

STATEMENT OF BASIS

For the issuance of Draft Air Permit # 1362-AOP-R5 AFIN: 24-00092

1. PERMITTING AUTHORITY:

Arkansas Department of Environmental Quality
5301 Northshore Drive
North Little Rock, Arkansas 72118-5317

2. APPLICANT:

SEECO, Inc. (Stockton Compressor Station)
South of I-40, West of CR 64, North of Hwy 64
Ozark, Arkansas 72949

3. PERMIT WRITER:

Adam McDaniel

4. NAICS DESCRIPTION AND CODE:

NAICS Description: Support Activities for Oil and Gas Operations
NAICS Code: 213112

5. SUBMITTALS:

9/13/2013

6. REVIEWER'S NOTES:

SEECO, Inc. owns and operates a natural gas transmission pipeline compressor station near Ozark, Arkansas, known as the Stockton Compressor Station. The facility submitted an application for a permit renewal which included modifications to the permit. They included permitting three glycol dehydrators (SN-10, SN-11, and SN-12) previously listed as insignificant and adding applicable NESHAP 40 CFR Part 63 Subpart ZZZZ conditions to the four natural gas compressors (SN-01, SN-02, SN-03, and SN-04). The total annual permitted emission rate limit changes associated with this modification includes: +0.8 tpy PM/PM₁₀, +0.6 tpy SO₂, +3.7 tpy VOC, +1.7 tpy CO, +1.7 tpy NO_x, +0.036 tpy 1,3-Butadiene, +0.862 tpy Acetaldehyde, +0.039 tpy Acrolein, +0.181 tpy Formaldehyde, +0.017 tpy POM, and -0.12 tpy Hexane.

7. COMPLIANCE STATUS:

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

The facility was last inspected January 8th, 2013 which revealed no violations.

8. PSD APPLICABILITY:

- a) Did the facility undergo PSD review in this permit (i.e., BACT, Modeling, etc.)? N
- b) Is the facility categorized as a major source for PSD? N
- Single pollutant ≥ 100 tpy and on the list of 28 or single pollutant ≥ 250 tpy and not on list, or
 - CO₂e potential to emit $\geq 100,000$ tpy and ≥ 100 tpy/ ≥ 250 tpy of combined GHGs?

If yes, explain why this permit modification is not PSD.

9. GHG MAJOR SOURCE (TITLE V):

Indicate one:

- Facility is classified as a major source for GHG and the permit includes this designation
- Facility does not have the physical potential to be a major GHG source
- Facility has restrictions on GHG or throughput rates that limit facility to a minor GHG source. Describe these restrictions: _____

10. SOURCE AND POLLUTANT SPECIFIC REGULATORY APPLICABILITY:

Source	Pollutant	Regulation (NSPS, NESHAP or PSD)
01-04	CO, NO _x	NESHAP 40 CFR Part 63 Subpart ZZZZ
10, 11, 12	Benzene	NESHAP 40 CFR Part 63 Subpart HHH

NSPS 40 CFR Part 60 Subpart OOOO rule was published August 16, 2012 which impacts the following affected sources that were installed after August 23, 2011 – hydraulically fractured well completions, pneumatic bleed controllers, storage vessels, reciprocating compressors and wet seal compressors. SEECO has not installed any new sources since August 23, 2011 which makes the facility not subject to NSPS 40 CFR Part 60 Subpart OOOO.

NESHAP 40 CFR Part 63 Subpart HH is not applicable because the facility is not a production facility.

11. EMISSION CHANGES AND FEE CALCULATION:

See emission change and fee calculation spreadsheet in Appendix A.

12. NAAQS EVALUATIONS AND NON-CRITERIA POLLUTANTS:

a) NAAQS:

Pursuant to Act 1302 of the Regular Session of the 89th General Assembly of the State of Arkansas, no dispersion modeling was performed by ADEQ because it was not voluntarily proposed and agreed to by the facility. The facility has submitted other information to support NAAQS compliance that was evaluated by the Department and found acceptable. A summary of that information follows:

“Title V permit renewal applications that do not include construction for new sources or modifications to existing sources will not include a review of emissions against the NAAQS effective at the time of renewal. Therefore, neither an owner/operator declaration related to use/consideration of air dispersion modeling for criteria pollutants nor other evidence is necessary”

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 Department

has deemed the PAER to be the product, in lb/hr, of 0.11 and the Threshold Limit Value (mg/m³), as listed by the American Conference of Governmental Industrial Hygienists (ACGIH).

Pollutant	TLV (mg/m ³)	PAER (lb/hr) = 0.11 × TLV	Proposed lb/hr	Pass?
Acrolein	0.23	0.0253	0.1327	No
1,3-Butadiene	4.424	0.48664	0.0105	Yes
Acetaldehyde	45.04	4.9544	0.2056	Yes
Formaldehyde	0.3684	0.040524	1.3189	No
POM	0.2	0.022	0.0046	Yes

2nd Tier Screening (PAIL)

AERMOD 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 (µg/m ³) = 1/100 of Threshold Limit Value	Modeled Concentration (µg/m ³)	Pass?
Acrolein	2.3	1.5	Yes
Formaldehyde	15*	14.92	Yes

*ADEQ Allowable PAIL Limit

13. CALCULATIONS:

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments
01	Waukesha Product Bulletin Dated Aug. 8, 1989 AP-42 3.2-3	VOC= 2.0 g/hp-hr CO= 28.0 g/hp-hr NO _x = 7.0 g/hp-hr <u>lb/MMBtu</u> PM= 1.94E-2 PM ₁₀ = 1.94E-2 SO ₂ = 5.88E-4 1,3-Butadiene= 6.63E-4 Acetaldehyde= 2.79E-3 Acrolein= 2.63E-3 Formaldehyde= 2.05E-2 POM= 1.41E-4	None		SI-4SRB, 587 HP

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments
02	Waukesha Product Bulletin Dated Aug. 8, 1989 AP-42 3.2-3	VOC= 2.0 g/hp-hr CO= 28.0 g/hp-hr NO _x = 7.0 g/hp-hr <u>lb/MMBtu</u> PM= 1.94E-2 PM ₁₀ = 1.94E-2 SO ₂ = 5.88E-4 1,3-Butadiene= 6.63E-4 Acetaldehyde= 2.79E-3 Acrolein= 2.63E-3 Formaldehyde= 2.05E-2 POM= 1.41E-4	None		SI-4SRB, 330 HP
03, 04	Waukesha Product Bulletin Dated Aug. 8, 1989 AP-42 3.2-2	VOC= 1.0 g/hp-hr CO= 2.65 g/hp-hr NO _x = 1.5 g/hp-hr <u>lb/MMBtu</u> PM= 9.99E-3 PM ₁₀ = 9.99E-3 SO ₂ = 5.88E-4 1,3-Butadiene= 2.67E-4 Acetaldehyde= 8.36E-3 Acrolein= 5.14E-3 Formaldehyde= 5.28E-2 POM= 1.62E-4	None		SI-4SLB, 1478 HP
10	VOC GRI-GLYCalc Combustion AP-42 1.4	VOC=0.23 lb/hr= 1.02 tpy <u>lb/MMscf</u> PM= 7.6 PM ₁₀ = 7.6 SO ₂ = 0.6 VOC= 5.5 CO= 84 NO _x = 100 Formaldehyde= 7.5E-2 POM= 6.96E-4	None		1.0 MMBtu/hr

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments
11	VOC GRI-GLYCalc Combustion AP-42 1.4	VOC=0.23 lb/hr= 1.02 tpy lb/MMscf PM= 7.6 PM ₁₀ = 7.6 SO ₂ = 0.6 VOC= 5.5 CO= 84 NO _x = 100 Formaldehyde= 7.5E-2 POM= 6.96E-4	None		2.5 MMBtu/hr
12	VOC GRI-GLYCalc Combustion AP-42 1.4	VOC=0.37 lb/hr= 1.62 tpy lb/MMscf PM= 7.6 PM ₁₀ = 7.6 SO ₂ = 0.6 VOC= 5.5 CO= 84 NO _x = 100 Formaldehyde= 7.5E-2 POM= 6.96E-4	None		0.45 MMBtu/hr

14. TESTING REQUIREMENTS:

The permit requires testing of the following sources.

SN	Pollutants	Test Method	Test Interval	Justification
01-04	CO NO _x	10 7E	Every other engine every five years.	Standard for compressor stations. See Plantwide Condition #8 for details.

15. 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				

16. RECORDKEEPING 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)
01, 02	Hours of operation	8,760 hours per 12 consecutive months	Daily	Yes

Permit #: 1362-AOP-R5

AFIN: 24-00092

Page 6 of 6

SN	Recorded Item	Permit Limit	Frequency	Report (Y/N)
10, 11, 12	Facility-wide actual annual average natural gas throughput	less than 28.3 thousand standard cubic meters per day	Annual	No

17. OPACITY:

SN	Opacity	Justification for limit	Compliance Mechanism
01 - 04, 10, 11, 12	5%	Natural Gas Usage	Only Fire Natural Gas

18. DELETED CONDITIONS:

Former SC	Justification for removal
	None

19. GROUP A INSIGNIFICANT ACTIVITIES:

Source Name	Group A Category	Emissions (tpy)						
		PM/PM ₁₀	SO ₂	VOC	CO	NO _x	HAPs	
							Single	Total
(8) 55 Gallon Engine Oil Drums	A-2			0.09				
Compressors Blowdowns	A-13			0.08				
Fugitive Emissions	A-13			0.06				
Total	A-13			0.14				

20. VOIDED, SUPERSEDED, OR SUBSUMED PERMITS:

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

Permit #
1362-AOP-R4

21. CONCURRENCE BY:

The following supervisor concurs with the permitting decision.



Phillip Murphy, P.E.

APPENDIX A – EMISSION CHANGES AND FEE CALCULATION

Fee Calculation for Major Source

Revised 08-26-13

Facility Name: SEECO, Inc. (Stockton Compressor Station)
 Permit Number: 1362-AOP-R5
 AFIN: 24-00092

\$/ton factor	23.42	Annual Chargeable Emissions (tpy)	119.7
Permit Type	Modification	Permit Fee \$	1000

Minor Modification Fee \$	500
Minimum Modification Fee \$	1000
Renewal with Minor Modification \$	500

Check if Facility Holds an Active Minor Source or Minor Source General Permit

If Hold Active Permit, Amt of Last Annual Air Permit Invoice \$ 0

Total Permit Fee Chargeable Emissions (tpy) 6.8

Initial Title V Permit Fee Chargeable Emissions (tpy)

HAPs not included in VOC or PM: Chlorine, Hydrazine, HCl, HF, Methyl Chloroform, Methylene Chloride, Phosphine, Tetrachloroethylene, Titanium Tetrachloride

Air Contaminants: All air contaminants are chargeable unless they are included in other totals (e.g., H2SO4 in condensable PM, H2S in TRS, etc.)

Pollutant (tpy)	Check if Chargeable Emission	Old Permit	New Permit	Change in Emissions	Permit Fee Chargeable Emissions	Annual Chargeable Emissions
PM		0.8	1.6	0.8		
PM ₁₀		0.8	1.6	0.8	0.8	1.6
SO ₂		0	0.6	0.6	0.6	0.6
VOC		38	41.7	3.7	3.7	41.7
CO		199.7	201.4	1.7		
NO _x		74.1	75.8	1.7	1.7	75.8
1,3-Butadiene	<input type="checkbox"/>	0	0.036	0.036		
Acetaldehyde	<input type="checkbox"/>	0	0.8622	0.8622		
Acrolein	<input type="checkbox"/>	0.52	0.5598	0.0398		
Formaldehyde	<input type="checkbox"/>	5.29	5.471298	0.181298		
POM	<input type="checkbox"/>	0	0.017912	0.017912		
Hexane	<input type="checkbox"/>	0.12	0	-0.12		