

STATEMENT OF BASIS

For the issuance of Draft Air Permit # 1419-AOP-R4 AFIN: 34-00111

1. PERMITTING AUTHORITY:

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

2. APPLICANT:

CenterPoint Energy - Mississippi River Transmission Corp. - Tuckerman Compressor Station
3.5 miles southwest of Tuckerman on Gracelawn Street
Tuckerman, Arkansas 72473

3. PERMIT WRITER:

Andrea Sandage

4. PROCESS DESCRIPTION AND NAICS CODE:

NAICS Description: Pipeline Transportation of Natural Gas
NAICS Code: 48621

5. SUBMITTALS:

11/16/2009, 10/19/2009

6. REVIEWER'S NOTES:

CenterPoint Energy - Mississippi River Transmission Corporation (MRT) owns and operates a compressor station near Tuckerman, Arkansas. This permitting action is necessary to renew the Title 5 permit which is set to expire on July 19, 2010. Included in this renewal is the request submitted October 19, 2009 to update the insignificant activities by removing two 150-gallon diesel storage tanks and adding one 500-gallon diesel storage tank to group A-3. This request was accepted as an Administrative Amendment and will be incorporated in this permit.

Any changes in source emissions are a result of new factors or clerical/rounding errors and do not represent a change in the operating scenario. The total decrease in emissions include: 7.8 tpy NO_x, 0.60 tpy Acetaldehyde, 0.60 tpy Acrolein, 4.40 tpy formaldehyde, and 0.20 tpy Methanol. The total increase in emissions include: 7.9 tpy CO, and 0.10 tpy Toluene.

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 has no outstanding/pending enforcement action.

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 not PSD? Title 5 Renewal only – no construction, reconstruction, or modification of equipment.

9. SOURCE AND POLLUTANT SPECIFIC REGULATORY APPLICABILITY:

Source	Pollutant	Regulation (NSPS, NESHAP or PSD)
SN-11	NO _x and SO ₂	NSPS Subpart GG

10. EMISSION CHANGES AND FEE CALCULATION:

See emission change and fee calculation spreadsheet in Appendix A.

11. MODELING: 2008 MET data – modeled 1 year, First High

Criteria Pollutants - 2008 NLR background added to modeled concentration.

Pollutant	Emission Rate (lb/hr)	NAAQS Standard (µg/m ³)	Averaging Time	Highest Modeled Concentration (µg/m ³)	Highest Concentration with Background (µg/m ³)	% of NAAQS
PM ₁₀	1.8	50	Annual	0.5	20.5	41.0%
		150	24-Hour	4.7	41.7	27.8%
CO	48.2	10,000	8-Hour	232.5	1950.3	19.5%
		40,000	1-Hour	318.5	3181.5	8.0%
NO _x	281.0	100	Annual	60.1	76.3	76.3%

* Background – PM₁₀: Annual - 20µg/m³, 24-hr - 37µg/m³; CO: 8 hr – 1717.8 µg/m³, 1 hr 2863.0 µg/m³; NO_x: Annual – 16.196 µg/m³

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?
Acetaldehyde	45.04	4.95	0.55	Yes
Acrolein	0.23	0.0253	0.33	No
Benzene	1.59	0.17	0.14	Yes
Formaldehyde	1.5	0.165	2.36	No
Methanol	262.09	28.82	0.13	Yes
Toluene	75.36	8.29	0.09	Yes

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 (µg/m ³) = 1/100 of Threshold Limit Value	Modeled Concentration (µg/m ³)	Pass?
Acrolein	2.3	0.86	Yes
Formaldehyde	15	5.67	Yes

12. CALCULATIONS:

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Comments
01 thru 04 (880 HP)	Stack Testing	NO _x - 45.31 lb/hr	none	120% Load/safety factor included
	AGA Data	CO - 2.13 gm/hp-hr		Same as previous permit
	AP-42 Table 3.2-1	VOC - 1.20E-01 lb/MMBtu PM ₁₀ - 9.91E-03 lb/MMBtu SO ₂ - 5.88E-04 lb/MMBtu		8760 operating hours 12.842 MMBtu/hr
	GRI-HAPCalc 3.01	Acetaldehyde - 0.0256 gm/hp-hr Acrolein - 0.0257 gm/hp-hr Benzene - 0.0064 gm/hp-hr Formaldehyde - 0.1822 gm/hp-hr Methanol - 0.0082 gm/hp-hr Toluene - 0.0032 gm/hp-hr		Emissions do not include a 70% safety factor that was represented in the previous permit
06 (625 HP)	AGA Data	NO _x - 20.64 gm/hp-hr CO - 1.96 gm/hp-hr	none	EF same as previous permit
	AP-42 Table 3.2-1	VOC - 1.20E-01 lb/MMBtu PM ₁₀ - 9.91E-03 lb/MMBtu SO ₂ - 5.88E-04 lb/MMBtu		No spec sheet for LTC-5 used LTC-8.
	GRI-HAPCalc 3.01	Acetaldehyde - 0.0256 gm/hp-hr Acrolein - 0.0257 gm/hp-hr Benzene - 0.0064 gm/hp-hr Formaldehyde - 0.1822 gm/hp-hr Methanol - 0.0082 gm/hp-hr Toluene - 0.0032 gm/hp-hr		8760 operating hours 7.348 MMBtu/hr
08 (1100 HP)	AGA Data	NO _x - 12.58 gm/hp-hr CO - 3.71 gm/hp-hr	none	EF same as previous permit
	AP-42 Table 3.2-1	VOC - 1.20E-01 lb/MMBtu PM ₁₀ - 9.91E-03 lb/MMBtu SO ₂ - 5.88E-04 lb/MMBtu		No spec sheet for TRA-6 used TRA-8.
	GRI-HAPCalc 3.01	Acetaldehyde - 0.0256 gm/hp-hr Acrolein - 0.0257 gm/hp-hr Benzene - 0.0064 gm/hp-hr Formaldehyde - 0.1822 gm/hp-hr Methanol - 0.0082 gm/hp-hr Toluene - 0.0032 gm/hp-hr		8760 operating hours 10.861 MMBtu/hr
10 (300 HP)	AP-42 Table 3.2-3	NO _x - 2.27 lb/MMBtu CO - 3.72 lb/MMBtu VOC - 2.96E-02 lb/MMBtu PM ₁₀ - 9.50E-03 lb/MMBtu SO ₂ - 5.88E-04 lb/MMBtu	none	4086 operating hours 2.653 MMBtu/hr
	GRI-HAPCalc 3.01	Acetaldehyde - 0.0092 gm/hp-hr Acrolein - 0.0087 gm/hp-hr Benzene - 0.0052 gm/hp-hr Formaldehyde - 0.0677 gm/hp-hr		

SN	Emission Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Comments
		Methanol – 0.0101 gm/hp-hr Toluene – 0.0018 gm/hp-hr		
11 (5850 HP)	Manufacturer's Data	NO _x – 32.5 lbs/hr CO – 7.0 lbs/hr	none	EF same as previous permit NO _x - Based on 142.2 tpy @ 8760 hrs/yr CO - Based on 30.27 tpy @ 8760 hrs/yr 4200 operating hours 70.86 MMBtu/hr
	AP-42 Table 3.2-2a	VOC – 2.10E-03 lb/MMBtu PM ₁₀ – 6.60E-03 lb/MMBtu SO ₂ – 3.40E-03 lb/MMBtu		
	GRI-HAPCalc 3.01	Acetaldehyde – 0.0173 gm/hp-hr Acrolein – 0.0003 gm/hp-hr Benzene – 0.0005 gm/hp-hr Formaldehyde – 0.0169 gm/hp-hr Toluene – 0.0004 gm/hp-hr		
12 (64 HP)	AP-42 Table 3.2-3	NO _x – 2.27 lb/MMBtu CO – 3.72 lb/MMBtu VOC – 2.96E-02 lb/MMBtu PM ₁₀ – 9.50E-03 lb/MMBtu SO ₂ – 5.88E-04 lb/MMBtu	none	500 operating hours 0.732 MMBtu/hr
	GRI-HAPCalc 3.01	Acetaldehyde – 0.0092 gm/hp-hr Acrolein – 0.0087 gm/hp-hr Benzene – 0.0052 gm/hp-hr Formaldehyde – 0.0677 gm/hp-hr Methanol – 0.0101 gm/hp-hr Toluene – 0.0018 gm/hp-hr		

13. TESTING REQUIREMENTS: No change from pervious permit (R3)

The permit requires testing of the following sources.

SN	Pollutants	Test Method	Test Interval	Justification
01, 02, 03, and 04	CO NO _x	10 7E	One-half of each type of compressor engines every five years	See Plantwide Condition # 9 in permit.
06	CO NO _x	10 7E	Every five years	See Plantwide Condition # 9 in permit.
08	CO NO _x	10 7E	Every five years	See Plantwide Condition # 9 in permit.
11	CO NO _x	10 20	Every five years	See Plantwide Condition # 9 in permit.

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)
None				

15. RECORDKEEPING REQUIREMENTS: No change from pervious permit (R3)

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)
10	Operation time	4,086 hours per year	Monthly	N
11	Operation time	4,200 hours per year	Monthly	N
11	Valid purchase contract, tariff sheet or transportation contract	Meets definition of natural gas	Yearly	N
12	Operation time	500 hours per year	Monthly	N

16. OPACITY: No change from pervious permit (R3)

SN	Opacity	Justification for limit	Compliance Mechanism
01 thru 04, 06, 08, 10, 11, and 12	5	natural gas fired	use of natural gas

17. DELETED CONDITIONS: No change from pervious permit (R3)

Former SC	Justification for removal
N/A	

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	Group A 1	0.003	0.001	0.002	0.04	0.04		
Smart Ash Incinerator	Group A 13	0.07		0.002	0.10			
Produced Water Tank (8,700 gal)	Group A 3			0.05				
Lube Oil Tank (11,300 gal)	Group A 13			0.01				
Lube Oil Tank (1,120 gal)	Group A 3			0.001				
Diesel Tank (500 gal)	Group A 3			0.001				
Antifreeze Mix Tank (7,954 gal)	Group A 3			0.001				
Antifreeze Tank (5,500 gal)	Group A 3			0.001				
Truck Loading	Group A 13			0.02				
Station Blowdowns	Group A 13			2.76				
Fugitive Emissions	Group A 13			1.01				

19. VOIDED, SUPERSEDED, OR SUBSUMED PERMITS:

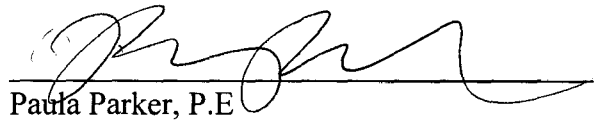
List all active permits voided/superseded/subsumed by the issuance of this permit.

Permit #
1419-AOP-R3

Permit #: 1419-AOP-R4
AFIN: 34-00111
Page 8 of 8

20. CONCURRENCE BY:

The following supervisor concurs with the permitting decision.



Paula Parker, P.E

APPENDIX A – EMISSION CHANGES AND FEE CALCULATION

Fee Calculation for Major Source

Revised 03-01-10

Facility Name: CenterPoint Energy - Mississippi River
 Transmission Corporation Tuckerman Compressor Station
 Permit Number: 1419-AOP-R4
 AFIN: 34-00111

\$/ton factor	22.07	Annual Chargeable Emissions (tpy)	1176.9
Permit Type	Renewal No Changes	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	<input type="checkbox"/>
If Hold Active Permit, Amt of Last Annual Air Permit Invoice \$	0
Total Permit Fee Chargeable Emissions (tpy)	-7.8
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 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	<input checked="" type="checkbox"/>	4.5	4.5	0	0	4.5
PM ₁₀	<input type="checkbox"/>	4.5	4.5	0		
SO ₂	<input checked="" type="checkbox"/>	1.4	1.4	0	0	1.4
VOC	<input checked="" type="checkbox"/>	37.6	37.6	0	0	37.6
CO	<input type="checkbox"/>	151.4	159.3	7.9		
NO _x	<input checked="" type="checkbox"/>	1141.2	1133.4	-7.8	-7.8	1133.4
Acetaldehyde	<input type="checkbox"/>	2.38	1.8	-0.58		
Acrolein	<input type="checkbox"/>	1.92	1.34	-0.58		
Benzene	<input type="checkbox"/>	0.43	0.39	-0.04		
Formaldehyde	<input type="checkbox"/>	14.15	9.8	-4.35		
Methanol	<input type="checkbox"/>	0.63	0.45	-0.18		
Toluene	<input type="checkbox"/>	0.11	0.21	0.1		