

## STATEMENT OF BASIS

*for the issuance of Draft Air Permit # 1140-AOP-R0*

**1. PERMITTING AUTHORITY:**

Arkansas Department of Pollution Control and Ecology  
8001 National Drive  
Post Office Box 8913  
Little Rock, Arkansas 72219-8913

**2. APPLICANT:**

Anthony Timberlands  
930 Cabe Street  
Malvern, Arkansas 72104

**3. PERMIT WRITER:**

John Bailey

**4. PROCESS DESCRIPTION AND SIC CODE:**

SIC Description: Pine Sawmill  
SIC Code: 2421

**5. SUBMITTALS:** November 11, 1997

**6. REVIEWER'S NOTES:**

The facility is modifying the permit to include two lumber drying kilns (SN-11 and SN-12); bark, mulch, and sawdust loadouts (SN-13), chip bin loadout (SN-14), a two compartment fuel storage tank (SN-15), and a lumber dip vat (SN-17), which were not previously permitted. Hazardous air pollutants, specifically from the use of the chemical dip vat (SN-17), are being speciated and quantified for the first time with this air permit. The following sources were removed from service in mid-1997: Planer Shavings (SN-04), Wood Shavings Unloading (SN-05), Pre-Grinder Wood Flour Mill (SN-06), Wood Flour and Shavings (SN-07), and Wood Flour and Shavings Truck Loading (SN-08). New sources that are being added to the facility are a Planer Mill Cyclone (SN-09) and a Planer Mill Peerless Bin (SN-10). This will be the first permit for Anthony Timber under *Regulations of the Arkansas Operating Air Permit Program* (Regulation 26). In the dip tanks one of the hazardous air pollutants listed, diethylene glycol monomethyl ether, does not have a TLV. Therefore, the highest first high diethylene glycol monomethyl ether concentration projected by the ISCST3 Model was compared against various surrogate glycol ethers (ethylene glycol monomethyl ether, ethylene glycol monomethyl ether acetate, ethylene glycol monoethyl ether, ethylene glycol monoethyl ether acetate, ethylene glycol monobutyl

ether, propylene glycol monomethyl ether, and dipropylene glycol methyl ether) which have TLVs. The highest first high modeled concentration of 80.74 micrograms per cubic meters for diethylene glycol monomethyl ether is less than the 1/100th TLV for the surrogate glycol ethers. Therefore, the release of diethylene glycol monomethyl ether emissions from lumber dipping activities at the facility should not have an adverse impact on ambient air quality.

**7. APPLICABLE REGULATIONS:**

NSPS (Y/N)  N  If yes, subpart \_\_\_\_\_  
 NESHAP (Y/N)  N  If yes, subpart \_\_\_\_\_  
 PSD applicability (Y/N)  N   
 Is facility on 28 list (100 tpy)? (Y/N)  N   
 Was netting performed to avoid PSD review (Y/N)  N   
 Subject to CAM requirements (Y/N)  N   
 Other applicable regulations

**8. EMISSION CHANGES:**

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

<b>Plantwide Permitted Emissions (ton/yr)</b>			
<b>Pollutant</b>	<b>Air Permit 1140-AR-1</b>	<b>Air Permit 1140-AOP-R0</b>	<b>Change</b>
PM/PM <sub>10</sub>	71.18	48.9	-22.28
SO <sub>2</sub>	0.12	0.2	0.08
VOC	1.18	162.8	161.62
CO	7.08	7.2	0.12
NO <sub>x</sub>	19.78	28.8	9.02
Methanol	0	0.05	0.05
Diethylene glycol monomethyl ether	0	2.7	2.7
Cumene	0	0.05	0.05
Xylene	0	0.05	0.05

**9. MODELING:**

**A. Criteria Pollutants**

VOC's are less than 500 tpy  
 All other Criteria Pollutant's are less than 100 tpy

**B. 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 PAER was deemed by the Department to be the product, in lb/hr, of 0.11 and the Threshold Limit Value (mg/m<sup>3</sup>), as listed by the American Conference of Governmental Industrial Hygienists (ACGIH).

<b>Pollutant</b>	<b>TLV (mg/m<sup>3</sup>)</b>	<b>PAER (lb/hr) = 0.11*TLV</b>	<b>Proposed lb/hr</b>	<b>Pass?</b>
Methanol	262	28.82	0.05	Yes
Cumene	246	27.06	0.05	Yes
Xylene	434	47.74	0.05	Yes

**10. CALCULATIONS:**

<b>SN</b>	<b>Emission Factor Source (AP-42, Testing, etc)</b>	<b>Emission Factor and units (lbs/ton, lbs/hr, etc)</b>	<b>Control Equipment Type (if any)</b>	<b>Control Equipment Efficiency</b>	<b>Comments (Emission factor controlled/uncontrolled, etc)</b>
01 and 14			Cyclone	80%	ATI officials have indicated that a maximum of 122,000 tpy of wood chips will be conveyed through this cyclone.

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)
02 and 03	AP-42 Chapter 1 Section 1.4	PM 13.7 SO2 0.6 NOx 140 CO 35 VOC 5.8 lb/MMscf	None		
09 and 10			Cyclone	80	Throughput (wood shavings) 35,000 tpy
11, 12, and 16	PC&E soft wood factor	3.5 lb/1000 BF			
13			Cyclone	80	Throughput (wood shavings and bark mulch) 64,200 tpy
15	TANKS3				Emissions are based upon TANKS3 program to get the lb/hr.
17	PC&E	2000hr/yr			The tpy usage is divided by 2000 hrs/yr.

**11. TESTING REQUIREMENTS:**

No testing was required.

**12. MONITORING OR CEMS**

No monitoring was required.

**13. 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.

<b>SN</b>	<b>Recorded Item</b>	<b>Limit (as established in permit)</b>	<b>Frequency *</b>	<b>Report (Y/N)**</b>
Plantwide	Lumber production	90 MM board feet	annually	Y
15	Diesel fuel and gasoline usage	diesel fuel 150,000 gasoline 50,000	annually	Y
17	VOC (Dip Chemicals)	1,000 gallons	annually	Y

\* Indicate frequency of recording required for the item (Continuously, hourly, daily, etc.)

\*\* Indicates whether the item needs to be included in reports

**14. OPACITY**

<b>SN</b>	<b>Opacity %</b>	<b>Justification (NSPS limit, Dept. Guidance, etc)</b>	<b>Compliance Mechanism (daily observation, weekly control equipment operation, etc)</b>
01, 9, 10, 13, and 14	20	18.5 and Part 52	daily observation
02 and 03	5	18.5 and Part 52	weekly

**16. CONCURRENCE BY:**

The following supervisor concurs with the permitting decision:

\_\_\_\_\_  
*Gordon Burr, P.E.*