

STATEMENT OF BASIS

For the issuance of Air Permit # 0821-AR-16 AFIN: 60-00416

1. PERMITTING AUTHORITY:

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

2. APPLICANT:

Ashland LLC  
1901 North Redmond Road  
Jacksonville, Arkansas 72076

3. PERMIT WRITER:

Alexander Sudibjo

4. NAICS DESCRIPTION AND CODE:

NAICS Description: Plastics Material and Resin Manufacturing  
NAICS Code: 325211

5. ALL SUBMITTALS:

The following is a list of ALL permit applications included in this permit revision.

Date of Application	Type of Application (New, Renewal, Modification, Deminimis/Minor Mod, or Administrative Amendment)	Short Description of Any Changes That Would Be Considered New or Modified Emissions
11/12/2018	Deminimis	N/A

6. REVIEWER'S NOTES:

With this deminimis modification, the facility is changing the contents of ST-7 (SN-31) to polyester resin and ST-13 (insignificant activity) to MP Diol. There are no changes to the facility's permitted annual emissions.

7. COMPLIANCE STATUS:

The facility was last inspected on December 5, 2016. There were no compliance issues at the time of the inspection.

8. PSD/GHG APPLICABILITY:

a) Did the facility undergo PSD review in this permit (i.e., BACT, Modeling, etc.)? N  
 If yes, were GHG emission increases significant?

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*

If yes for 8(b), explain why this permit modification is not PSD.

9. SOURCE AND POLLUTANT SPECIFIC REGULATORY APPLICABILITY:

Source	Pollutant	Regulation (NSPS, NESHAP or PSD)
33, 34	HAPs	NESHAP 40 CFR Part 63 Subpart ZZZZ
34	Criteria Pollutants	NSPS 40 CFR Part 60 Subpart III

10. PERMIT SHIELD – TITLE V PERMITS ONLY:

Did the facility request a permit shield in this application? N/A

(Note - permit shields are not allowed to be added, but existing ones can remain, for minor modification applications or any Regulation 18 requirement.)

If yes, are applicable requirements included and specifically identified in the permit?

If not, explain why.

For any requested inapplicable regulation in the permit shield, explain the reason why it is not applicable in the table below.

Source	Inapplicable Regulation	Reason
N/A		

11. EMISSION CHANGES AND FEE CALCULATION:

See emission change and fee calculation spreadsheet in Appendix A.

12. AMBIENT AIR EVALUATIONS:

The following are results for ambient air evaluations or modeling.

a) NAAQS

A NAAQS evaluation is not required under the Arkansas State Implementation Plan, National Ambient Air Quality Standards, Infrastructure SIPs and NAAQS SIP per Ark. Code Ann. § 8-4-318, dated March 2017 and the ADEQ Air Permit Screening Modeling Instructions.

b) Non-Criteria Pollutants:

The non-criteria pollutants listed below were evaluated. Based on Department procedures for review of non-criteria pollutants, emissions of all other non-criteria pollutants are below thresholds of concern.

1<sup>st</sup> Tier Screening (PAER)

No new modeling was done for this permit modification. Modeling results were taken from permit #0821-AR-09.

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

Pollutant	TLV ( $\text{mg}/\text{m}^3$ )	PAER (lb/hr) = $0.11 \times \text{TLV}$	Proposed lb/hr	Pass?
Acetone	1187	130	3.53	Yes
Styrene	85.2	9.37	7.5	Yes
Phthalic Anhydride	6.06	0.666	0.3	Yes
Maleic Anhydride	0.401	0.044	1.8	No
Glycols	100	11.0	6.0	Yes
Methanol	262	28.8	0.1	Yes

2<sup>nd</sup> 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 ( $\mu\text{g}/\text{m}^3$ ) = 1/100 of Threshold Limit Value	Modeled Concentration ( $\mu\text{g}/\text{m}^3$ )	Pass?
Maleic Anhydride	4.01	3.93376	Y

c) H<sub>2</sub>S Modeling:

The facility does not have any H<sub>2</sub>S emissions.

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	AP-42 5.2 & Tanks		T.O.	98%	Solvent Based Laminating Adhesive
22	Mass Balance		Carbon Bed	95%	
29	Industry Standard	0.01 gr/dscf	Baghouse	99.9%	
32		0.03 grain/ft <sup>3</sup> 1055 ft <sup>3</sup> /min 1 lb/ 7000 grains	Dust Collector	99.9%	
04, 05, 06, 07, 08	AP-42 1.3 or 1.4 Use Worst Case	-	None		
12		<u>SBLA</u> L=12.46 SPM/T			Drumming
27		<u>Lb/hr</u> = (0.015 grains PM/dscf)*(2,100 cfm) *(60min/hr)*(1 lb/1000 grain) <u>Tpy</u> =lb/hr*(8760/2000)	None		
16-20, 23-26, 28, 31, 35-40	Tanks Program	-	None		

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments
33	AP-42 3.3	Lb/hp-hr PM/PM <sub>10</sub> =2.20 E-3 SO <sub>2</sub> =2.05 E-3 VOC=2.47 E-3 CO=6.68 E-3 NO <sub>x</sub> =0.031	None		
34	AP-42 3.3	Lb/hp-hr PM/PM <sub>10</sub> =2.20 E-3 SO <sub>2</sub> =2.05 E-3 VOC=2.47 E-3 CO=6.68 E-3 NO <sub>x</sub> =0.031	None		

14. TESTING REQUIREMENTS:

The permit requires testing of the following sources.

SN	Pollutants	Test Method	Test Interval	Justification
N/A				

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	Minimum T.O. temperature	CEM	Continuously	No

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	Finished Resin	140,000,000 lbs.	Monthly	N



Source Name	Group A Category	Emissions (tpy)						
		PM/PM <sub>10</sub>	SO <sub>2</sub>	VOC	CO	NO <sub>x</sub>	HAPs	
							Single	Total
Storage Tanks < 250 Gallons	A-2			<0.1				
Tank Transfers	A-3	Incorporated in tank emissions						
900 Gal TDI Storage Tank	A-3			5.0E-6			0.000005	
Double Walled Diesel Tank, 350 Gallons	A-3			4.0E-5				
Diethylene Glycol/ Piperazine Heated Tank, 350 Gallons	A-3			3.5E-5				
Laboratory equipment used exclusively for routine chemical and physical analysis	A-5	<i>Acetone = 420 lbs/yr = 0.21 tpy</i>						
Welding equipment	A-7	0.0017						0.00014
Containers less than 5 gallons which do not emit any detectable VOC or HAP when closed	A-8							
Component Fugitive Emissions	A-13			0.077			<i>Styrene = 0.049, Maleic Anhydride = 0.001, Phthalic Anhydride = 0.002, Ethylene Glycol = 0.024, &amp; Methanol = 0.0001</i>	0.076
Application Laboratory Fugitives	A-13							
Tank Cleanings	A-13			2.8E-4			0.00028	
Propylene Glycol Tank (ST-10)	A-13							
15,000 gal MP Diol Tank (ST-13)	A-13			0.0005				

20. VOIDED, SUPERSEDED, OR SUBSUMED PERMITS:

The following is a list of all active permits voided/superseded/subsumed by the issuance of this permit.

Permit #
0821-AR-15





## APPENDIX A – EMISSION CHANGES AND FEE CALCULATION

