

STATEMENT OF BASIS

For the issuance of Draft Air Permit # 0813-AR-15 AFIN: 63-00094

1. PERMITTING AUTHORITY:

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

2. APPLICANT:

Rineco Chemical Industries, Inc.
1007 Vulcan Road
Haskell, Arkansas 72015

3. PERMIT WRITER:

Adam McDaniel

4. NAICS DESCRIPTION AND CODE:

NAICS Description: Hazardous Waste Treatment and Disposal
NAICS Code: 562211

5. SUBMITTALS:

11/7/2013

6. REVIEWER'S NOTES:

Rineco owns and operates a facility located at 1007 Vulcan Road in Haskell, Arkansas. This facility processes spent solvents and other waste organic materials for resale as either fuel or recycled solvents. Some of the materials processes are regulated as hazardous wastes under provisions of the federal Resource Conservation and Recovery Act (RCRA). The facility submitted a De Minimis Modification Application to relocate Shredder (M-106) to vent solely to TOU-103 (SN-08) and to remove the mobile emergency generator (SN-17) as a permitted source. The process description was updated to reflect these changes, and the emergency generators (SN-16, SN-18, and SN-19) emission calculations were updated to 500 hours per year. The total annual permitted emission rate limit changes associated with this modification includes: +0.2 tpy PM/PM₁₀, +0.2 tpy SO₂, +0.4 tpy VOC, +1.0 tpy CO, and +5.3 tpy NO_x.

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 on April 15 and 16, 2008 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 Status:

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)
02	VOC	NSPS 40 CFR Part 60 Subpart Kb
14	NO _x	NSPS 40 CFR Part 60 Subpart Dc
16, 18, 19	HAPs	NESHAP 40 CFR Part 63 Subpart ZZZZ
18	SO ₂	NSPS 40 CFR Part 60 Subpart IIII
19	VOC, CO, NO _x	NSPS 40 CFR Part 60 Subpart JJJJ

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. No other information was submitted by the applicant. Criteria pollutants were not evaluated for impacts on the NAAQS.

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).

No re-modeling was done in this modification (Permit #0813-AR-15) because there were no emission rate limit changes for HAPs

Pollutant	TLV (mg/m ³)	PAER (lb/hr) = 0.11 × TLV	Proposed lb/hr	Pass?
HCl	2.98	0.825	0.83	N

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.

No re-modeling was done in this modification (Permit #0813-AR-15) because there were no emission rate limit changes for HAPs

Pollutant	PAIL ($\mu\text{g}/\text{m}^3$) = 1/100 of Threshold Limit Value	Modeled Concentration ($\mu\text{g}/\text{m}^3$)	Pass?
HCl	29.8	1.31	Y

13. CALCULATIONS:

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments
01, 02, 08, 10	AP-42 1.4, vent combined with CO ₂ from the tank battery		Thermal Oxidation Unit	99%	All HAPs are considered VOCs to be conservative
03	Stack Test		spray tower	95%	HCl removal
			bag house	99%	PM removal
12, 14, & 15	AP-42 1.4		None		
16, 18	AP-42 3.3-1		None		Emissions calculated at 500 hours per year
19	AP-42 3.2-2		None		Emissions calculated at 500 hours per year

14. TESTING REQUIREMENTS:

The permit requires testing of the following sources.

SN	Pollutants	Test Method	Test Interval	Justification
03	PM	1 through 5	5 years	Initial test completed with AR-3 and subsequent testing every 5 years thereafter

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)
01, 02, 08, & 10	Exhaust Stack Temperature	Recorder	Continuously	N

SN	Parameter or Pollutant to be Monitored	Method (CEM, Pressure Gauge, etc.)	Frequency	Report (Y/N)
03	Secondary Chamber Temperature	Recorder	Continuously	N
03	Bag house ΔP	Gauge	Twice Weekly	N
03	Spray tower ΔP	Gauge	Twice Weekly	N
03	O ₂ , CO, HCl	CEM	Continuously, when unit is in operation	Y
Facility	Vent to atmosphere	Distributive Control System	Continuously	Y
16, 18, 19	Hours of Operation	Non-Resettable Hour Meter	Continuously	N

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)
Facility	Benzene waste processed	less than 11 tpy	Monthly	N
16, 18, 19	Maintenance	When Necessary	Monthly	N
16, 18, 19	Hours of Operation	500 per year	Monthly	N

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

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

17. OPACITY:

SN	Opacity	Justification for limit	Compliance Mechanism
01, 02, 08, 10, 12, 14, & 15	5%	Department Guidance	Fuel burned is all light hydrocarbons
03	5%	Department Guidance	Fuel burned is all light hydrocarbons
16, 18, & 19	5%	Department Guidance	Inspector Observation

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
Start-up Boiler- 6000 lbs/hr (7.5 MMBtu/hr)	A-1	0.25	0.02	0.19	2.76	3.29		
Natural Gas-Fired Heater (4.0 MMBtu/hr)	A-1	0.14	0.02	0.1	1.48	1.76		
Natural Gas-Fired CO ₂ Vaporizer	A-1	0.04	0.01	0.03	0.37	0.44		
Natural Gas-Fired CO ₂ Vaporizer	A-1	0.04	0.01	0.03	0.37	0.44		

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Source Name	Group A Category	Emissions (tpy)						
		PM/PM ₁₀	SO ₂	VOC	CO	NO _x	HAPs	
							Single	Total
TOTAL	A-1	0.47	0.06	0.35	4.98	5.93		
Two (2) laboratory equipment/vents	A-5							
Water Tank #1 (59,000 Gal)	A-13							
Water Tank #2 (118,000 Gal)	A-13							

20. VOIDED, SUPERSEDED, OR SUBSUMED PERMITS:

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

Permit #
0813-AR-14

APPENDIX A – EMISSION CHANGES AND FEE CALCULATION

Fee Calculation for Minor Source

Revised 08-26-13

Facility Name: Rineco Chemical
Industries, Inc.
Permit Number: 0813-AR-15
AFIN: 63-00094

			Old Permit	New Permit
\$/ton factor	23.42	Permit Predominant Air Contaminant	39.4	44.7
Minimum Fee \$	400	Net Predominant Air Contaminant Increase	5.3	
Minimum Initial Fee \$	500			
		Permit Fee \$	400	
Check if Administrative Amendment	☐	Annual Chargeable Emissions (tpy)	44.7	

Pollutant (tpy)	Old Permit	New Permit	Change
PM	12.6	12.8	0.2
PM ₁₀	12.6	12.8	0.2
SO ₂	1.4	1.6	0.2
VOC	22.9	23.3	0.4
CO	11.3	12.3	1
NO _x	39.4	44.7	5.3
HCl	2.19	2.19	0