

STATEMENT OF BASIS

for the issuance of Draft Air Permit# 1433-AOP-R2

1. PERMITTING AUTHORITY:

Arkansas Department of Environmental Quality
8001 National Drive
Post Office Box 8913
Little Rock, Arkansas 72219-8913

2. APPLICANT:

CenterPoint Energy- Mississippi River Transmission Corp.
Fountain Hill Compressor Station
409 Ashley 8 Road
Hamburg, AR 71646-8859

3. PERMIT WRITER: James G. Siganos, P.E.

4. PROCESS DESCRIPTION AND NAICS CODE:

NAICS Description: Pipeline Transportation of Natural Gas - Compressor Station
NAICS Code: 486210

5. SUBMITTALS: March, 2004

6. REVIEWER'S NOTES:

CenterPoint Energy - Mississippi River Transmission Corporation owns and operates the Fountain Hill Natural Gas Compressor Station which is located in Hamburg, Ashley County, Arkansas.

This permit is being issued as a renewal for the Title V Operating Permit 1433-AOP-R1, which has an expiration date of September 12, 2004. This is an existing operation; no new construction or major modification is being proposed. The facility is a major source of criteria pollutants and is therefore subject to Title V requirements. Significant emissions of nitrogen oxides, carbon monoxide and volatile organic compounds are a result of the combustion of natural gas in the compressor engines. Routine blowdowns and piping components are a source of fugitive emissions. Small amounts (less than 3.0 tpy) of particulate matter and sulfur dioxide may be emitted from this facility.

Updated emission factors for the compressor engines were sourced from AP-42, Section 3.2, table 3.2.3, Natural Gas-fired Reciprocating Engines, July 2000 edition. The use of this updated uncontrolled engine emission data resulted in small plantwide emission changes.

Based upon information submitted by the permittee, the facility is not a major source of HAPs, subject to 40 CFR Part 63, Subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE).

The Title V renewal application requested a 20% increase in the permit limits for CO and NOx. The stack testing performed in January 2004 shows the permit limit (R1) to be 26% above the highest test result for NOx, and 32% above the highest test result for CO. The increase was not allowed and the permittee agreed to the following as stated by e-mail: CenterPoint Energy - Mississippi River Transmission agrees that the existing emission rates found in the current permit can be included in the renewal permit for the Fountain Hill Compressor Station.

7. COMPLIANCE STATUS:

There are no known active/pending enforcement activities regarding this facility. The Fountain Hill Compressor Station plans to comply with all future regulatory requirements.

8. APPLICABLE REGULATIONS:

PSD Applicability N/A

9. EMISSION CHANGES:

The following table summarizes plant wide emission changes associated with this permitting action:

Plant Wide Permitted Emissions (ton/yr)			
Pollutant	Air Permit 1433-AOP-R1	Air Permit 1433-AOP-R2	Change
PM/PM ₁₀	---	3.0	+3.0
SO ₂	---	<1.0	+<1.0
VOC	33.4	9.0	-23.4
CO	1271.4	1307.1	35.7
NO _x	1167.4	1105.9	-61.5
*Formaldehyde	7.34	4.76	-2.58
*Methanol	1.54	0.79	-0.75
*Acetaldehyde	---	0.79	0.79
*Benzene	---	0.40	0.40
Toluene	---	0.40	0.40
*Acrolein	---	0.79	0.79

10. MODELING:

Criteria Pollutants

Examination of the source type, location, plot plan, land use, emission parameters, and other available information indicate that modeling is not warranted at this time. *(If criteria pollutant modeling is performed, please remove this paragraph.)*

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 deemed 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? (Y/N)
Formaldehyde	1.5	0.170	1.87	N
Methanol	262	28.82	0.03	Y
Acetaldehyde	45	4.95	0.32	Y
Benzene	1.6	0.18	<0.3	Y
Toluene	188.4	20.72	0.08	Y
Acrolein	2.3	0.26	0.06	Y

2nd Tier Screening (PAIL)

ISCST3 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 was 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	0.4	Y

11. CALCULATIONS:

SN	Emission Factor Source (AP-42, Testing, etc)	Control Equipment Type (if any)	Control Equipment Efficiency	Comments (Emission factor controlled/uncontrolled, etc)
01 to 08	NOx & CO: Stack test data. VOC, PM10, SO2 (AP-42, 7/00, table 3.2-3)	None	None	These sources shall be tested for CO & NOx emissions. Uncontrolled
01 to 08	HAPs: GRI-HAPCalc 3.01	None	None	Uncontrolled
09 & 10	NOx, CO, VOC, PM10 & SO2: (AP-42, 7/00, table 3.2-3)	None	None	Test SN-09 one time to determine compliance for CO & NOx.
09 & 10	HAPs: GRI-HAPCalc 3.01	None	None	Uncontrolled

12. TESTING REQUIREMENTS:

This permit requires stack testing of the following sources.

SN(s)	Pollutant	Test Method	Test Interval	Justification For Test Requirement
01 to 08	NOX and CO	7E and 10	Upon permit issuance and Title V renewal	Compressor stations are required to test one half of each type of engine every five years.
*09	NOX and CO	7E and 10	Upon permit issuance and Title V renewal	Test one time to determine compliance. Compared to the previous permit (R1), the total NOx emission rate limit for this permit renewal (R2) shows a decrease of 61.5 tpy. Also shown is an increase in the CO emission rate limit of 35.7 tpy.

* Refer to PW #8. In order to determine compliance, the permittee shall conduct tests for NOx and CO on the Electric Generator Engine (SN-09) in accordance with Plantwide Condition 3, only if the operating time exceeds 2160 hours in any consecutive twelve month period, during a five year permit term.

13. MONITORING OR CEMS

There are no parameters that must be monitored with CEMs or other monitoring equipment (temperature, pressure differential, etc) for the current permitting action.

14. RECORD KEEPING REQUIREMENTS

The following are items (such as throughput, fuel usage, VOC content of coating, etc) that must be tracked and recorded, frequency of recording and whether records are needed to be included in any annual, semiannual or other reports.

SN	Recorded Item	Limit (as established in permit)	Frequency	Report (Y/N)
09	Operating Hours	2160 hours (PW condition 8)	Consecutive 12 month	N
10	Operating Hours	876 hours	Consecutive 12 months	N

15. OPACITY

SN	Opacity %	Justification (NSPS limit, Dept. Guidance, etc)	Compliance Mechanism (daily observation, weekly, control equipment operation, etc)
01 to 10	5%	Department Guidance	Natural Gas Fuel Only

16. DELETED CONDITIONS:

Specific conditions have not been deleted for this permitting action.

17. VOIDED, SUPERSEDED OR SUBSUMED PERMITS

1433-AOP-R1

18. CONCURRENCE BY:

The following supervisor concurs with the permitting decision:

 Thomas Rheaume, P.E.