STATEMENT OF BASIS

For the issuance of Draft Air Permit # 0427-AOP-R7 AFIN: 06-00014

1. PERMITTING AUTHORITY:

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

2. APPLICANT:

   Armstrong Hardwood Flooring Company - Witt Facility
   688 Hwy 278 Bypass
   Warren, Arkansas 71671

3. PERMIT WRITER:

   Jennifer Boyette

4. PROCESS DESCRIPTION AND NAICS CODE:

   NAICS Description: Finished Hardwood Flooring Manufacturer
   NAICS Code: 321918

5. SUBMITTALS:

   2/24/2009

6. REVIEWER'S NOTES:

   Armstrong Hardwood Flooring Company, formerly Robbins Hardwood Flooring, Inc., is located at 688 Highway 278 Bypass, Warren, Arkansas. The facility manufactures finished hardwood flooring. This permit action is to add a green lumber plainer to the insignificant activities list. The process description was updated and no other changes were made to the permit.

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 known compliance issues at this time.

8. PSD APPLICABILITY:

a. Did the facility undergo PSD review in this permit (i.e., BACT, Modeling, etc.)? 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, explain why this permit modification not PSD?

9. SOURCE AND POLLUTANT SPECIFIC REGULATORY APPLICABILITY:

Source	Pollutant	Regulation (NSPS, NESHAP or PSD)
13, 41	Opacity	NSPS Subpart Dc
41	PM	NSPS Subpart Dc

10. EMISSION CHANGES AND FEE CALCULATION:

See emission change and fee calculation spreadsheet in Appendix A.

11. MODELING:

Criteria Pollutants

Pollutant	Emission Rate (lb/hr)	NAAQS Standard ($\mu g/m^3$)	Averaging Time	Highest Concentration ($\mu g/m^3$)	% of NAAQS
PM_{10}	31.2	50	Annual	9.95	19.9
		150	24-Hour	48.35	32.2
CO	23.1	10,000	8-Hour	73.3	0.733
		40,000	1-Hour	91.1	0.91
NOx	40.0	100	Annual	8.8	8.8

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?
Acrolein	0.23	0.0253	0.34	N
Benzene	1.59	0.175	0.02	Y
Beryllium	0.004	0.0004	8.98E-05	Y
Cadmium	0.46	0.051	3.34E-04	Y
Chlorine	1.45	0.16	0.0954	Y
Chromium VI	0.01	0.011	1.17E-04	Y
Ethyl Benzene	434	47.74	3.02	Y
Ethylene Glycol	85.2*	9.372	3.02	Y
Formaldehyde	1.5	0.165	0.35	N
Hydrochloric Acid	2.98	0.3278	1.56	N
MIBK	205	22.55	3.0	Y
Manganese	0.2	0.022	0.14	N
Mercury	0.025	0.00275	2.85E-4	Y
Phenol	19	2.09	0.02	Y
Toluene	188.0	20.68	3.08	Y
Xylene	434.0	47.74	3.02	Y
Styrene	85.2	9.37	0.17	Y
Pb	0.05	0.0055	0.0125	N

* No TLV listed in ACGIH. Haz chem. Desk Ref. Pg 1040.

2nd 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 ($\mu g/m^3$) = 1/100 of Threshold Limit Value	Modeled Concentration ($\mu g/m^3$)	Pass?
Acrolein	2.3	0.67	Y
Pb	0.5	0.03	Y
Manganese	2.0	0.25	Y
Formaldehyde	15	0.71	Y
Hydrogen Chloride	29.8	3.07	Y

12. CALCULATIONS:

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments
1-12	MSDS Baghouse exhaust PM concentration	VOC :Mass balance 0.006 gr/scf	None Baghouse	N/A 99%	Maximum coating usage 19 gal/hr BH-4 37,600 scfm
13	PM, CO factor through testing SO_2, VOC, NO_x: AP-42	9.3 lb/hr CO 14.6 lb/hr PM 0.017 lb/MMBtu PM condensable	cyclone with flyash reinjection	50	2003 stack averages: 7.1 lb/hr CO and 1.3 safety 10.85 lb/hr PM and 1.3 fos plus PM-condensable) No reduction in particulate HAPs assumed
37&38	Baghouse exhaust PM concentration	0.006 gr/scf	Baghouses	99%	BH-1 49,250 scfm BH-2 27,000 scfm

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments
					BH-3 45,000 scfm
41	PM, CO factor through testing SO_2, VOC, NO_x: AP-42	13.8 lb/hr CO 1.9 lb/hr PM 0.017 lb/MMBtu PM condensable	ESP and flyash reinjection	96.4	2003 stack averages: 10.62 lb/hr CO and 1.3 safety 0.77 lb/hr PM and 1.3 fos plus PM-condensable No reduction in particulate HAPs assumed
15-29	PM, VOC: Arkansas recommended emission factors	various	None	N/A	1.0 lb VOC/ 10^6 bdft
43	AP-42 10.4-2	350 trucks/mon. truck/hr	Baghouse	75% equipment 80% building contained	22.5 ton/truck capacity, 2.0 lb/ton

13. TESTING REQUIREMENTS:

The permit requires testing of the following sources.

SN	Pollutants	Test Method	Test Interval	Justification
13 & 41	PM,CO	1, 5,10	5 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.)

SN	Parameter or Pollutant to be Monitored	Method (CEM, Pressure Gauge, etc.)	Frequency	Report (Y/N)
41	Secondary Current and Voltage	N/A	Daily	Y

15. 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)
01-12	VOC Usage	189.9 tpy	Monthly	Y
01-12	HAPs Usage	Plantwide Total limit	Monthly	Y
13,41	HAPs from WW combustion	Various	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	10 mADC 20 kV	Daily	Y
15-29	Hardwood Lumber purchases	76,470,000 board feet/yr	Annual	Y
43	Trucks Loaded	4200 trucks/yr	Monthly	N

16. OPACITY:

SN	Opacity	Justification for limit	Compliance Mechanism
37	5%	Departmental Guidance	Weekly Observation
38	20%	Departmental Guidance	Daily Observation
15-29	10%	Departmental Guidance	Weekly Observation
13,41	20%	NSPS Subpart Dc	Daily Observation
43	10%	Departmental Guidance	Daily Method 9

17. DELETED CONDITIONS:

Former SC	Justification for removal
33-36	SN-38 Bubbled with SN-37

18. GROUP A INSIGNIFICANT ACTIVITIES

Source Name	Group A Category	Emissions (tpy)						
		PM/ PM_{10}	SO_2	VOC	CO	NO_x	HAPs	
							Single	Total
1,000 gallon diesel tank	A-3	--	--		--	--	--	--
Chemical storage room and exhaust fan	A-13	--	--	0.016	--	--	--	--
Small (11 gallon) Solvent Distillation Unit	A-10	--	--	0.065	--	--	--	--
Drums and small containers for coating and cleanup solvent storage and handling	A-2	--	--		--	--	--	--
Diesel-Fired Fire Pump (345 hp)	A-1	0.21	0.2	0.25	0.64	2.95	--	--
150-kW Natural Gas Fired Emergency Generator	A-1	0.005	0.0003	0.25	0.17	2.2	--	--
Green Planer	A-13	0.018	--	--	--	--	--	--

19. VOIDED, SUPERSEDED, OR SUBSUMED PERMITS:

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

Permit #
0427-AOP-R6

20. CONCURRENCE BY:

The following supervisor concurs with the permitting decision.

Paula Parker, P.E.

APPENDIX A – EMISSION CHANGES AND FEE CALCULATION

Fee Calculation for Major Source

Facility Name:Armstrong Hardwood Flooring
Permit Number: 0427-AOP-R7
AFIN: 06-00014

$/ton factor	22.07	Annual Chargeable Emission (tpy)	554.92
Permit Type	AA	Permit Fee $	0

Minor Modification Fee $	500
Minimum Modification Fee $	1000
Renewal with Minor Modification $	500
If Hold Active Permit, Amt of Last Annual Air Permit Invoice $	0
Total Permit Fee Chargeable Emissions (tpy)	0

Pollutant (tpy)	Check if Chargeable Emission	Old Permit	New Permit	Change in Emissions	Permit Fee Chargeable Emissions	Annual Chargeable Emissions
PM	☑	120.9	120.9	0		
PM_{10}	☐	120.9	120.9	0		
SO_2	☑	9	9	0		
VOC	☑	242.8	242.8	0		
CO	☐	101.2	101.2	0		
NO_X	☑	175.1	175.1	0		
Pb	☑	0.03	0.03	0		
Total HAPs	☐	23.75	23.75	0		
Chlorine	☑	0.29	0.29	0		
Hydochloric Acid	☑	6.8	6.8	0		