

STATEMENT OF BASIS

For the issuance of Draft Air Permit # 0759-AR-10 AFIN: 47-00194

1. PERMITTING AUTHORITY:

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

2. APPLICANT:

Evonik Cyro, LLC
1500 Richard Prewitt Drive
Osceola, Arkansas 72370

3. PERMIT WRITER:

Joseph Hurt

4. NAICS DESCRIPTION AND CODE:

NAICS Description:
Unlaminated Plastics Film and Sheet (except Packaging) Manufacturing
NAICS Code:
326113

5. SUBMITTALS:

7/14/2014

6. REVIEWER'S NOTES:

Evonik Cyro, LLC (CYRO) owns and operates a facility at 1500 Richard Prewitt Drive, Osceola, which manufactures polymer pellets and sheets. CYRO has proposed to remove sheet line 3 (SN-55). The total permitted emission decreases include 0.5 tpy of PM/PM₁₀, 0.5 tpy of SO₂, 1.0 tpy of VOC, 6.2 tpy of CO, 0.5 tpy of NO_x, 0.5 tpy of Single HAP, and 1.0 tpy of Combination HAP.

7. COMPLIANCE STATUS:

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

No compliance issues were noted during the last inspection conducted on July 2, 2014.

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
- CO_2e 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)
01, 02, 03, 19	VOC, Record Tank Size	40 CFR Part 60, Subpart Kb

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:

Based on Department procedures for review of non-criteria pollutants, emissions of non-criteria pollutants are below thresholds of concern.

13. CALCULATIONS:

SN	Emission Factor Source	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments
1, 2, & 3	Tanks	VOC = 0.1 lb/hr MMA = 0.1 lb/hr			
5 & 50	Manufacturer's estimate	PM = 0.1 lb/hr SO ₂ = 0.1 lb/hr VOC = 0.1 lb/hr CO = 0.8 lb/hr NO _x = 1.1 lb/hr	None		Natural gas combustion
22, 27-30, 52-54, 58	Manufacturer's specifications	PM = 0.1 lb/hr 5 mg/m ³ dust in the air outlet	Bag Filter	99.95%	Maximum annual possible
31 & 32	Manufacturer's estimate & specifications	PM = 0.1 lb/hr SO ₂ = 0.1 lb/hr VOC = 0.2 lb/hr CO = 1.4 lb/hr NO _x = 0.1 lb/hr MMA = 0.1 lb/hr EA = 0.1 lb/hr			
35	Equipment specifications	PM = 0.2 lb/hr			Maximum annual possible
42	Equipment specifications	PM = 0.4 lb/hr			Maximum annual possible
49 & 51	Manufacturer's specifications	PM = 0.1 lb/hr SO ₂ = 0.1 lb/hr VOC = 0.1 lb/hr CO = 2.6 lb/hr NO _x = 0.1 lb/hr MMA = 0.9 lb/hr	Catalytic Oxidizer	99.0%	
56	Worst case based on manufacturer's specifications	PM = 0.1 lb/hr 12.0 grains/A.C.F.	Bag Filter	99.9%	
58	Manufacturer's specifications	PM = 0.1 lb/hr	Bag Filter	99.9%	
59	EIIP	MMA = 0.07 lb/hr			EIIP Chapter 4.4

14. TESTING REQUIREMENTS:

The permit requires testing of the following sources.

SN	Pollutants	Test Method	Test Interval	Justification
31, 32, 49, 51	Methyl Methacrylate, Methyl Acrylate	#18	Once every five years	19.702

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)
05 & 50	Natural Gas Usage	Meter	Monthly	N
49 & 51	Catalytic Oxidizer Temperature	CPMS	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)
05, 50	Natural Gas Usage	78.84 MMcf per rolling 12-month period	Monthly	N
60	Acrylic Sheets processed	24,226,700 pounds per consecutive 12-month period	Monthly	N
01, 03, 19	Tank Dimensions and Volume Calculation	75 m ³	Once	N
02	Tank Dimensions and Volume Calculation	151 m ³	Once	N

SN	Recorded Item	Permit Limit	Frequency	Report (Y/N)
01	VOC stored and the maximum true vapor pressure of that VOC	Determined by §60.116b(e)(3)	As necessary	N
01	Maximum tank turnovers	100 turnovers per consecutive 12-month period	Monthly	N
02	Maximum tank turnovers	100 turnovers per consecutive 12-month period	Monthly	N
03	Maximum tank turnovers	30 turnovers per consecutive 12-month period	Monthly	N

17. OPACITY:

SN	Opacity	Justification for limit	Compliance Mechanism
05, 22, 27 – 32, 35, 42, 49 – 54, 56, 58, & 60	5%	§18.501	Upon inspection

18. DELETED CONDITIONS:

Former SC	Justification for removal
	N/A

19. GROUP A INSIGNIFICANT ACTIVITIES:

Source Name	Group A Category	Emissions (tpy)						
		PM/PM10	SO2	VOC	CO	NO _x	HAPs	
							Single	Total
No new insignificant activities were added with this permitting action.								

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20. VOIDED, SUPERSEDED, OR SUBSUMED PERMITS:

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

Permit #
0759-AR-9

APPENDIX A – EMISSION CHANGES AND FEE CALCULATION

Fee Calculation for Minor Source

Revised 08-26-13

Facility Name: Evonik Cyro, LLC

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			Old Permit	New Permit
\$/ton factor	23.42	Permit Predominant Air Contaminant	12.3	11.8
Minimum Fee \$	400	Net Predominant Air Contaminant Increase	-0.5	
Minimum Initial Fee \$	500			
Check if Administrative Amendment	<input checked="" type="checkbox"/>	Permit Fee \$	0	
		Annual Chargeable Emissions (tpy)	11.8	

Pollutant (tpy)	Old Permit	New Permit	Change
PM	11.8	11.3	-0.5
PM ₁₀	11.8	11.3	-0.5
SO ₂	3.5	3	-0.5
VOC	6.3	5.3	-1
CO	48.4	42.2	-6.2
NO _x	12.3	11.8	-0.5
Single HAP	4	3.5	-0.5
Combination HAP	5.5	4.5	-1