

Permit #:1433-AOP-R3  
AFIN: 02-00065  
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## STATEMENT OF BASIS

for the issuance of Draft Air Permit# 1433-AOP-R3-AA

**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:** May, 2005

**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 modification based upon Permit Appeal Resolution.

The only items/sections that have been changed are: 9, 12, 14 & 17.

Based upon information previously 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).

**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-R2 | Air Permit 1433-AOP-R3 | Change |
| PM/PM <sub>10</sub>                     | 3.0                    | 3.0                    | 0      |
| SO <sub>2</sub>                         | <1.0                   | <1.0                   | 0      |
| VOC                                     | 9.0                    | 9.0                    | 0      |
| CO                                      | 1307.1                 | 1307.1                 | 0      |
| NO <sub>x</sub>                         | 1105.9                 | 1105.9                 | 0      |
| *Formaldehyde                           | 4.76                   | 4.76                   | 0      |
| *Methanol                               | 0.79                   | 0.79                   | 0      |
| *Acetaldehyde                           | 0.79                   | 0.79                   | 0      |
| *Benzene                                | 0.40                   | 0.40                   | 0      |
| Toluene                                 | 0.40                   | 0.40                   | 0      |
| *Acrolein                               | 0.79                   | 0.79                   | 0      |

**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/m<sup>3</sup>), as listed by the American Conference of Governmental Industrial Hygienists (ACGIH).

| Pollutant    | TLV (mg/m <sup>3</sup> ) | 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 <sup>3</sup> ) = 1/100 of Threshold Limit Value | Modeled Concentration (µg/m <sup>3</sup> ) | 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.<br><br>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. |

**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<br>(SC #7)            | Consecutive<br>12 month  | N            |
| 10 | Operating Hours | 876 hours                        | Consecutive<br>12 months | N            |

**15. OPACITY**

| SN       | Opacity % | Justification<br>(NSPS limit, Dept. Guidance, etc) | Compliance Mechanism<br>(daily observation, weekly,<br>control equipment operation,<br>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-R2

**18. CONCURRENCE BY:**

The following supervisor concurs with the permitting decision:

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Thomas Rheume, P.E.