

## STATEMENT OF BASIS

*for the issuance of Draft Air Permit # 1102-AOP-R1*

**1. PERMITTING AUTHORITY:**

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

**2. APPLICANT:**

Reliant Energy Gas Transmission Company - Malvern Compressor Station  
Ridge Road, 6 miles South of Malvern  
Malvern, Arkansas 72104

**3. PERMIT WRITER:**

John Bailey

**4. PROCESS DESCRIPTION AND SIC CODE:**

SIC Description: Natural gas compressor station  
SIC Code: 4922

**5. SUBMITTALS:**

**6. REVIEWER'S NOTES:**

In order to avoid confusion with the final permit issued on November 13, 1998, and agreed upon changes in the Permit Appeal Resolution (PAR), the permit number is being changed from 1102-AOP-R0 to 1102-AOP-R1. There were no physical changes in the operation of the facility.

**7. COMPLIANCE STATUS:** The following summarizes the current compliance status of the facility including active/pending enforcement actions and recent compliance activities and issues: The facility is in compliance.

**8. APPLICABLE REGULATIONS:**

**A. Applicability**

Did the facility undergo PSD review in this permit (i.e., BACT, Modeling, et cetera) (Y/N)   N    
Has this facility underwent PSD review in the past (Y/N)   N   Permit # \_\_\_\_\_

Is this facility categorized as a major source for PSD? (Y/N)  N   
 \$ 100 tpy and on the list of 28 (100 tpy)? (Y/N)  N   
 \$ 250 tpy all other (Y/N)  N

**B. PSD Netting**

PSD Netting was not required

**C. Source and Pollutant Specific Regulatory Applicability**

The facility is not subject to any NSPS

**9. EMISSION CHANGES:**

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

<b>Plantwide Permitted Emissions (ton/yr)</b>			
<b>Pollutant</b>	<b>Air Permit 1102-AOP-R0</b>	<b>Air Permit 1102-AOP-R1</b>	<b>Change</b>
VOC	32.4	32.4	0
CO	213.4	213.4	0
NO <sub>x</sub>	245.8	245.8	0
Acetaldehyde	1.16	1.16	0
Acrolein	3.42	3.42	0
Formaldehyde	27.35	27.35	0
Benzene	0.21	0.21	0
Methanol	1.22	1.22	0

**10. MODELING:**

**A. 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 for PM<sub>10</sub>, SO<sub>2</sub>, and VOC.

Pollutant	Emission Rate (lb/hr)	NAAQS Standard (µg/m <sup>3</sup> )	Averaging Time	Highest Concentration (µg/m <sup>3</sup> )	% of NAAQS
NO <sub>x</sub>	75.7	100	Annual	11.22	0%
CO	50.4	10,000	8-hour	1470	15%
		40,000	1-hour	2100	5%

## 11. 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 PAER was deemed by the Department 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?
Acetaldehyde	45	4.95	0.27	Yes
Acrolein	0.23	0.0253	0.79	No
Formaldehyde	1.5	0.165	6.24	No
Benzene	1.6	0.176	0.06	Yes
Methanol	262	28.82	0.30	Yes

### 2nd Tier Screening (PAIL)

SCREEN3 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, $\mu\text{g}/\text{m}^3$ ) = 1/100 of Threshold Limit Value	Modeled Concentration ( $\mu\text{g}/\text{m}^3$ )	Pass?
Acrolein	2.5	0.12	Yes
Formaldehyde	15	0.92	Yes

**12. CALCULATIONS:**

SN	Emission Factor Source (AP-42, Testing, etc)	Emission Factor and units (lbs/ton, lbs/hr, etc)	Control Equipment Type (if any)	Control Equipment Efficiency	Comments (Emission factor controlled/uncontrolled, etc)
01-05 and 12	Testing	Test Results			

**13. TESTING REQUIREMENTS:**

This permit requires stack testing of the following sources.

SN(s)	Pollutant	Test Method	Test Interval	Justification For Test Requirement
01-04	CO NO <sub>x</sub>	7E 10	One half of compressor engines every 5 years	19.702

**14. MONITORING OR CEMS**

There are no CEMS at the facility

**15. 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)**
05	Hours of operation	500 hrs	12 month rolling sum	Y
12	Hours of operation	168 hrs	12 month rolling sum	Y

\* Indicate frequency of recording required for the item (Continuously, hourly, daily, etc.)

\*\* Indicates whether the item needs to be included in reports

**16. OPACITY**

SN	Opacity %	Justification (NSPS limit, Dept. Guidance, etc)	Compliance Mechanism (daily observation, weekly, control equipment operation, etc)
01-05 and 12	5	18.501	Burn natural gas.

**17. DELETED CONDITIONS:**

The following Specific Conditions were included in the previous permit, but deleted for the current permitting action.

There are no deleted conditions.

**18. VOIDED, SUPERSEDED OR SUBSUMED PERMITS**

List all active permits for this facility which are voided/superseded/subsumed by issuance of this permit.

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CSN #: 30-0081  
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**19. CONCURRENCE BY:**

The following supervisor concurs with the permitting decision:

\_\_\_\_\_  
*Tom Rheume, P.E.*