850 Hp to the manufacturer's rating of 6,937 Hp. The total permitted emission rates are not changed in this revision because SN-11's permitted emissions were based on manufacturer's factors that included 6,937 Hp.

7. COMPLIANCE STATUS:

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

The facility was last inspected in May, 2016. No areas of concern were identified.

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? N

- *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.

9. SOURCE AND POLLUTANT SPECIFIC REGULATORY APPLICABILITY:

Source	Pollutant	Regulation (NSPS, NESHAP or PSD)
SN-11	SO_2 and NOx	40 CFR Part 60, Subpart GG
SN-01, SN-02, SN-04 through SN-07, SN-09, and SN-12	Formaldehyde	40 CFR Part 63, Subpart ZZZZ
SN-13	There are no specific emission limits or pollutants identified, but the rules generally regulate HAPs	40 CFR Part 63, Subpart CCCCCC
SN-01, SN-02, and SN-04 through SN-07	NO_x	40 CFR Part 64 (CAM)

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:

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.

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?
Acetaldehyde	45	4.95	0.36	Yes
Acrolein	0.229	0.025	0.15	NO
Benzene	1.59	0.175	0.09	Yes
Formaldehyde	1.5[a.]	0.165	0.51	NO
Methanol	262	28.8	0.14	Yes
Toluene	75	8.28	0.09	Yes

a. Based on the ADEQ approved alternate PAIL.

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.

Pollutant	PAIL ($\mu g/m^3$) = 1/100 of Threshold Limit Value	Modeled Concentration ($\mu g/m^3$)	Pass?
Acrolein	2.29	0.59293	YES
Formaldehyde	15.0[a.]	1.32348	YES

a. ADEQ approved alternate PAIL.

12. CALCULATIONS:

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments
01, 02, 04, 05, 06, & 07	NO_x & CO per testing. VOC, PM10 & SO2 per AP-42 (7/00, 3.2-3) HAPs	Uncontrolled lb/hr: 44.90 CO 42.20 NO_x lb/MMBtu: 2.96E-02 VOC 1.94E-02 PM_{10} 5.88E-04 SO_2 GRI-HAPCalc (V3.01)	NSCR	76% for Formaldehyde	Controlled lb/hr: 8.98 CO 8.44 NO_x Based on 4000 hours of operation annually for each compressor engine
09	NO_x, CO, VOC, PM10 & SO2 per AP-42 (7/00, 3.2-3) HAPs	lb/MMBtu: 2.27 NO_x 3.72 CO 2.96E-02 VOC 1.94E-02 PM_{10} 5.88E-04 SO_2 GRI-HAPCalc (V3.01)	N/A	N/A	Tpy emissions are calculated based on 500 hours of operation annually.
11	NO_x & CO per Manufacturer's data. VOC, PM10 & SO2 per AP-42 (7/00, 3.1-2a) HAPs	lb/hr: 32.50 NO_x 7.00 CO lb/MMBtu: 2.10E-03 VOC 6.60E-03 PM_{10} 3.40E-03 SO_2 GRI-HAPCalc (V3.01)	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
12	NO_x, CO, VOC, PM10 & SO2 per AP-42 (7/00, 3.2-3) HAPs	lb/MMBtu: 2.27 NO_x 3.72 CO 2.96E-02 VOC 1.94E-03 PM_{10} 5.88E-04 SO_2 GRI-HAPCalc (V3.01)	N/A	N/A	Tpy emissions are calculated based on 500 hours of operation annually.
13	EPA Tanks software	Varies	N/A	N/A	548 gallon capacity

13. TESTING REQUIREMENTS:

The permit requires testing of the following sources.

SN	Pollutants	Test Method	Test Interval	Justification
Plantwide	Total Sulfur (SO_2)	Methods outlined in section 2.3.5 or 2.3.3.1.2 of 40 CFR Part 75, Appendix D	Every five years	Department Guidance
01, 02, & 04	NO_x & CO	7E & 10	One half of every engine every five years	Department Guidance
05, 06, & 07	NO_x & CO	7E & 10	One half of every engine every five years	Department Guidance
11	NO_x & CO	7E/20 & 10	Every five years	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)
11	Fuel sulfur content	As specified in NSPS Subpart GG	Continuously	N
	Fuel nitrogen content	As specified in NSPS Subpart GG	Continuously	N
01, 02, and 04 through 07	Catalyst inlet temperature	In-line thermocouple	Continuously	Y
	O_2 concentration into the catalyst	In-line O_2 sensor	Continuously	Y
	Pressure drop	Pressure gauge	Monthly	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, and 04 through 07	Hours of operation	4,000 hours per rolling 12-month period (each)	Monthly	Y
	Catalyst Inlet Temperature	750°F - 1250°F	Continuously	Y
	O_2 concentration into the catalyst	±200 mv from the operating voltage determined during the baseline test	Continuously	Y
	Pressure Drop across Catalyst	±2 inches of water from the pressure drop measured during the baseline test	Monthly	Y
	Records required by 63.6655	N/A	N/A	Y
	Maintenance Conducted	N/A	N/A	Y

SN	Recorded Item	Permit Limit	Frequency	Report (Y/N)
09	Hours of Operation	500 hours per calendar year	Monthly	Y
11	NO_x emissions	230 ppm	Continuously	N
	Fuel sulfur content	0.8% by wt.	Continuously	N
12	Hours of operation	500 hour per rolling 12-month period	Monthly	Y
13	Gasoline throughput	6,576 gallons per rolling 12-month total	Monthly	Y

16. OPACITY:

SN	Opacity	Justification for limit	Compliance Mechanism
Plantwide except SN-13	5 %	Department Guidance	Combustion of natural gas only

17. DELETED CONDITIONS:

Former SC	Justification for removal

18. GROUP A INSIGNIFICANT ACTIVITIES:

Source Name	Group A Category	Emissions (tpy)						
		PM/PM_{10}	SO_2	VOC	CO	NO_x	HAPs	
							Single	Total
0.1 MMBtu/hr Boiler	A-1	0.003	0.001	0.002	0.004	0.04		
Total	A-1	0.003	0.001	0.002	0.004	0.04		
Methanol Tank (168 gal)	A-2			0.01			0.01	0.01
Kerosene Tank (168 gal)	A-2			0.001				
Total	A-2			0.011			0.01	0.01
Used Oil Tank (1,176 gal)	A-3			0.001				

Source Name	Group A Category	Emissions (tpy)						
		PM/PM_{10}	SO_2	VOC	CO	NO_x	HAPs	
							Single	Total
Entrained Liquids Tank (7,518 gal)	A-3			0.04				
Antifreeze Tank (4,200 gal)	A-3			0.001				
Antifreeze Mix Tank (7,000 gal)	A-3			0.001				
Diesel Tank (1,134 gal)	A-3			0.001				
Waste Water Tank (4,700)	A-3			0.07				
Total	A-3			0.114				
Piping Component Fugitives	A-13			0.19				
Engine blowdowns	A-13			0.10				
Oil Storage Tank (11,298 gal)	A-13			0.01				
Smart Ash Incinerator	A-13	0.27		0.008	0.36			
Total	A-13	0.27		0.308	0.36			

19. VOIDED, SUPERSEDED, OR SUBSUMED PERMITS:

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

Permit #
1513-AOP-R5

APPENDIX A – EMISSION CHANGES AND FEE CALCULATION

Fee Calculation for Major Source

Revised 03-11-16

Facility Name: Enable Mississippi River Transmission, LLC (Biggers Compressor Station)
Permit Number: 1513-AOP-R6
AFIN: 61-00076

$/ton factor	23.93	Annual Chargeable Emissions (tpy)	260.6
Permit Type	AA	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	☐
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		5.9	5.9	0		
PM_{10}		5.9	5.9	0	0	5.9
$PM_{2.5}$		0	0	0		
SO_2		1.9	1.9	0	0	1.9
VOC		5.9	5.9	0	0	5.9
CO		143.6	143.6	0		
NO_X		246.9	246.9	0	0	246.9
Total HAPs	☐	3.54	3.54	0		