STATEMENT OF BASIS

For the issuance of Draft Air Permit # 0698-AR-7 AFIN: 50-00006

1. PERMITTING AUTHORITY:

   Arkansas Department of Environmental Quality
   8001 National Drive
   Little Rock, Arkansas 72219-8913

2. APPLICANT:

   Firestone Building Products, Inc.
   1406 Highway 371 North
   Prescott, Arkansas 71857

3. PERMIT WRITER:

   David Triplett

4. PROCESS DESCRIPTION AND NAICS CODE:

   NAICS Description: Rubber Roofing Manufacturing
   NAICS Code: 326299

5. SUBMITTALS:

   January 12, 2004
   November 19, 2004
   February 25, 2005

6. REVIEWER'S NOTES:

Firestone Building Products, Inc. owns and operates a rubber roofing manufacturing facility located in Prescott, Arkansas. This modification to the Minor Source Air Permit for this facility is issued in order to allow for the following changes at the plant.

- An increase in the allowable daily usage of solvent at the primer operation (SN-315) from 28 to 40 gallons per day,
- An increase in the allowable VOC content of inks and cleaners used at the facility from 6.66 lb/gal to 7.0 lb/gal,
- The addition of an insignificant emission source, the "Seam Tape Testing Lab Vent,"
- The installation of a sixth autoclave (SN-08F),
- An increase in the maximum allowable rubber processed through the K-1 and K-2 mixers from 316 million pounds per year to 432 million pounds per year, and;

- A change in the emission factors used to permit the rubber mixing operations. These operations had previously been permitted based on factors developed by the rubber manufacturer's association (RMA). The facility performed stack testing on the K-2 mixer in 1996 and has requested that those stack test results be the basis for permitted limits for PM/PM_{10} and VOC. The tested emission rates were multiplied by a 25% safety factor in order to set the permitted limits. These test factors are lower than the RMA factors, and result in lower emission estimates from the K1 and K2 mixers.
- The removal of the K2 drop mill (SN-120) as a separate emission point. This source still exists within the plant, but emissions are now routed to the atmosphere through the K2 discharge stack (SN-104).

The additional rubber that is mixed will be shipped off-site for further processing at a "sister" facility located out-of-state. The facility will be limited to no more than 316 million pounds per year of rubber to be further processed beyond the mixing stage at this facility.

7. COMPLIANCE STATUS:

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

There are no current enforcement actions against this facility.

8. APPLICABLE REGULATIONS:

PSD Applicability

Did the facility undergo PSD review in this permit (i.e., BACT, Modeling, etc.)?	N
Has the facility undergone PSD review in the past?	N
Is the facility categorized as a major source for PSD?	N
≥ 100 tpy and on the list of 28?	N
≥ 250 tpy all other?	N

PSD Netting

Was netting performed to avoid PSD review in this permit?	N

If so, indicate increases and decreases used in netting for PSD purposes only.

Source and Pollutant Specific Regulatory Applicability

Source	Pollutant	Regulation (NSPS, NESHAP or PSD)
N/A		

9. EMISSION CHANGES:

The following table summarizes plantwide emission changes associated with this permitting action.

Plantwide Permitted Emissions (ton/yr)			
Pollutant	**Air Permit 698-AR-6**	**Air Permit 698-AR-7**	**Change**
PM/PM_{10}	51.7	48.4	-3.3
SO_2	0.4	0.4	0
VOC	86.3	71.6	-14.7
CO	15.7	15.7	0
NO_X	60.9	60.9	0
1,3-Butadiene	0.04	0.04	0
MEK	0.39	0.39	0
Benzene	3.27	3.27	0
Cumene	0.28	0.28	0
POC	0.17	0.18	0.01
Epichlorohydrin	0.30	0.30	0
Ethylbenzene	0.45	0.45	0
Hexane	0.94	0.95	0.01
m- and p-Xylene	2.27	2.27	0
o-Xylene	0.62	0.62	0
Dichloromethane	0.53	0.53	0
Nickel Compounds	0.04	0.04	0
Phenol	0.04	0.04	0
Toluene	2.94	2.95	0.01
Primer Machine HAPs	3.30	3.30	1.05

10. MODELING:

Criteria Pollutants

Examination of the source type, location, plot plan, land use, emission parameters, and other available information indicate that modeling is not warranted at this time.

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/m^3), as listed by the American Conference of Governmental Industrial Hygienists (ACGIH).

Pollutant	TLV (mg/m^3)	PAER (lb/hr) = 0.11*TLV	Proposed lb/hr	Pass?
1,3-Butadiene	4.42	0.4862	0.02	Yes
MEK	589.77	64.8747	0.13	Yes
Benzene	1.59	0.1749	1.12	No
Cumene	245.78	27.0358	0.09	Yes
POC	52.42	5.7662	0.06	Yes
Epichlorohydrin	1.89	0.2079	0.10	Yes
Ethylbenzene	434.19	47.7609	0.16	Yes
Hexane	176.23	19.3853	0.32	Yes
m- and p-Xylene	434.19	47.7609	0.78	Yes
o-Xylene	434.19	47.7609	0.22	Yes
Dichloromethane	173.68	19.1048	0.17	Yes
Nickel Compounds	0.1	0.011	0.01	Yes
Phenol	19.24	2.1164	0.01	Yes
Toluene	188.40	20.724	2.43	Yes

ISCST3 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 ($\mu g/m^3$) = 1/100 of Threshold Limit Value	Modeled Concentration ($\mu g/m^3$)	Pass?
Benzene	15.9	13.92	Yes

11. CALCULATIONS:

SN	Emission Factor Source (AP-42, Testing, etc)	Emission Factor and units (lbs/ton, lbs/hr, etc)	Control Equipment Type (if any)	Control Equipment Efficiency	Comments (Emission factor controlled/uncontrolled, etc)
All PM sources	Testing		None		PM/PM_{10} emissions from all particulate sources are based on testing data from the facility which was submitted to the Department on March 2, 1995.
120, 109, 15, 09, 11, 10, 12, 13, 14, 204, 205 ,115, 323, 114, 116, 08,	Rubber Manufacturer Association (RMA) Emission Factors				HAP and VOC emissions calculated based on RMA emission factors for each of the 4 types of rubber processes conducted at the Prescott Plant (Calendering, Curing, Mixing, and Extruding) Annual emissions calculated based on annual throughput limit from permit. Hourly emissions based on maximum hourly capacity of the plant.

SN	Emission Factor Source (AP-42, Testing, etc)	Emission Factor and units (lbs/ton, lbs/hr, etc)	Control Equipment Type (if any)	Control Equipment Efficiency	Comments (Emission factor controlled/uncontrolled, etc)
315	Mass Balance		Thermal Oxidizer	95% Capture 95% destruction	Emissions based on a mass balance calculated, and the capture/destruction efficiency of the TO.
15, 500, 501	Mass Balance		None		Mass Balance assuming 100% of VOC in raw materials is emitted to atmosphere
03, 04, 20, 103, 104	Source Testing and RMA Factors		None	N/A	VOC and PM/PM_{10} emissions based on Feb. 1995 stack test data. HAP emissions based on RMA emission factors for mixing operations

12. TESTING REQUIREMENTS:

The permit requires testing of the following sources.

SN	Pollutants	Test Method	Test Interval	Justification
03, 103, 04, 104, 20	PM PM_{10} VOC	5 201A and 202 25A	One-Time	Department Guidance

13. 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)
315	Temperature	Continuous Temp. Sensor	Continuous	Y

14. RECORD KEEPING REQUIREMENTS:

The following are items (such as throughput, fuel usage, VOC content, etc.) that must be tracked and recorded.

SN	Recorded Item	Limit (as established in permit)	Frequency*	Report (Y/N)**
15	Mineral Oil Usage	30 tons/month 350 tons/year	Monthly	N
15	Mineral Oil VOC content	5% by weight	Monthly	N
500	Cold Cleaning Solvent Usage	11.0 gal/month 130 gal/year	Monthly	N
500	Cold Cleaning Solvent VOC Content	8.9 lb/gal	Monthly	N
501	Inks and Cleaners Usage	370 gal/year	Monthly	N
501	Inks and Cleaners VOC Content	6.66 lb/gal	Monthly	N
315	Primer Machine Solvent formulation limits	6.62 lb/gal VOC 6.62 lb/gal Total HAP	Monthly	N
315	Primer Usage	28.0 gal. per day	Daily	N
03,103	Total Rubber Production Limit	432 MM lb/year	Monthly	N
03, 103	Further Processed Rubber Limit	316 MM lb/year	Monthly	N
203	Rubber Production	70 MM lb/year	Monthly	N

15. OPACITY:

SN	Opacity %	Justification (NSPS limit, Dept. Guidance, etc)	Compliance Mechanism (daily observation, weekly, control equipment operation, etc)
SN-15, SN-09, SN-11, SN-10, SN-12, SN-13, SN-14, SN-115, SN-323A, SN-323B, SN-206, SN-207, SN-330, SN-313	20	Department Guidance	Observation
All other sources	5	Department Guidance	Observation

16. DELETED CONDITIONS:

Former SC	Justification for removal
	No former SC have been removed from the permit

17. VOIDED, SUPERCEDED, OR SUBSUMED PERMITS:

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

Permit #
0698-AR-6

18. CONCURRENCE BY:

The following supervisor concurs with the permitting decision.

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Phillip Murphy, P.E.
Engineering Supervisor, Air Division