

STATEMENT OF BASIS

For the issuance of Air Permit # 2132-AOP-R5 AFIN: 22-00057

1. PERMITTING AUTHORITY:

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

2. APPLICANT:

Drew Foam Companies, Inc.
1093 Highway 278 East
Monticello, Arkansas 71655

3. PERMIT WRITER:

Kyle Crane

4. NAICS DESCRIPTION AND CODE:

NAICS Description: Polystyrene Foam Product Manufacturing
NAICS Code: 326140

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
3/4/2020	Minor Modification	Installation of 4 new shape molds (SN-04), removal of Basecoat Adhesive process (SN-13)

6. REVIEWER'S NOTES:

Drew Foam Companies, Inc. (Drew Foam) currently operates an expandable polystyrene manufacturing facility that is located at 1093 Highway 278 East in Monticello (Drew County), Arkansas. With this minor modification, the facility is installing four (4) new shape molds (SN-04), updating demonstration of compliance procedures to more accurately reflect operations, removing the Basecoat Adhesive (SN-13) process, and removing the Dust Collecting Cyclone and Cyclone Dust Bagging System (Insignificant

Activity). Annual permitted emissions increase by 0.3 tons per year (tpy) of PM, 0.3 tpy of PM₁₀, 32.3 tpy of VOC, 3.9 tpy of CO, and 4.6 tpy of NO_x. Total HAP emissions are set at 0.20 tpy. Annual permitted emissions decrease by 0.80 tpy of Acetone, 7.90 tpy of Dimethyl Ether, 7.48 tpy of Hexane, and 0.03 tpy of Other HAPs with this modification.

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 January 9, 2019 and was found to be in compliance. EPA ECHO shows “No Violation Identified” for Clean Air Act compliance.

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? N

b) Is the facility categorized as a major source for PSD? Y

- *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.

The facility became a PSD facility with this minor modification, and emission increases are below significance levels.

9. SOURCE AND POLLUTANT SPECIFIC REGULATORY APPLICABILITY:

Source	Pollutant	Regulation (NSPS, NESHAP or PSD)
SN-10	-	NSPS Subpart Dc
SN-15 and SN-16	-	NESHAP Subpart ZZZZ

10. PERMIT SHIELD – TITLE V PERMITS ONLY:

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

(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? N
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.

c) H₂S Modeling:

A.C.A. §8-3-103 requires hydrogen sulfide emissions to meet specific ambient standards. Many sources are exempt from this regulation, refer to the Arkansas Code for details.

Is the facility exempt from the H₂S Standards Y

If exempt, explain: The facility does not emit H₂S

13. CALCULATIONS:

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments
01	Mass Balance	24% of pentane emitted	-	-	4,682 lb/hr beads 8% pentane by weight
02, 02A, 03	1999 BASF Bulletin "Environmental Pentane Emissions During Processing"	27% of pentane emitted	-	-	
04		12% of pentane emitted	-	-	

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments
05, 06, 07, 14		33% of pentane emitted	-	-	
10	AP-42 1.4 - Natural Gas Combustion	<u>lb/MMscf</u> PM/PM ₁₀ : 7.6 SO ₂ : 0.6 VOC: 5.5 CO: 84 NO _x : 100 Total HAP: 1.88	-	-	21.0 MMBtu/hr
15 and 16	AP-42 3.2 - Natural Gas-fired Reciprocating Engines	<u>lb/MMBtu</u> PM/PM ₁₀ : 0.0195 SO ₂ : 0.000588 VOC: 0.0296 CO: 3.72 NO _x : 2.21 Total HAP: 0.137	-	-	4 stroke rich burn

14. TESTING REQUIREMENTS:

The permit requires testing of the following sources.

SN	Pollutants	Test Method	Test Interval	Justification
None				

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, 03, 04, 05, 06, 07, 13,	VOC tpy	280.0	Monthly	Y

SN	Recorded Item	Permit Limit	Frequency	Report (Y/N)
and 14				
01, 02, 03, 04, 05, 06, 07, and 14,	VOC content	8 wt. %	Monthly	Y
10	Fuel Combusted	-	Monthly	Y
15 and 16	Operating hours	500 hours per calendar year each	Monthly	N
15 and 16	Maintenance plan	Specific Conditions 15 and 16	Annually	N

17. OPACITY:

SN	Opacity	Justification for limit	Compliance Mechanism
10	5%	Department Guidance	Inspector Observation
15 and 16	5%	Department Guidance	Inspector Observation

18. DELETED CONDITIONS:

Former SC	Justification for removal
#7-10	SN-13 is being removed with this modification

19. GROUP A INSIGNIFICANT ACTIVITIES:

The following is a list of Insignificant Activities including revisions by this permit.

Source Name	Group A Category	Emissions (tpy)						
		PM/PM ₁₀	SO ₂	VOC	CO	NO _x	HAPs	
							Single	Total
250-gallon used oil tank	A-2			9.0E-05				
Cooling Tower	A-13	9.0E-05						
Scrap Densifier	A-13	3.0E-07						

Permit #: 2132-AOP-R5

AFIN: 22-00057

Page 6 of 6

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 #
2132-AOP-R4

APPENDIX A – EMISSION CHANGES AND FEE CALCULATION

Fee Calculation for Major Source

Revised 03-11-16

Facility Name: Drew Foam Companies, Inc.
 Permit Number: 2132-AOP-R5
 AFIN: 22-00057

\$/ton factor	23.93	Annual Chargeable Emissions (tpy)	291.6
Permit Type	Minor Mod	Permit Fee \$	500

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	<input type="checkbox"/>
If Hold Active Permit, Amt of Last Annual Air Permit Invoice \$	0
Total Permit Fee Chargeable Emissions (tpy)	36.4
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		0.6	0.9	0.3		
PM ₁₀		0.6	0.9	0.3	0.3	0.9
PM _{2.5}		0	0	0		
SO ₂		0.3	0.3	0	0	0.3
VOC		248.5	280.8	32.3	32.3	280.8
CO		4.4	8.3	3.9		
NO _x		5	9.6	4.6	4.6	9.6
Acetone	<input checked="" type="checkbox"/>	0.8	0	-0.8	-0.8	0

Pollutant (tpy)	Check if Chargeable Emission	Old Permit	New Permit	Change in Emissions	Permit Fee Chargeable Emissions	Annual Chargeable Emissions
Dimethyl Ether	<input type="checkbox"/>	7.9	0	-7.9		
Hexane	<input type="checkbox"/>	7.48	0	-7.48		
Other HAPs	<input type="checkbox"/>	0.03	0	-0.03		
Total HAPs	<input type="checkbox"/>	0	0.2	0.2		