

STATEMENT OF BASIS

For the issuance of Draft Air Permit # 0698-AR-24 AFIN: 50-00006

1. PERMITTING AUTHORITY:

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

2. APPLICANT:

Firestone Building Products Company, LLC
1406 Highway 371 North Drive
Prescott, Arkansas 71857

3. PERMIT WRITER:

Joseph Hurt

4. NAICS DESCRIPTION AND CODE:

NAICS Description: Rubber Product Manufacturing for Mechanical Use
NAICS Code: 326291

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
2/15/2018	Modification	N/A

6. REVIEWER'S NOTES:

Firestone Building Products Company owns and operates a rubber roofing manufacturing facility located in Prescott, Arkansas. With this permitting action, Firestone Building Products requested to:

1. Create a Plantwide VOC limit of 95 tons per year (tpy) for all VOC emitting sources;
2. Create a Plantwide Single HAP limit of 9.5 tpy for HAP emitting sources;
3. Create a Plantwide Total HAPs limit of 24.5 tpy for all HAP emitting sources;
4. Remove source specific throughput limits and content limits;

5. Streamline HAP permitting based on the most recent Non-Criteria Pollutant Control Strategy; and
6. Increase operational flexibility by streamlining permit conditions for compliance.

Section VI of the permit has been updated with the latest General Conditions. The permitted emission increases include 0.3 tpy of SO₂, 1.0 tpy of CO, and 4.4 tpy of NO_x. The permitted emission decreases include 15.3 tpy of PM/PM₁₀, 0.01 tpy of Allyl Chloride, 5.9 tpy of Hexane, 0.82 tpy of Methanol, 2.69 tpy of Methylene Chloride, 4.74 tpy of Toluene, 0.02 tpy of Beryllium, 0.02 tpy of Chromium, and 5.56 tpy of Total HAP.

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 13, 2017. The facility was determined to be out of compliance for failing to conduct annual visible observations for the opacity limits assigned for SN-503 and SN-504. A review of ECHO indicates that the facility has been out of compliance in one (1) quarter out of the past 12 quarters. The facility has also had one (1) informal and one (1) formal enforcement actions in the past five (5) years.

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? 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)
SN-503 & SN-504	There are no specific emission limits or pollutants identified, but the rules generally regulate HAPs	40 C.F.R. § 63, Subpart ZZZZ
SN-505 & SN-506	There are no specific emission limits or pollutants identified, but the rules generally regulate Criteria pollutants	40 C.F.R. § 60, Subpart IIII

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? N/A
 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:

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	Control Equipment	Control Equipment Efficiency	Comments
All PM Sources	Testing	Varies	None		PM/PM ₁₀ emissions from all particulate sources are based on testing data from the facility submitted on March 2, 1995 or based on process knowledge.

SN	Emission Factor Source	Emission Factor	Control Equipment	Control Equipment Efficiency	Comments
03, 103, & 104	Testing	lb/lb rubber: 4.2E-04 VOC lb/hr Total HAP: 0.63 (SN-03) 0.29 (SN-103) 0.35 (SN-104)	None		VOC and HAP emission factors are based on stack testing conducted in October 2011 plus a 25% safety factor.
13, 14, 114, 202, 206, 207, 312, 313, 323A, 323B, 330	Source Specific Emission Factors	Varies			VOC and HAP emission factors are based on stack testing conducted in October 2011.
301A, 304, 304A	Source specific emission factor	lb/lb: 6.87E-06 PM/PM ₁₀			Maximum annual capacity of 99,338,400 pounds
08A – 08G	Source Specific Emission Factors	lb/lb rubber: 5.62E-05 VOC lb/hr Total HAP: 0.014 (A - F) 0.005 (G)	--	--	VOC and HAP emission factors are based on stack testing conducted in October 2011 plus a 25% safety factor.
16A & 16B	AP-42: 1.4	lb/MMSCF: 7.6 PM/PM ₁₀ 0.6 SO ₂ 5.5 VOC 84 CO 100 NO _x	--	--	
315	Mass Balance	lb/gal 2.1 VOC No HAPs	--	--	Stack testing for primers in excess of 2.1 lb VOC/gal
316	Mass Balance	lb/gal 1.87 VOC 1.87 Toluene			Automated and Manual rolling operations
317	Source Specific Emission Factors	Varies	--	--	VOC and HAP emission factors are based on stack testing conducted for SN-203 in October 2011.

SN	Emission Factor Source	Emission Factor	Control Equipment	Control Equipment Efficiency	Comments
500, 501	Mass Balance		None		Mass Balance assuming 100% of VOC in raw materials is emitted to atmosphere
502	Source Specific Emission Factor	0.58 lb PM/PM ₁₀ Per mandrel cleaned	--	--	--
503 - 506	AP-42, Table 3.3-1	lb/hp-hr: 2.2E-03 PM 2.05E-03 SO ₂ 2.47E-03 VOC 6.68E-03 CO 0.031 NO _x	--	--	Emergency diesel fire pump, emergency generator, and two (2) diesel operated air compressors
700	Source Specific Emission Factors	lb/lb rubber: 6.50E-05 PM 1.50E-03 VOC	--	--	A single test was conducted on September 26, 2013. Maximum throughput is 3,000 pounds of EPDM per hour and 15,600,000 pounds per year

14. TESTING REQUIREMENTS:

The permit requires testing of the following sources.

SN	Pollutants	Test Method	Test Interval	Justification
03, 08A – 08G	VOC HAPs	Bench scale equivalent to approved test methods	Once every 60 months.	To verify site specific values.
03	VOC	25A	Once every 60 months. The last testing was conducted in October 2016.	

SN	Pollutants	Test Method	Test Interval	Justification
03	HAPs	SW-846 Method 0031 (modified), and/or EPA TO-15 (modified)	Once every 60 months. The last testing was conducted in October 2016.	To verify site specific values.
08A – 08G	VOC HAPs	25A EPA TO-15	Once every 60 months. The last testing was conducted in October 2011.	
700	VOC	25A	Once every 60 months thereafter. The last testing was conducted in August 2014.	

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)
N/A				

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)
MSDS	Kept on site and updated annually	Continuously	No	
16A & 16B	Boiler fuel	Natural gas only	Continuously	No
03, 103, 104	VOC emission factor	4.20E-04 lb VOC/lb rubber	Monthly	No
08A – 08G		5.620E-05 lb VOC/lb rubber	Monthly	No
301A, 304, & 304A	Carbon black unloading	99,338,400 pounds per consecutive 12-month	Monthly	No
Plantwide	VOC emissions	95 tons per rolling 12-month period	Monthly	No
	VOC emission factors and monthly throughput	See Specific Condition 13		

SN	Recorded Item	Permit Limit	Frequency	Report (Y/N)
500	Cold Cleaning Solvent VOC Content	8.9 lb/gal No HAPs	Monthly	No
501	Inks and Cleaners VOC Content	8.0 lb/gal No HAPs	Monthly	No
315	Seam Tape Primer Machine Primer Formulation Limits	2.1 lb/gal (VOC content) or not to exceed 6.3 lb/hr No HAPs	Monthly	No
316	Primer Pre-Tape Formulation Limit	1.96 lb/gal VOC 1.87 lb/gal Toluene	Monthly	No
503 - 506	Hours of operation (each)	500 hours per calendar year	Monthly	No
503 - 506	Hours of operation	Anything in excess of 100 hours per calendar year must demonstrate that the engine still qualifies as an emergency engine as outlined in §60.421(f)	Monthly	No

17. OPACITY:

SN	Opacity	Justification for limit	Compliance Mechanism
13, 206, 207, 323A, 323B, 503 - 506, 700	20%	Department Guidance	Observation
01A, 01B, 02A, 02B, 03, 07, 16A, 16B, 17A, 17B, 18A, 18B, 101A, 101B, 102 -104, 107, 116, 118, 120, 201, 202, 205, 301A, 302, 303, 304, 304A, 305 - 308, 309A, 309B, 310 - 312, 317, 318, 502	5%	Department Guidance	Observation

18. DELETED CONDITIONS:

Former SC	Justification for removal
8, 10, 11, 13, 27, 28	The conditions related to the mixers and autoclaves have been consolidated with the new VOC plantwide bubble. All of the previous VOC emission limits have been removed. All of the previous recordkeeping requirements associated with the previous VOC emissions limits have been consolidated with the plantwide VOC emissions bubble.
15 & 17	The conditions related to the cold cleaning parts have been updated. Monthly and annual maximum usage rate are no longer capped.

Former SC	Justification for removal
18	The condition related to inks and cleaners has been updated. The annual maximum usage rate is no longer capped.
22 - 26	The conditions related to the primer and laminating machines have been consolidated with the new VOC plantwide bubble.
29 & 30	This permitting action did not rely on any confidential information as previously submitted in the December 2011 application. Therefore, these conditions are no longer required.
31	The condition related to Banbury Mixer 11 (SN-203) has been consolidated with the new VOC plantwide bubble.
33	This condition allowed the facility to test fire the emergency diesel fire pump engines on a weekly basis. The internal combustion engine rules in the permit are applicable and contain the necessary requirements allowing the facility to test fire the engines as needed.
34 & 35	The conditions related to the Pre-Tape Operations (SN-316) have been consolidated with the new VOC plantwide bubble.
39 & 40	The conditions related to the stack testing requirements are no longer necessary for SN-16A and SN-16B. These sources only utilize natural gas as fuel.
41 & 42	These testing conditions have been combined.
44 & 45	The conditions related to the White Seam Tape (SN-317) have been consolidated with the new VOC plantwide bubble.
46 & 47	The conditions related to the Devulcanization Process (SN-700) have been consolidated with the new VOC plantwide bubble.
51, 52, 69, & 70	The opacity limit has been moved to Specific Condition 3. The associated compliance mechanism was removed since the Department does not require opacity compliance mechanisms in minor source permits.
65(f, g, h, & i) & 83	These federal requirements have been determined to not apply to the sources at this facility.
77 - 79	These federal requirements are not necessary to have listed in the permit. These conditions are related to manufacturers of certified engines.

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	
Devulcanization paraffinic oil storage tank (10,000 gallon tank)	3			0.0038				0.0038	0.0038

Source Name	Group A Category	Emissions (tpy)						
		PM/PM ₁₀	SO ₂	VOC	CO	NO _x	HAPs	
							Single	Total
Seam Tape Testing Lab Vent	5			0.19			0.095	0.19
Laboratory Oven Vent	5	0.0005		0.14			0.07	0.07
Curing Cooling Tower	13	0.71						
Chiller Cooling Tower	13	0.75						
Process Cooling Tower	13	0.44						
Cooling Tower for Mixtruder	13	0.44						
Day Tanks for SN-317	13			1.09E-4			1.09E-4	1.09E-4
Comerio Line Shredder	13	0.1		0.1			0.06	0.11
Slab Dip/Soap Tanks	13	1.05						

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 #
0698-AR-23

APPENDIX A – EMISSION CHANGES AND FEE CALCULATION

Fee Calculation for Minor Source

Revised 03-11-16

Facility Name: Firestone Building
 Products Company, LLC
 Permit Number: 0698-AR-24
 AFIN: 50-00006

			Old Permit	New Permit
\$/ton factor	23.93	Permit Predominant Air Contaminant	95	95
Minimum Fee \$	400	Net Predominant Air Contaminant Increase	0	
Minimum Initial Fee \$	500			
		Permit Fee \$	400	
Check if Administrative Amendment <input type="checkbox"/>		Annual Chargeable Emissions (tpy)	95	

Pollutant (tpy)	Old Permit	New Permit	Change
PM	52	36.7	-15.3
PM ₁₀	52	36.7	-15.3
PM _{2.5}	0	0	0
SO ₂	0.8	1.1	0.3
VOC	95	95	0
CO	56	57	1
NO _x	69.2	73.6	4.4
Allyl Chloride	0.01	0	-0.01
Hexane	5.9	0	-5.9
Methanol	0.82	0	-0.82
Methylene Chloride	2.69	0	-2.69
Toluene	4.74	0	-4.74
Beryllium	0.02	0	-0.02
Chromium	0.02	0	-0.02
Total HAP*	5.56	0	-5.56
-----	0	0	0
* Total HAP emissions only include	0	0	0
sources SN-03, SN-103, SN-104,	0	0	0
and SN-08A through SN-08G.	0	0	0
-----	0	0	0
Single HAP	0	9.5	9.5
Total HAPs	0	24.5	24.5