

STATEMENT OF BASIS

For the issuance of Draft Air Permit # 0427-AOP-R11 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 Plant)
688 Hwy 278 Bypass
Warren, Arkansas 71671

3. PERMIT WRITER:

Alexander Sudibjo

4. NAICS DESCRIPTION AND CODE:

NAICS Description: Other Millwork (including Flooring)
NAICS Code: 321918

5. SUBMITTALS:

2/25/2014

6. REVIEWER'S NOTES:

With this minor modification, the facility is installing five (5) new hardwood lumber drying kilns (SN-46 through SN-50). There is no increase in the annual hardwood lumber dried limit. As such, no increase in permitted emission is requested.

7. COMPLIANCE STATUS:

As of February 25, 2014, there are no compliance issues with the facility.

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, or*
- *CO_{2e} potential to emit $\geq 100,000$ tpy and ≥ 100 tpy/ ≥ 250 tpy of combined GHGs?*

If yes, explain why this permit modification is not PSD.

9. GHG STATUS:

Indicate one:

- Facility is classified as a major source for GHG and the permit includes this designation
- Facility does not have the physical potential to be a major GHG source
- Facility has restrictions on GHG or throughput rates that limit facility to a minor GHG source. Describe these restrictions: _____

10. SOURCE AND POLLUTANT SPECIFIC REGULATORY APPLICABILITY:

Source	Pollutant	Regulation (NSPS, NESHAP or PSD)
41	PM	NSPS Subpart Dc
13 and 41	-	NESHAP Subpart JJJJJ
44 and 45	-	NESHAP Subpart ZZZZ

11. EMISSION CHANGES AND FEE CALCULATION:

See emission change and fee calculation spreadsheet in Appendix A.

12. NAAQS EVALUATIONS AND NON-CRITERIA POLLUTANTS:

a) NAAQS:

Pursuant to Act 1302 of the Regular Session of the 89th General Assembly of the State of Arkansas, no dispersion modeling was performed by ADEQ because it was not voluntarily proposed and agreed to by the facility. No other information was submitted by the applicant. Criteria pollutants were not evaluated for impacts on the NAAQS.

b) Non-Criteria Pollutants:

Non-criteria evaluation was not performed for this permit modification. Modeling information was taken from permit #0429-AOP-R10

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/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?
Acrolein	0.23	0.0253	0.36	N
Benzene	1.59	0.175	0.37	N
Beryllium	0.004	0.0004	8.98E-05	Y
Cadmium	0.46	0.051	3.34E-04	Y
Chlorine	1.45	0.16	0.08	Y
Chromium VI	0.01	0.011	2.85E-04	Y
Ethyl Benzene	434	47.74	3.03	Y
Ethylene Glycol	85.2*	9.372	3.00	Y
Formaldehyde	1.5	0.165	0.50	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	0.03	Y
Toluene	188.0	20.68	3.10	Y
Xylene	434.0	47.74	3.04	Y
Styrene	85.2	9.37	0.18	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 ($\mu\text{g}/\text{m}^3$) = 1/100 of Threshold Limit Value	Modeled Concentration ($\mu\text{g}/\text{m}^3$)*	Pass?
Acrolein	2.3	0.384	Y
Benzene	15.9	0.391	Y
Pb	0.5	0.03	Y
Manganese	2.0	0.25	Y
Formaldehyde	15	0.417	Y
Hydrogen Chloride	29.8	1.75	Y

* Emissions from SN-44 and SN-45 are not modeled because they are limited-use engines.

13. 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	VOC: Mass	None	N/A	Max coat usage 19 gal/hr.
13	PM, CO factor through testing SO ₂ , VOC, NO _x : AP-42	0.7056 lb/MMBtu PM 0.2856 lb/MMBtu CO 0.017 lb/MMBtu PM condensable	cyclone with flyash reinjection	50	2011 stack averages with 20% safety factor. 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 BH-3 45,000 scfm
41	PM, CO factor through testing SO ₂ , VOC, NO _x : AP-42	0.0022 lb/MMBtu PM 0.21 lb/MMBtu CO 0.017 lb/MMBtu PM condensable	ESP and flyash reinjection	96.4	2011 stack averages with 20% safety factor. No reduction in particulate HAPs assumed
14-29 & 46-50	PM, VOC: Arkansas recommended emission factors	various	None	N/A	1.0 lb VOC/ 10 ⁶ bdf
43	AP-42 10.4-2	350 trucks/month	Baghouse	75%	22.5 ton/truck

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments
		2 truck/hr		equipment 80% building contained	capacity, 2.0 lb/ton
44	AP-42 3.2 and 3.3	<u>Units in lb/MMBtu</u> PM/PM ₁₀ : 0.31 SO ₂ : 0.29 VOC: 0.36 CO: 0.95 NO _x : 4.41	-	-	2.67 MMBtu/hr 500 hours per year operation
45	AP-42 3.2	<u>Units in lb/MMBtu</u> PM/PM ₁₀ : 0.01 SO ₂ : 5.88e-4 VOC: 0.118 CO: 0.317 NO _x : 4.08	-	-	2.10 MMBtu/hr 500 hours per year operation

14. 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.
13 & 41	Energy assessment	-	One time	§63.11201

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)
41	Secondary Current and Voltage	N/A	Daily	Y

SN	Parameter or Pollutant to be Monitored	Method (CEM, Pressure Gauge, etc.)	Frequency	Report (Y/N)
44 and 45	Hours of Operation	Non-resettable hour meter	As necessary	N

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)
01-12	VOC Usage	189.9 tpy	Monthly	Y
01-12	HAPs Usage	Plantwide Total limit	Monthly	Y
01-12	Hourly usage of VOC/HAP-containing materials	19 gallons total for all VOC/HAP-containing material per hour	Daily	N
01-12	HAP content for coating, solvent, and adhesive material	<u>Units in lb/gal</u> Ethyl benzene = 0.16 Ethylene Glycol Mono Propyl Ether = 0.16 Toluene = 0.16 Xylene = 0.16 Methyl Isobutyl Ketone = 0.16	As necessary	N
01-12	Ethoxyethoxyethylacrylate content for primers	0.5 lb/gal	As necessary	N
13	Wood Waste Usage limits	15,600 tons/yr	Monthly	Y
41	Wood Waste Usage Limits	31,300 tons/yr	Monthly	Y
41	ESP Operating Parameters	10 mADC 20 kV	Daily	Y
13 & 41	Records of biennial tune-ups	-	No more than 25 months after the previous tune-up	N
14-29 & 46-50	Hardwood Lumber Dried	76,470,000 board feet/yr	Monthly	Y
43	Trucks Loaded	350 trucks/month	Monthly	N
44 & 45	Hours of Operation	500 hours per 12-month rolling period for each source	As necessary	N

SN	Recorded Item	Permit Limit	Frequency	Report (Y/N)
44	Records of Maintenance	See Specific Conditions #50 and #51	As necessary	N

17. OPACITY:

SN	Opacity	Justification for limit	Compliance Mechanism
37	5%	Departmental Guidance	Daily Observation
38	5%	Departmental Guidance	Daily Observation
14-29 & 46-50	10%	Departmental Guidance	Weekly Observation
13,41	20%	NSPS Subpart Dc	Daily Observation
43	10%	Departmental Guidance	Observation when Loading
44 & 45	20%	Departmental Guidance	Inspector Observation

18. DELETED CONDITIONS:

Former SC	Justification for removal
19	HAP emissions are based on maximum capacity. This condition is unnecessary to show compliance with HAP emissions.

19. 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	--	--		--	--	--	--

Source Name	Group A Category	Emissions (tpy)						
		PM/ PM ₁₀	SO ₂	VOC	CO	NO _x	HAPs	
							Single	Total
Green Planer	A-13	0.014	--	--	--	--	--	--

20. VOIDED, SUPERSEDED, OR SUBSUMED PERMITS:

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

Permit #
0427-AOP-R10

APPENDIX A – EMISSION CHANGES AND FEE CALCULATION

Fee Calculation for Major Source

Revised 11-06-13

Facility Name: Armstrong Hardwood Flooring--Witt
 Facility
 Permit Number: 0427-AOP-R11
 AFIN: 06-00014

\$/ton factor	23.42	Annual Chargeable Emissions (tpy)	575.83
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)	0
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 condensible 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		135.9	135.9	0		
PM ₁₀		135.9	135.9	0	0	135.9
SO ₂		9.3	9.3	0	0	9.3
VOC		243.2	243.2	0	0	243.2
CO		102.1	102.1	0		
NO _x		180.3	180.3	0	0	180.3
Lead	<input type="checkbox"/>	0.03	0.03	0		
Total HAPs	<input type="checkbox"/>	23.75	23.75	0		

