

STATEMENT OF BASIS

For the issuance of Draft Air Permit # 1140-AOP-R4 AFIN: 30-00084

1. PERMITTING AUTHORITY:

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

2. APPLICANT:

Anthony Timberlands, Incorporated
930 Cabe Street
Malvern, Arkansas 72104

3. PERMIT WRITER:

Shawn Hutchings

4. PROCESS DESCRIPTION AND NAICS CODE:

NAICS Description: Sawmills
NAICS Code: 321113

5. SUBMITTALS:

1/27/2009

6. REVIEWER'S NOTES:

Anthony Timberlands, Inc. currently operates a pine sawmill located at 930 Cabe Street in Malvern, Hot Spring County, Arkansas. This permit is the renewal Title V permit for the facility. Changes in this permit include removing SN-17 the Chemical Dip Vat, and adding Roadway emissions, Logo Painting, and an Diesel Pump as SN-20, 21, and 22. Permitted emissions of PM and VOC lowered 25.7 tpy and 2.5 tpy respectively. HCl emissions increased 5.6 tpy.

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 enforcement 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?

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

9. SOURCE AND POLLUTANT SPECIFIC REGULATORY APPLICABILITY:

Source	Pollutant	Regulation (NSPS, NESHAP or PSD)
18 and 19	PM	CAM
22	HAPs	MACT ZZZZ

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 (µg/m ³)	Averaging Time	Highest Concentration (µg/m ³)	% of NAAQS
PM ₁₀	25.8	150	24-Hour	90.0	60%
CO	44.7	10,000	8-Hour	52	>1%
		40,000	1-Hour	84	>1%
Pb	0.004	0.15	Rolling 3-month Period over 3 years (not to be exceeded in any 3 month period)	0.0004 1-month	>1%

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/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	0.2	0.022	0.4	N
Anthracene	0.2	0.022	0.00002	Y
Arsenic	0.01	0.0011	0.00162	N
Benzene	1.6	0.176	1.8001	N
Cadmium	0.01	0.0011	0.00046	Y
Chromium	0.005	0.00055	0.00048	Y
Ethylbenzene	434.2	47.76	0.9	Y
Fluorene	0.2	0.022	0.00042	Y
Formaldehyde	0.37	0.04	1.034	N
Hexane	176.2	19.4	1.1	Y
Hydrogen Chloride	2.98	0.33	1.4	N
Manganese	0.1	0.011	0.12002	N
Methanol	262	28.8	8.19	Y
Mercury	0.025	0.00275	0.00042	Y
MTBE	180.34	5.76	4.2	Y
Phenathrene	0.2	0.022	0.00002	Y
Phenol	19.25	2.12	0.004	Y
Pyrene	0.2	0.022	0.00042	Y
Styrene	85	9.35	0.14	Y
Toluene	75.4	8.29	6.9	Y
Xylene	434.19	47.7	4.2	Y

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.

For Benzene the permittee submitted modeling based on the REL established by the California State Office of Environmental Health Hazard Assessment, which has acute (6hr) and chronic (1 yr) standards.

Pollutant	PAIL (µg/m ³) = 1/100 of Threshold Limit Value	Modeled Concentration (µg/m ³)	Pass?
Acrolein	2	0.16	Y
Arsenic	0.1	0.0007	Y

Pollutant	PAIL ($\mu\text{g}/\text{m}^3$) = 1/100 of Threshold Limit Value	Modeled Concentration ($\mu\text{g}/\text{m}^3$)	Pass?
Benzene	1,300 (6-hr)	76.6	Y
	60 (1-yr)	2.2	Y
Formaldehyde	15	2.4	Y
Hydrogen Chloride	29.8	0.6	Y
Manganese	1	0.05	Y

12. CALCULATIONS:

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments
01, 09	Total throughput reduced by control efficiency	Dependant upon source	Cyclone	80%	
02 and 03	AP-42 Tables 1.4-1, 2, and 3	Varied	None		
10, 13, 14	ADEQ memo	0.5 lb/ton	Cyclone	Not used	
11, 12, 16	NCASI factors for drying kilns	Varied see application	None		
15	Tanks program	Equation	none		
18 and 19	AP-42 wood residue combustion in boilers Table 1.6-1 through 16-4	Varied	Multiclone		
20	AP-42 for roadways	Equation	None		
21	Painting usages	None			
22	AP-42 Diesel combustion engines	Varied	None		

13. TESTING REQUIREMENTS:

The permit requires testing of the following sources.

SN	Pollutants	Test Method	Test Interval	Justification
18 and 19	NO _x CO	10 7E	One time	To verify compliance with

SN	Pollutants	Test Method	Test Interval	Justification
				limits on a wood gasification boiler.

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)
none				

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)
15	Fuel usage	150,000 gallons diesel and 50,000 gallons gasoline per 12 months	Monthly	Y
18 and 19	Wood waste fuel per year	33,950 tons per year	Monthly	Y
21	Logo Painting	0.4 tpy	Monthly	Y
22	Hours	500 total operation 50 non-emergency 100 maintenance and readiness	Monthly	Y
22	ZZZZ required records	None records of maintenance, etc.	Monthly	Y

16. OPACITY:

SN	Opacity	Justification for limit	Compliance Mechanism
01, 09, 10, 13, 14, 18, 19	20%	Department Guidance	Daily readings
02, 03	5%	Department Guidance	Natural Gas

SN	Opacity	Justification for limit	Compliance Mechanism
			Combustion Only
22	20%	Department Guidance	Comply with ZZZZ maintenance requirements

17. DELETED CONDITIONS:

Former SC	Justification for removal
No conditions were deleted	

18. GROUP A INSIGNIFICANT ACTIVITIES

Source Name	Group A Category	Emissions (tpy)							
		PM/PM ₁₀	SO ₂	VOC	CO	NO _x	HAPs		
							Single	Total	
Diesel Tank for Pump	A-3			0.1 lb/yr					

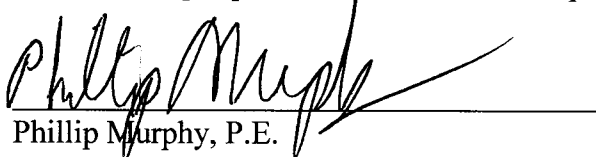
19. VOIDED, SUPERSEDED, OR SUBSUMED PERMITS:

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

Permit #
1140-AOP-R3

20. CONCURRENCE BY:

The following supervisor concurs with the permitting decision.


 Phillip Murphy, P.E.

APPENDIX A – EMISSION CHANGES AND FEE CALCULATION

Fee Calculation for Major Source

Revised 03-01-10

Anthony Timberlands, Incorporated
 Permit #: 1140-AOP-R4
 AFIN: 30-00084

\$/ton factor	22.07	Annual Chargeable Emissions (tpy)	463.60126
Permit Type	Modification	Permit Fee \$	1000

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)	-22.09874
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 condensable 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	<input checked="" type="checkbox"/>	172.3	146.6	-25.7	-25.7	146.6
PM ₁₀	<input type="checkbox"/>	117	100.5	-16.5		
SO ₂	<input checked="" type="checkbox"/>	7.6	7.7	0.1	0.1	7.7
VOC	<input checked="" type="checkbox"/>	220.2	217.5	-2.7	-2.7	217.5
CO	<input type="checkbox"/>	193.4	193.6	0.2		
NO _x	<input checked="" type="checkbox"/>	85.6	86.2	0.6	0.6	86.2
Lead	<input type="checkbox"/>	0.01	0.01612	0.00612		
Acrolein	<input type="checkbox"/>	0.59	1.2	0.61		
Anthracene	<input type="checkbox"/>	0	0.00002	0.00002		
Arsenic	<input type="checkbox"/>	0.01	0.00806	-0.00194		
Benzene	<input type="checkbox"/>	0.62	1.5006	0.8806		
Cadmium	<input type="checkbox"/>	0	0.0018	0.0018		
Chromium	<input type="checkbox"/>	0.01	0.0016	-0.0084		
Ethylbenzene	<input type="checkbox"/>	0	0.1	0.1		
Fluorene	<input type="checkbox"/>	0	0.001024	0.001024		
Formaldehyde	<input type="checkbox"/>	2.78	2.3762	-0.4038		
Hexane	<input type="checkbox"/>	0	0.5	0.5		
Hydrogen Chloride	<input checked="" type="checkbox"/>	0	5.6	5.6	5.6	5.6

Pollutant (tpy)	Check if Chargeable Emission	Old Permit	New Permit	Change in Emissions	Permit Fee Chargeable Emissions	Annual Chargeable Emissions
Manganese	<input type="checkbox"/>	0.24	0.60008	0.36008		
Methanol	<input type="checkbox"/>	12.7	12.6	-0.1		
Mercury	<input checked="" type="checkbox"/>	0	0.00126	0.00126	0.00126	0.00126
MTBE	<input type="checkbox"/>	0	0.2	0.2		
Phenathrene	<input type="checkbox"/>	0	0.00002	0.00002		
Phenol	<input type="checkbox"/>	0.01	0.016	0.006		
Pyrene	<input type="checkbox"/>	0	0.001221	0.001221		
Styrene	<input type="checkbox"/>	0.28	0.6	0.32		
Toluene	<input type="checkbox"/>	0	0.60086	0.60086		
Xylene	<input type="checkbox"/>	0	0.20004	0.20004		
cumene	<input type="checkbox"/>	0.4	0	-0.4		
DGME	<input type="checkbox"/>	3.7	0	-3.7		
POM	<input type="checkbox"/>	0.01	0	-0.01		