

STATEMENT OF BASIS

for the issuance of Draft Air Permit # 559-AOP-R2

1. PERMITTING AUTHORITY:

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

2. APPLICANT:

Century Flooring Company
State Highway 9 Spur
Melbourne, Arkansas 72556

3. PERMIT WRITER:

Melisha Griffin

4. PROCESS DESCRIPTION AND SIC CODE:

SIC Description: prefinished hardwood flooring
SIC Code: 2426

5. SUBMITTALS: June 15, 1999

6. REVIEWER'S NOTES:

Century Flooring Company (CSN#33-0013) owns and operates a hardwood flooring mill (SIC 2426) physically located in portions of the South One-Half of the Southwest 1/4 of the Southeast 1/4 of Section 2, Township 16 North, Range 9 West in Melbourne (Izard County), Arkansas. As the result of a Consent Administrative Order (COA), the facility is proposing the following to the current permit (559-AOP-R1):

- (1) A request for a 20% opacity limit for the Deltak (SN-05) and Keeler (SN-06) Boilers, as well as all other applicable regulations and air emission sources.
- (2) Recalculate Prefinish Line Curing Oven (SN-11) emissions due to recently revised EPA AP-42 factors for natural gas combustion. The CO emissions will increase from 0.2 to 0.5 ton per year.

7. COMPLIANCE STATUS:

This facility is currently under a CAO. As a result of the CAO, the facility was required to submit this permit application and address other issues mentioned in the CAO.

8. APPLICABLE REGULATIONS:

A. Applicability

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

B. PSD Netting

Was netting performed to avoid PSD review in this permit? (Y/N) N
 If so, indicate increases and decreases used in netting for PSD purposes only.

NETTING TABLE							
Emission Source	Pollutant Emission Rate (TPY)						
	PM	PM ₁₀	SO ₂	VOC	CO	NO _x	Pb
Totals							
Significant Emission Rate	25	15	40	40	100	40	0.6
Subject to PSD?							

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6. EMISSION CHANGES:

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

Plantwide Permitted Emissions (ton/yr)			
Pollutant	Air Permit 559-AOP-R1	Air Permit 559-AOP-R2	Change
PM/PM ₁₀	191.1	191.1	0.0
SO ₂	29.4	29.4	0.0
VOC	162.8	162.8	0.0
CO	220.0	220.3	0.3
NO _x	91.9	91.9	0.0
Diethylene Glycol Monomethyl Ether (HAP)	12.20	12.20	0.0
Ethyl Benzene (HAP)	2.00	2.00	0.0
Formaldehyde (HAP)	0.10	0.10	0.0
Methanol (HAP)	2.20	2.20	0.0
Methyl Isobutyl Ketone (HAP)	40.00	40.00	0.0
Propylene Glycol Monoethyl Ether (HAP)	36.20	36.20	0.0
Propylene Glycol Monoethyl Ether Acetate (HAP)	17.00	17.00	0.0
Toluene (HAP)	9.70	9.70	0.0
Xylene (HAP)	8.00	8.00	0.0

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7. CALCULATIONS:

At source locations for which no comments appear below, the emission calculations received the reviewer's concurrence as submitted by the facility in the permit application.

SN	Basis for emission calculation of final permit limits.		Comment.
	lb/hr	ton/yr	
01	Baghouse vendor data	Baghouse vendor data	
02	Baghouse vendor data	Baghouse vendor data	
03	Baghouse vendor data	Baghouse vendor data	
04	Cyclone vendor data	Cyclone vendor data	
05	AP42 Tables 1.6-1, 1.6-2	AP42 Tables 1.6-1, 1.6-2	
06	AP42 Tables 1.6-1, 1.6-2	AP42 Tables 1.6-1, 1.6-2	
07	Maximum gal/hr usage.	Annual usage records.	No HAPs present.
08	Maximum gal/hr usage.	Annual usage records.	
09	Maximum gal/hr usage.	Annual usage records.	No HAPs present.
10	Maximum gal/hr usage.	Annual usage records.	No HAPs present.
11	Design heat capacity.	Design heat capacity.	
12	ADPCE 1.0 lb/MBF factor.	ADPCE 1.0 lb/MBF factor.	Hardwood Kiln.
13	ADPCE 1.0 lb/MBF factor.	ADPCE 1.0 lb/MBF factor.	Hardwood Kiln.
14	ADPCE 1.0 lb/MBF factor.	ADPCE 1.0 lb/MBF factor.	Hardwood Kiln.
15	ADPCE 1.0 lb/MBF factor.	ADPCE 1.0 lb/MBF factor.	Hardwood Kiln.
16	ADPCE 1.0 lb/MBF factor.	ADPCE 1.0 lb/MBF factor.	Hardwood Kiln.
17	ADPCE 1.0 lb/MBF factor.	ADPCE 1.0 lb/MBF factor.	Hardwood Kiln.

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SN	Basis for emission calculation of final permit limits.		Comment.
	lb/hr	ton/yr	
18	Tanks 3.0 Program	Tanks 3.0 Program	
19	Tanks 3.0 Program	Tanks 3.0 Program	
20	AP42 Table 10.4-2	AP42 Table 10.4-2	
21	Maximum gal/hr usage.	Annual usage records.	
22	ADPCE 1.0 lb/MBF factor.	ADPCE 1.0 lb/MBF factor.	Hardwood Kiln.
23	ADPCE 1.0 lb/MBF factor.	ADPCE 1.0 lb/MBF factor.	Hardwood Kiln.

8. MODELING:

A. Criteria Pollutants

An initial screening of emissions was performed for PM₁₀ and CO as a part of the review of Permit #0559-AOP-R0 since these pollutants exceeded the Title V emission level of 100 tons per year. Since no change in these emissions occur, the modeling is still valid.

SN(s)	Pollutant	NAAQS (mg/m ³)	Modeled Concentration (mg/m ³)	Pass?
01-06, 11	PM ₁₀ (24 hour)	0.150	0.0221	YES
	PM ₁₀ (Annual)	0.050	0.0019	YES
05, 06, 11, 19	CO (1 hour)	40.0	0.0909	YES
	CO (8 hour)	10.0	0.0458	YES

B. Non-Criteria Pollutants

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No change in HAP emissions take place from this modification. As a result, the modeling from Permit #559-AOP-R0 (presented below) is still valid.

1st Tier Screening (PAER).

Estimated hourly emissions from the following sources were compared to the Presumptively Acceptable Emission Rate (PAER) for each compound. The PAER was deemed by the Department 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).

SN(s)	Pollutant	TLV (mg/m^3)	PAER (lb/hr) = 0.11*TLV	Proposed lb/hr	Pass?
21	Diethylene Glycol Monomethyl Ether	*	*	2.80	*
08	Ethyl Benzene	434	47.74	1.70	YES
08	Formaldehyde	0.37	0.0407	0.10	NO
08, 21	Methanol	262	28.82	1.74	YES
08	Methyl Isobutyl Ketone	205	22.55	16.40	YES
08	Propylene Glycol Monomethyl Ether	369	40.59	30.00	YES
08	Propylene Glycol Monoethyl Ether Acetate	*	*	6.60	*
08	Toluene	188	20.68	8.10	YES
08	Xylene	434	47.74	6.60	YES

* - No TLV available for this compound.

2nd Tier Screening (PAIL).

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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.

SN(s)	Pollutant	(PAIL, $\mu\text{g}/\text{m}^3$) = 1/100 of Threshold Limit Value	Modeled Concentration ($\mu\text{g}/\text{m}^3$)	Pass?
08	Formaldehyde	3.70	0.48	YES

TESTING AND OPERATIONAL PARAMETERS:

This permit requires the following operational parameters:

SN(s)	Sampled Material	Parameter	Justification
21	Dip Vat Chemicals	4500 gal/yr usage	To limit VOC and HAP emissions from this source.
12-17	Lumber	40 MMBF/yr	To limit VOC emissions from the lumber kilns.
05 - 06	Wood Fuel, Steam	26,040,000 lbs/month steam 7,440 tons/yr fuel	To limit emissions from the boilers. Rates are per boiler, not total for both.
18	Diesel	205000 gal/yr	To limit VOC emissions from this source.
19	Hours of Operation	7,200 hours/yr	To limit emissions from the diesel generator.

10. RECORD KEEPING, REPORTING:

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The following specific conditions were included in Air Permit 559-AOP-R0 to require record keeping and reporting of throughput, emissions, or operational parameters:

SN	Recorded Item
21	Dip vat chemical usage.
12-17, 22, 23	Board feet of lumber dried.
01 - 03	Opacity.
07 thru 11	VOC ton/year
04 - 06 , 20	Opacity
05 - 06	Lumber received, finished product shipped, and excess wood waste received or sold.
05 - 06	Boiler steam rate.
18	Diesel usage.
19	Opacity.
19	Hours of Operation.

11. OPACITY:

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The following opacity limits are required by this permit.

SN	Opacity	Justification
01 - 03	5%	Baghouses are allowed 5% opacity in almost all applications.
11	10%	Natural gas fired curing oven.
04	10%	Opacity limit in previous permit. No change requested by facility.
05 & 06	20%	Required by CAO
20	20%	Uncontrolled load-out source.
19	20%	Diesel generator.

13. DELETED CONDITIONS:

No Specific Conditions were deleted from the previous permit.

14. REFERENCES:

- a. Air Permit Application, received September 25, 1996.
- b. Regulation No. 18, as amended July 1, 1997.
- c. Regulation No. 19, as amended July 1, 1997.
- d. USEPA AP-42 Compilation of Emission Factors, 1/95

15. CONCURRENCE BY:

The following supervisor concurs with the permitting decision:

Thomas Rheaume, P.E.