

STATEMENT OF BASIS

for the issuance of Air Permit # 427-AOP-R3

1. PERMITTING AUTHORITY:

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

2. APPLICANT:

Robbins Hardwood Flooring
Hwy 15 S. at Hwy 4 Bypass
Warren, Arkansas 71671

3. PERMIT WRITER:

Paula Parker

4. SIC DESCRIPTION AND SIC CODE:

SIC Description: Hardwood Flooring Manufacturer
SIC Code: 2426
NAICS: 321113

5. SUBMITTALS: 2-03-03, 5-23-03, 6-26-03

6. REVIEWER'S NOTES:

Armstrong Wood Products, Inc. owns and operates Robbins Hardwood Flooring, Inc. - Witt Plant (formerly Robbins, Inc.) located at Highway 15 South at Highway 4 Bypass, Warren, Arkansas. The facility manufactures finished hardwood flooring. The facility is renewing their Title V air permit and including CAM requirements for SN-37 (Milling Process baghouses) and SN-41 (wood-fired boiler). SN-36, a 28.08 MMBTU/hr, wood-fired boiler, is no longer in operation and has been removed from the permit. There are no changes to the method of operation associated with the renewal.

Additionally, updated AP-42 emission factors, for both criteria and non-criteria pollutants were used in the calculation of emissions from SN-13 and SN-41. HAP emission calculations were added to the wood-fired boiler (SN-13 and SN-41) permit limits. Emission estimates for SN-13 and SN-41, with the exception of particulate matter and carbon monoxide, are now based upon updated AP-42 factors. Test results plus a 20% safety factor are now the basis for PM/PM₁₀ and CO for both boilers. An initial test for NO_x has been required in the renewal permit for both boilers. The basis for calculation is responsible for any emission increases or decreases from these sources. In addition, the woodwaste limits have been revised.

The facility is subject to recently promulgated NESHAP QQQQ, Surface Coating of Wood Building Products. The subpart requires an initial notification of applicability on September 25, 2003.

7. COMPLIANCE STATUS:

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

The facility was issued a CAO because particulate on the SN-13 boiler exceeded the emission limit. This has been corrected in the renewal permit.

8. APPLICABLE REGULATIONS:

PSD Applicability

Did the facility undergo PSD review in this permit (i.e., BACT, Modeling, et cetera?)	N		
Has this facility undergone PSD review in the past?	N	Permit#	N/A
Is this facility categorized as a major source for PSD?	N		
\$ 100 tpy and on the list of 28 (100 tpy)?	N		
\$ 250 tpy all other	N		

PSD Netting

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

Source and Pollutant Specific Regulatory Applicability

Source	Pollutant	Regulation [NSPS, NESHAP (Part 61 & Part 63), or PSD <u>only</u>]
13, 41	Opacity	<i>NSPS Subpart Dc</i>
41	PM	<i>NSPS Subpart Dc</i>

Source	Pollutant	Regulation [NSPS, NESHAP (Part 61 & Part 63), or PSD <u>only</u>]
SN-01 through SN-12	HAPs	<i>NESHAP QQQQ</i>

9. EMISSION CHANGES:

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

Pollutant	Air Permit 427-AOP-R2	Air Permit 427-AOP-R3	Change
PM	112.6	89.3	-23.3
PM ₁₀	107.3	89.3	-18.0
SO ₂	4.3	9.0	+4.7
VOC	235.0	242.9	+7.9
CO	245.3	67.4	-177.9
NO _x	56.5	175.1	+118.6
Ethyl Benzene	3.73	3.73	0
EGMPE	3.24	3.24	0
Toluene	14.58	14.58	0
Xylene	18.14	18.14	0
MEK	20.10	20.1	0
MIBK	19.90	19.90	0
Acrolein	0	1.44	+1.44
Benzene	0	1.51	+1.51

Permit #:427-AOP-R3

AFIN:06-00014

Page 4 of 10

Pollutant	Air Permit 427-AOP-R2	Air Permit 427-AOP-R3	Change
Chlorine	0	0.29	+0.29
Formaldehyde	0	1.59	+1.59
Phenol	0	0.02	+0.02
Styrene	0	0.69	+0.69
Manganese	0	0.57	+0.57

10. MODELING:

Criteria Pollutants

Pollutant	Emission Rate (lb/hr)	NAAQS Standard ($\mu\text{g}/\text{m}^3$)	Averaging Time	Highest Concentration ($\mu\text{g}/\text{m}^3$)	% of NAAQS
PM ₁₀	24.5	50	Annual	8.98	18.0%
		150	24-hour	61.45	41.0%
SO ₂	2.1	80	Annual	1.26	1.5%
		1,300	3-hour	3.79	0.3%
		365	24-hour	0.110	0.03%
NO _x	40.1	100	Annual	2.10	2.1%
VOC	159.0	0.12	1-hour (ppm)	0.0161	13.3%
CO	15.5	10,000	8-hour	21.13	0.2%
		40,000	1-hour	34.73	0.08%

11. 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 deemed PAER to be the product, in lb/hr, of 0.11 and the Threshold Limit Value (mg/m³), 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?
Ethylbenzene	434	47.74	2.21	Y
EGMPE	16.0	1.76	1.92	N
Toluene	188.0	20.68	8.64	Y
Xylene	434.0	47.74	10.75	Y
MEK	590	64.9	29.2	Y
MIBK	205	22.55	28.9	N
Acrolein	0.23	0.0253	0.34	N
Benzene	1.6	0.176	0.35	N
Chlorine	1.5	0.165	0.08	Y
Formaldehyde	1.5	0.165	0.37	N
Manganese	0.2	0.022	0.14	N
Phenol	19	2.09	0.01	Y
Styrene	85.2	9.37	0.17	Y

2nd Tier Screening (PAIL)

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 was deemed by the Department to be one one-hundredth of the Threshold Limit Value, as listed by the ACGIH.

Finishing Line emissions were modeled as a single, pseudo-point source with an above ground height of 25 ft and temperature of 70°F.

Pollutant	(PAIL, $\mu\text{g}/\text{m}^3$) = 1/100 of Threshold Limit Value	Modeled Concentration ($\mu\text{g}/\text{m}^3$)	Pass?
EGMPE	160.0	74.23	Y
MIBK	2050.0	1117.3	Y
Acrolein	2.3	0.205	Y
Benzene	16.0	0.211	Y
Formaldehyde	15.0	0.223	Y
Manganese	2.0	0.085	Y

12. 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)
1-12	MSDS	(gal/yr) x (lb/gal) x VOC content	None	N/A	Maximum coating usage 12 gal/hr Maximum cleaning usage 4.3 gal/hr
13	PM, CO factor through testing SO ₂ , VOC, NO _x : AP-42	various	cyclone with flyash reinjection	50	Emission factor for PM includes a 20% safety factor to testing data
37	AP-42, Table 10.4-1	1.0 lb/ton	Baghouse	99%	Based upon 2 tons/hr capacity

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)
38	AP-42, Table 10.4-1	1.0 lb/ton			
41	PM, CO factor through testing SO ₂ , VOC, NO _x : AP-42	various	ESP and flyash reinjection	96.4	
15-35 39,40 42	PM, VOC: Arkansas recommended emission factors	various	None	N/A	1.0 lb VOC/ 10 ⁶ bdft
43	AP-42 10.4-2	173 trucks/mon. truck/hr	Baghouse	75% equipment efficiency, 80% contained in the building	22.5 ton/truck capacity, 2.0 lb/ton

13. TESTING REQUIREMENTS:

This permit requires stack testing of the following sources.

SN(s)	Pollutant	Test Method	Test Interval	Justification For Test Requirement
13 & 41	PM,CO	1, 5,10	3 years	Verify estimates and control effectiveness of particulate control
13 & 41	NO _x	10E	Initial	Verify emission rates.

14. MONITORING OR CEMS

The permittee must monitor the following parameters with CEMs or other monitoring equipment (temperature, pressure differential, etc), frequency of recording and the need for records included in any annual, semiannual or other reports.

SN	Parameter or Pollutant to be Monitored	Method of Monitoring (CEM, Pressure Gauge, etc)	Frequency*	Report (Y/N)**
41	Spark rate and Voltage	Sparkmeter and Voltmeter	Daily	Y

* Indicate frequency of recording required for the parameter (Continuously, hourly, daily, etc.)
 ** Indicates whether the parameter needs to be included in reports.

15. RECORD KEEPING REQUIREMENTS

The following are items (such as throughput, fuel usage, VOC content of coating, etc) that must be tracked and recorded, frequency of recording and whether records are needed to be included in any annual, semiannual or other reports.

SN	Recorded Item	Limit (as established in permit)	Frequency*	Report (Y/N)**
01-12	VOC Usage	189.9 tpy	Monthly	Y
01-12	HAPs Usage	3.73 tpy Ethyl benzene 3.24 tpy EGMPE 14.58 tpy Toluene 18.14 tpy Xylene 20.1 tpy MEK 19.9 tpy MIK	Monthly	Y
13	Wood Waste Usage limits	15,600 tons/yr	Daily	Y
41	Wood Waste Usage Limits	31,300 tons/yr	Daily	Y
41	ESP Operating Parameters	9-16 sparks/minute 300-480 V	Daily	Y
15-35 39, 40 42	Hardwood Lumber purchases	76,470,000 board feet/yr	Annual	Y

SN	Recorded Item	Limit (as established in permit)	Frequency*	Report (Y/N)**
43	Trucks Loaded	2080 trucks/yr	Monthly	N

* Indicate frequency of recording required for the parameter (Continuously, hourly, daily, etc.)
 ** Indicates whether the parameter needs to be included in reports.

16. OPACITY

SN	Opacity %	Justification (NSPS limit, Dept. Guidance, etc)	Compliance Mechanism (daily observation, weekly, control equipment operation, etc)
37	5%	Departmental Guidance	Weekly Observation
38	20%	Departmental Guidance	Daily Observation
15-35 39, 40 42	10%	Departmental Guidance	Weekly Observation
13,41	20%	NSPS Subpart Dc	Daily Observation
43	10%	Departmental Guidance	Daily Method 9

17. DELETED CONDITIONS:

The previous permit contained the following deleted Specific Conditions.

Former SC	Justification for removal
3,6-9,11	MSDS maintenance for lb/gal basis sufficient to show compliance with HAP limits.
22-26	SN-36 no longer in operation at the facility.

18. VOIDED, SUPERSEDED OR SUBSUMED PERMITS

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

Permit #:427-AOP-R3
AFIN:06-00014
Page 10 of 10

Permit #
427-AOP-R2

19. CONCURRENCE BY:

The following supervisor concurs with the permitting decision:

Lyndon Poole, P.E.