

STATEMENT OF BASIS

For the issuance of Draft Air Permit # 1102-AOP-R2 AFIN: 30-000081

1. PERMITTING AUTHORITY:

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

2. APPLICANT:

Centerpoint Energy - Malvern Compressor
Ridge Road, 6 miles south of Malvern
Malvern, Arkansas 72104

3. PERMIT WRITER:

Thomas Rheume, PE

4. PROCESS DESCRIPTION AND NAICS CODE:

NAICS Description: Pipeline Transportation of Natural Gas
NAICS Code: 486210

5. SUBMITTALS:

December 20, 2004

6. REVIEWER'S NOTES:

This permit is a renewal of the facility's operating permit. HAP emission rates are decreasing based on the latest emission factors available. Sources SN-01 through 04 are renumbered based on the facility set up, but both the new and old designations are included in the permit for reference. No other changes are occurring in this permit.

7. COMPLIANCE STATUS:

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

At the time of the last inspection, the facility was not properly maintaining records of hours of operation.

8. APPLICABLE REGULATIONS:

PSD Applicability

Did the facility undergo PSD review in this permit (i.e., BACT, Modeling, etc.)? N
 Has the facility undergone PSD review in the past? N
 Is the facility categorized as a major source for PSD? Y
 ≥ 100 tpy and on the list of 28? N
 ≥ 250 tpy all other? Y

PSD Netting

Was netting performed to avoid PSD review in this permit? N

Source and Pollutant Specific Regulatory Applicability

Source	Pollutant	Regulation (NSPS, NESHAP or PSD)
None		

9. EMISSION CHANGES:

The following table summarizes plantwide emission changes associated with this permitting action.

Plantwide Permitted Emissions (tpy)			
Pollutant	Permit # 1102-AOP-R1	Permit #1102-AOP-R2	Change
VOC	32.4	32.4	0.0
CO	213.4	214.0	0.6
NO _x	245.8	246.0	0.2
Acetaldehyde	1.16	1.04	-0.12
Acrolein	3.42	2.93	-0.49
Formaldehyde	27.35	12.94	-14.41
Benzene	0.21	0.14	-0.07
Methanol	1.22	1.04	-0.18

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. Model

run with 2001 met data and source 1-4 only. Results are without background values added.

Pollutant	Emission Rate (lb/hr)	NAAQS Standard ($\mu\text{g}/\text{m}^3$)	Averaging Time	Highest Concentration ($\mu\text{g}/\text{m}^3$)	% of NAAQS
PM10	-	50	Annual	-	-
		150	24-Hour	-	-
SO ₂	-	80	Annual	-	-
		1300	3-Hour	-	-
		365	24-Hour	-	-
VOC	8.52	0.12	1-Hour (ppm)	-	-
CO	50.3	10,000	8-Hour	66.42	0.66%
		40,000	1-Hour	35.00	0.088%
NO _x	75.7	100	Annual	1.21	1.21%

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) = $0.11 \times \text{TLV}$	Proposed lb/hr	Pass?
Acetaldehyde	45	4.95	0.25	Y
Acrolein	0.23	0.0253	0.66	N
Formaldehyde	1.5	0.165	3.03	N
Benzene	1.6	0.176	0.05	Y
Methanol	262	28.82	0.25	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 has been deemed by the Department to be one one-hundredth of the Threshold Limit Value as listed by the ACGIH.

Pollutant	PAIL ($\mu\text{g}/\text{m}^3$) = 1/100 of Threshold Limit Value	Modeled Concentration ($\mu\text{g}/\text{m}^3$)	Pass?
Acrolein	2.3	0.249	Y
Formaldehyde	15	1.13	Y

Other Modeling:

Odor:

Odor modeling for sources emitting styrene.

Not Applicable

H₂S Modeling

Not Applicable

11. CALCULATIONS:

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments
Engines	Manufacturer Data for Criteria Pollutants AP42/GRI factors for HAPS		None	None	

12. TESTING REQUIREMENTS:

The permit requires testing of the following sources.

SN	Pollutants	Test Method	Test Interval	Justification
01-04	CO, NO _x	7E,10	½ of each type of engine every 5 years	Standard practice for compressor stations

13. 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				

14. RECORD KEEPING 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)
05	Hours of Operation	500	Monthly	Y
12	Hours of Operation	168	Monthly	Y

15. OPACITY:

SN	Opacity	Justification for limit	Compliance Mechanism
01- 04, 05 and 12	5%	Equipment ability	Fuel use/by inspection

16. DELETED CONDITIONS:

Former SC	Justification for removal
None	

17. VOIDED, SUPERCEDED, OR SUBSUMED PERMITS:

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

Permit #
1102-AOP-R1

Permit #: 1102-AOP-R2

AFIN: 30-000081

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18. CONCURRENCE BY:

The following supervisor concurs with the permitting decision.

Thomas Rheaume, PE