

## STATEMENT OF BASIS

*for the issuance of Draft Air Permit # 1362-AOP-R3*

1. PERMITTING AUTHORITY:

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

2. APPLICANT:

SEECO, Inc. - Stockton Compressor Station  
South of Interstate 40, West of County Road 64, North of State Highway 164  
Ozark, Arkansas 72949

3. PERMIT WRITER:

Siew Low

4. PROCESS DESCRIPTION AND NAICS CODE:

NAICS Description: Natural Gas Pipeline Compressor Station  
NAICS Code: 486210

5. SUBMITTALS: April 21, 2004.

6. REVIEWER'S NOTES:

Stack testing performed at SN-02 on February 2004 showed the NO<sub>x</sub> and CO passed the 1362-AOP-R1's permitted limit of 7.3 lb/hr and 29.1 lb/hr respectively. The emission rates of SN-02 from Permit #1362-AOP-R2 were calculated using the manufacturer data dated August 8, 1989, and the permitted NO<sub>x</sub> and CO hourly emission rates of SN-02 were lower to 5.1 lb/hr and to 20.4 lb/hr respectively. As the result of this new lower permitted emission rates, the hourly emission rates of SN-02 could be a compliance issue. SN-02 is an extremely old engine and there is no specific vendor information available for that particular engine model. This modification revises the permitted emission rates of SN-02 by using more representative emission factors for NO<sub>x</sub>, CO, and VOC. The updated factors are from the 2003 engine manufacturer data.

7. 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 active/pending enforcement actions or recent compliance activities regarding

this facility.

8. APPLICABLE REGULATIONS:

NSPS (Y/N) N If yes, subpart  
 NESHAP (Y/N) N If yes, subpart  
 PSD applicability (Y/N) N  
 Is facility on 28 list (100 tpy)? (Y/N) N  
 Was netting performed to avoid PSD review (Y/N) N

Indicate increases and decreases used in netting for PSD purposes only.

Subject to 112 (g) requirements (Y/N)  N   
 Subject to CAM requirements (Y/N)  N

9. EMISSION CHANGES:

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

Plantwide Permitted Emissions (ton/yr)			
Pollutant	Air Permit 1362-AOP-R2	Air Permit 1362-AOP-R3	Change
PM/PM <sub>10</sub>	0.8	0.8	0
SO <sub>2</sub>	0	0	0
VOC	37.4	39.7	+2.3
CO	199.8	206.1	+6.3
NO <sub>x</sub>	74.0	74.5	+0.5
Acrolein	0.54	0.54	0
Formaldehyde	1.79	1.79	0
n-Hexane	0.12	0.12	0

10. MODELING:

A. Criteria Pollutants

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
NO <sub>x</sub>	not required, emissions are < 100 tons per year				
VOC	not applicable, emissions are < 500 tons per year				
CO	77.0	10,000	8-hour	211	2.11%
		40,000	1-hour	311	0.77%

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).

Pollutant	TLV ( $\text{mg}/\text{m}^3$ )	PAER (lb/hr) = 0.11*TLV	Proposed lb/hr	Pass?
Acrolein	0.23	0.0253	0.15	No
Formaldehyde	0.37	0.0407	0.48	No
n-Hexane	176	19.38	0.04	Yes

**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.

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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	0.47	Yes
Formaldehyde	15.0*	1.89	Yes

\* Surrogate screening value adopted by ADEQ (see Steve Patrick memo of October 19, 1998).

11. 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 and 02	<p>manufacturer's data</p> <p>VOC CO NO<sub>x</sub></p> <p>manufacturer's data</p> <p>VOC CO NO<sub>x</sub></p> <p>HAPs – AP-42, Table 3.2-2 and 3.2-3</p>	<p>For SN-01</p> <p>2 g/hp-hr 28 g/hp-hr 7 g/hp-hr</p> <p>For SN-02</p> <p>2.3 g/hp-hr 32 g/hp-hr 8.5 g/hp-hr</p>	none	-	-
03 and 04	<p>manufacturer's data</p> <p>VOC CO NO<sub>x</sub></p> <p>HAPs – AP-42, Table 3.2-2 and 3.2-3</p>	<p>1 g/hp-hr 2.65 g/hp-hr 1.5 g/hp-hr</p>	none	-	-

13. TESTING REQUIREMENTS:

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This permit requires stack testing of the following sources.

SN(s)	Pollutant	Test Method	Test Interval	Justification For Test Requirement
01, 02, 03, 04	CO	10	One-half of each engine type every five years.	Standard for compressor stations. See Plantwide Condition #8 for details.
	NO <sub>x</sub>	7E		

14. MONITORING OR CEMS

There are no CEMS or monitoring requirements in this permit.

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)**
01, 02	hours of operation - total both units	8760 hours per 12 consecutive months	update daily	Yes

\* 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, 02, 03, 04	5	natural gas fired	use of natural gas

17. DELETED CONDITIONS:

The following Specific Conditions were included in the previous permit, but deleted for the

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current permitting action.

<b>Former SC</b>	<b>Justification for removal</b>
	None

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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1362-AOP-R2

19. CONCURRENCE BY:

The following supervisor concurs with the permitting decision:

\_\_\_\_\_  
*Lyndon Poole, P.E.*