

## STATEMENT OF BASIS

### *for issuance of Draft Air Permit No. 972-AOP-R1*

**1. PERMITTING AUTHORITY:**

Arkansas Department of Pollution Control and Ecology  
8001 National Drive  
Post Office Box 8913  
Little Rock, Arkansas 72219-8913.

**2. APPLICANT:**

Arkansas Western Gas Company - Woolsey Compressor Station  
County Road 508  
Ozark, Arkansas 72949

**3. PERMIT WRITER:**

James G. Siganos, P. E.

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

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

**5. SUBMITTALS:** May 10, 2003

**6. REVIEWER'S NOTES:**

Permit No. 972-AOP-R1 is being issued to Arkansas Western Gas Company (AWG) Woolsey compressor station as a renewal. The reciprocating Combustion Engine (RICE) MACT (40CFR §63, Subpart ZZZZ) will probably become effective during the permit term. The final decision is scheduled to be promulgated on February 28, 2004. There are no physical changes, and no new construction or modification is being proposed. However, there are some small changes in the emission rates, which are a result of calculation accuracy

**7. EMISSION CHANGES:**

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

<b>Plant wide Permitted Emissions (ton/yr)</b>			
<b>Pollutant</b>	<b>Air Permit 972-AOP-R0</b>	<b>Air Permit 972-AOP-R1</b>	<b>Change</b>
VOC	33.9	33.6	-0.3
CO	75.8	75.3	-0.5
NO <sub>x</sub>	134.3	132.3	-2.0
Formaldehyde	5.4	4.97	-0.43
Acrolein	0.9	0.52	-0.38

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

There are no known active/pending enforcement activities regarding this facility. AWG plans to meet all future regulatory requirements on a timely basis.

**9. 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)   Y  

\$ 100 tpy and on the list of 28 (100 tpy)? (Y/N)   N  

\$ 250 tpy all other (Y/N)   Y  

B. PSD Netting

Was netting performed to avoid PSD review in this permit? (Y/N)   N  

C. Source and Pollutant Specific Regulatory Applicability **N/A**

<b>Source</b>	<b>Pollutant</b>	<b>Regulation [NSPS, NESHAP (Part 61 &amp; Part 63), or PSD <u>only</u>]</b>
None		

**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.

<b>Pollutant</b>	<b>Emission Rate (lb/hr)</b>	<b>NAAQS Standard (<math>\mu\text{g}/\text{m}^3</math>)</b>	<b>Averaging Time</b>	<b>Highest Concentration (<math>\mu\text{g}/\text{m}^3</math>)</b>	<b>Back-ground</b>	<b>% of NAAQS</b>
NO <sub>x</sub>	30.4	100	Annual	37.6	N/A	38%
CO	17.3	10,000	8-hour	148.6	N/A	1.5%
		40,000	1-hour	212.3	N/A	1%

**B. 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 ( $\text{mg}/\text{m}^3$ ), as listed by the American Conference of Governmental Industrial Hygienists (ACGIH).

<b>Pollutant</b>	<b>TLV (<math>\text{mg}/\text{m}^3</math>)</b>	<b>PAER (lb/hr) = 0.11*TLV</b>	<b>Proposed lb/hr</b>	<b>Pass?</b>
Formaldehyde	1.5	0.165	1.14	No
Acrolein	0.23	0.26	0.14	No

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.

<b>Pollutant</b>	<b>(PAIL, <math>\mu\text{g}/\text{m}^3</math>) = 1/100 of Threshold Limit Value</b>	<b>Modeled Concentration (<math>\mu\text{g}/\text{m}^3</math>)</b>	<b>Pass?</b>
Formaldehyde	15.0	3.36	Yes.
Acrolein	2.3	0.18	Yes

**11. CALCULATIONS:**

<b>SN</b>	<b>Emission Factor Source (AP-42, Testing, etc)</b>	<b>Emission Factor and units (lbs/ton, lbs/hr, etc)</b>	<b>Control Equipment Type (if any)</b>	<b>Control Equipment Efficiency</b>	<b>Comments (Emission factor controlled/uncontrolled, etc)</b>
01 thru 04	Equipment Manufacturer + stack testing for NO <sub>x</sub> and CO	g/bhp-hr	None	NA	emission factors are uncontrolled
01 thru 04	Formaldehyde calculations were derived using GRI factors converted from AP-42 factor units.	g/bhp-hr	None	NA	emission factors are uncontrolled

**12. TESTING REQUIREMENTS:**

This permit requires stack testing of the following sources.

<b>SN(s)</b>	<b>Pollutant</b>	<b>Test Method</b>	<b>Test Interval</b>	<b>Justification For Test Requirement</b>
SN-01 thru SN-04	NO <sub>x</sub> CO	7E 10	Upon Title V renewal	Compressor engine will be tested every 5 years as confirmation of the permit limits

**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**

There are no record keeping requirements (such as throughput, fuel usage, VOC content of coating, etc) that must be tracked and recorded for the current permit action.

**15. OPACITY**

<b>SN</b>	<b>Opacity %</b>	<b>Justification (NSPS limit, Dept. Guidance, etc)</b>	<b>Compliance Mechanism (daily observation, weekly, control equipment operation, etc)</b>
01 thru SN-04	5%	Department Guidance	Natural Gas Fuel Only

**16. DELETED CONDITIONS:**

No Specific Conditions have been deleted for the current permitting action.

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

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

Permit #
972-AOP-R0

**18. CONCURRENCE BY:**

The following supervisor concurs with the permitting decision:

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*Thomas Rheaume, P.E.*