

STATEMENT OF BASIS

For the issuance of Draft Air Permit # 1140-AOP-R10 AFIN: 30-00084

1. PERMITTING AUTHORITY:

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

2. APPLICANT:

Anthony Timberlands, Inc.
930 Cabe Street
Malvern, Arkansas 72104

3. PERMIT WRITER:

Jimmy Do

4. NAICS DESCRIPTION AND CODE:

NAICS Description: Sawmills
NAICS Code: 321113

5. ALL SUBMITTALS:

The following is a list of ALL permit applications included in this permit revision.

Date of Application	Type of Application (New, Renewal, Modification, Deminimis/Minor Mod, or Administrative Amendment)	Short Description of Any Changes That Would Be Considered New or Modified Emissions
1/31/2025	Renewal	Add the Log Debarking operations as SN-26 and to update SN-15 emissions.

6. REVIEWER'S NOTES:

Anthony Timberlands, Inc. (ATI) currently operates a pine sawmill located at 930 Cabe Street in Malvern, Arkansas. This renewal will add the Log Debarking operations as SN-26, revise Boiler No.1 and No.2 (SN-02 and SN-03) emissions, and update SN-15 emissions to be based on the new EPA TANKS 5.0 program. A condition was added to SN-20 to prevent any violation of Arkansas Water and Air Pollution Control Act of the federal National Pollutant Discharge Elimination System (NPDES). Permitted emissions increased for PM by 26.7 tpy and PM₁₀ by 10.1 tpy, Permitted emissions decreased for VOC by 0.5 tpy and NO_x by 1 tpy.

7. COMPLIANCE STATUS:

The following summarizes the current compliance of the facility including active/pending enforcement actions and recent compliance activities and issues.

The last inspection was conducted March 29, 2023. SN-24 was found to have exceeding the permitted opacity limit (6-minute average observed: 53.9%). This is in violation of Specific Condition 83 of the permit which states the opacity limit is 20%. Smoke was observed exiting the base of SN-24; and wood waste was observed burning uncontrolled outside of the firebox on the ground at SN-24. This was in violation of Plantwide Condition 5. Wood waste (saw dust) capable of becoming airborne was observed to be accumulated on elevated surfaces. The accumulation of wood waste below the cyclone and ductwork/piping indicates that the facility's equipment and control apparatuses are not being properly operated or maintained, violating Plantwide Condition 5.

A review of ECHO revealed no additional CAA violations in the last twelve quarters.

8. PSD/GHG APPLICABILITY:

a) Did the facility undergo PSD review in this permit (i.e., BACT, Modeling, etc.)? N
If yes, were GHG emission increases significant? N/A

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 for 8(b), 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	40 C.F.R. § 64, C.A.M.
18 and 19	HAPs	40 C.F.R. § 63, Subpart JJJJJ
25	CO, NO _x , PM	40 C.F.R. § 63, Subpart ZZZZ 40 C.F.R. § 60, Subpart IIII
24	Opacity limits only.	40 C.F.R. § 60, Subpart CCCC
24	CO, NO _x , PM	40 C.F.R. § 60, Subpart IIII
15	HAPs	40 C.F.R. § 63, Subpart CCCCC

10. UNCONSTRUCTED SOURCES:

Unconstructed Source	Permit Approval Date	Extension Requested Date	Extension Approval Date	If Greater than 18 Months without Approval, List Reason for Continued Inclusion in Permit
N/A				

11. PERMIT SHIELD – TITLE V PERMITS ONLY:

Did the facility request a permit shield in this application? N

(Note - permit shields are not allowed to be added, but existing ones can remain, for minor modification applications or any Regulation 18 requirement.)

If yes, are applicable requirements included and specifically identified in the permit? N/A
If not, explain why.

For any requested inapplicable regulation in the permit shield, explain the reason why it is not applicable in the table below.

Source	Inapplicable Regulation	Reason
N/A		

12. COMPLIANCE ASSURANCE MONITORING (CAM) – TITLE V PERMITS ONLY:

List sources potentially subject to CAM because they use a control device to achieve compliance and have pre-control emissions of at least 100 percent of the major source level. List the pollutant of concern and a brief summary of the CAM plan (temperature monitoring, CEMs, opacity monitoring, etc.) and frequency requirements of § 64.

Source	Pollutant Controlled	Cite Exemption or CAM Plan Monitoring and Frequency
18, 19	PM ₁₀	Conduct daily observations of the opacity from source SN-18 and SN-19 and keep a record of these observations. If the permittee detects visible emissions in excess of 20%, the permittee must immediately take action to identify and correct the cause of the visible emissions.

13. EMISSION CHANGES AND FEE CALCULATION:

See emission change and fee calculation spreadsheet in Appendix A.

14. AMBIENT AIR EVALUATIONS:

The following are results for ambient air evaluations or modeling.

a) NAAQS

A NAAQS evaluation is not required under the Arkansas State Implementation Plan, National Ambient Air Quality Standards, Infrastructure SIPs and NAAQS SIP per Ark. Code Ann. § 8-4-318, dated March 2017 and the DEQ Air Permit Screening Modeling Instructions.

b) Non-Criteria Pollutants:

The non-criteria pollutants listed below were evaluated. Based on Department procedures for review of non-criteria pollutants, emissions of all other non-criteria pollutants are below thresholds of concern.

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).

No modeling was performed for this permit revision.

Pollutant	TLV (mg/m^3)	PAER (lb/hr) = $0.11 \times \text{TLV}$	Proposed lb/hr	Pass?
Acrolein	0.2	0.022	1.03	No
Antimony	0.5	0.055	2.04E-03	Yes
Arsenic	0.01	0.0011	5.70E-03	No
Beryllium	0.00005	0.0000055	2.85E-04	No
Cadmium	0.01	0.0011	1.11E-03	No
Chlorine	0.5	0.055	2.04E-01	No
Chromium 6	0.0002	0.000022	9.70E-04	No
Chromium	0.5	0.055	5.43E-03	Yes
Cobalt	0.02	0.0022	1.68E-03	Yes
Formaldehyde	1.5	0.165	1.77	No
Hydrogen Chloride	2.98	0.3278	5.11	No
Lead	0.05	0.0055	1.24E-02	No

Pollutant	TLV (mg/m ³)	PAER (lb/hr) = 0.11 × TLV	Proposed lb/hr	Pass?
Manganese	0.02	0.0022	4.14E-01	No
Mercury	0.025	0.00275	1.06E-03	Yes
Selenium	0.2	0.022	7.25E-04	Yes

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.

All modeling was performed using 2016 Little Rock Met data and 1st high concentrations.

Pollutant	PAIL (µg/m ³) = 1/100 of Threshold Limit Value	Modeled Concentration (µg/m ³)	Pass?
Acrolein	2.0	0.267	Yes
Arsenic	0.1	1.47E-03	Yes
Beryllium	0.0005	7.0E-05	Yes
Cadmium	0.1	4.8E-04	Yes
Chlorine	5.0	0.053	Yes
Chromium 6	0.002	5.3E-04	Yes
Formaldehyde	15	5.423	Yes
Hydrogen Chloride	29.8	1.27	Yes
Lead	0.5	5.7E-04	Yes
Manganese	0.2	0.107	Yes

c) H₂S Modeling:

A.C.A. §8-3-103 requires hydrogen sulfide emissions to meet specific ambient standards. Many sources are exempt from this regulation, refer to the Arkansas Code for details.

Is the facility exempt from the H₂S Standards

Y

If exempt, explain: No H₂S Emissions

15. CALCULATIONS:

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments
01	Stack testing	<u>lb/ton</u> PM = 0.02 PM ₁₀ = 0.2% of PM	Cyclone	80%	
02, 03	AP-42 Chapter 1 Section 1.4	<u>lb/MMsf</u> PM/PM ₁₀ = 7.6 SO ₂ = 0.6 VOC = 5.5 CO = 84 NO _x = 100			
09	AP-42	<u>lb/ton</u> PM = 0.35 PM ₁₀ = 0.35	Cyclone	80%	
10	ADEQ memo	<u>lb/ton</u> PM = 0.5 PM ₁₀ = 0.2% of PM			
11,12,16	NCASI for drying kilns	<u>lb/MBF</u> VOC = 3.5 Formaldehyde = 0.016 Methanol = 0.161			
13	ADEQ memo	<u>lb/ton</u> PM = 0.16 PM ₁₀ = 0.2% of PM			
14	ADEQ memo	<u>lb/ton</u> PM = 0.04 PM ₁₀ = 0.2% of PM			
15	EPA's Tank 4.0.9d				
18, 19	AP-42 Section 1.6 And MACT limits	<u>lb/MMBtu</u> PM = 0.28 PM ₁₀ = 0.297 SO ₂ = 0.025 VOC = 0.017	Multiclone		1,000 HP each HAPs based on Boilers Bubbled at 489,949.30 MMBtu/yr and 55,000

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments
		NO _x = 0.22 CO = 466 ppmvd			tons of wood waste per year combined
20	AP-42 Section 13.2.1	Equation: $E=k(sL/2)^{0.65} * (W/3)^{1.5} - C$			
25	AP-42 Chapter 3 Table 3.3-1 NSPS III	<u>lb/MMBTU</u> SO ₂ = 0.29 VOC = 0.36 <u>g/HP-hr</u> PM/PM ₁₀ : 0.22 CO: 3.7 NO _x : 3.0			122 HP, 500 hr/yr
24	Testing AP-42 or MACT limits for engine	<u>ACD: lb/ton</u> PM/PM ₁₀ = 0.11 NO _x = 1.1 SO ₂ = 0.1 CO = 0.94 VOC = 1.1 <u>Engine: lb/hp-hr</u> PM/PM ₁₀ = 2.20E-03 NO _x = 3.10E-02 SO ₂ = 2.05E-03 VOC = 2.51E-03 CO = 5 g/kW-hr	None	N/A	20,000 tons/yr wood waste
26	AP-42	PM = 0.02 lb/ton PM ₁₀ = 0.011 lb/hr			140 TPH/625,000 TPY of Logs

16. TESTING REQUIREMENTS:

The permit requires testing of the following sources.

SN	Pollutants	Test Method	Test Interval	Justification
24	Opacity	Method 9	Initial and Annual	40. C.F.R. § 60 Subpart CCCC

17. 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)
18, 19	Opacity	COMS	Continuously	N

18. 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	180,000 gallons diesel and 50,000 gallon gasoline per 12 month	Monthly	Y
18, 19	Opacity Observations	N/A	Daily	N
	Wood waste	55,000 tons per year combined	Monthly	Y
	Records required by NESHAP JJJJJ §63.11225	N/A	As required	N
25	Hours of Operation	500 hours per 12 month	Monthly	Y
	Corrective Action as described by §60.4214(c)	N/A	As Required	N
24	Wood Combusted	20,000 tons	Monthly	Y
	Initial Opacity Test results	N/A	N/A	N
Plantwide	Throughput	120,000,000 BF per consecutive 12-month period	Monthly	Y
Plantwide	Plantwide CO Emissions	254.4 tpy CO	Monthly	Y

SN	Recorded Item	Permit Limit	Frequency	Report (Y/N)
02, 03, 11, 12, 16, 18, 19, and 24	Total HAP emissions	24.04 tons per rolling 12-month period (PW #12)	Monthly	Y
Plantwide	Single HAP	9.66 tpy	Monthly	Y

19. OPACITY:

SN	Opacity	Justification for limit	Compliance Mechanism
01, 09, 10, 13, 14, 18, 19	20%	8 CAR § 41-403	Daily Observation
25	20%	8 CAR § 41-403	Annual Observation
02, 03, 20	5%	8 CAR § 40-401	Daily Observation
24	10% 35% startup 20%	NSPS NSPS Reg 19	Daily Observation
26	20%	§19.503	Weekly

20. DELETED CONDITIONS:

Former SC	Justification for removal
	None

21. GROUP A INSIGNIFICANT ACTIVITIES:

The following is a list of Insignificant Activities including revisions by this permit.

Source Name	Group A Category	Emissions (tpy)						
		PM/PM ₁₀	SO ₂	VOC	CO	NO _x	HAPs	
							Single	Total
Logo painting operations	A-13	-	-	0.11	-	-	-	-
180 gal. Sub-Base Diesel Tank for SN-25	A-3	-	-	<0.01	-	-	-	<0.01

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22. VOIDED, SUPERSEDED, OR SUBSUMED PERMITS:

The following is a list of all active permits voided/superseded/subsumed by the issuance of this permit.

Permit #
1140-AOP-R9

APPENDIX A – EMISSION CHANGES AND FEE CALCULATION

Fee Calculation for Major Source

Revised 03-11-16

Facility Name: Anthony Timberlands, Inc.
 Permit Number: 1140-AOP-R10
 AFIN: 30-00084

\$/ton factor	28.14	Annual Chargeable Emissions (tpy)	<u>472.79725</u>
Permit Type	Modification	Permit Fee \$	<u>1000</u>

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 ☐

If Hold Active Permit, Amt of Last Annual Air Permit Invoice \$ 0

Total Permit Fee Chargeable Emissions (tpy) 0.6

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		127.5	128.6	1.1	1.1	128.6
PM ₁₀		95.2	95.8	0.6		
PM _{2.5}		0	0	0		
SO ₂		8.9	8.9	0	0	8.9
VOC		228.4	227.9	-0.5	-0.5	227.9
CO		245.4	245.4	0		
NO _x		99.9	99.9	0	0	99.9
Lead	☐	0.05	0.05	0		

Pollutant (tpy)	Check if Chargeable Emission	Old Permit	New Permit	Change in Emissions	Permit Fee Chargeable Emissions	Annual Chargeable Emissions
HCl	☒	7.1	7.1	0	0	7.1
Mercury	☐	0.02	0.02	0		
Methanol	☐	9.66	9.66	0		
Other HAPs	☐	8.46	8.47	0.01		
Acetone	☒	0.08	0.08	0	0	0.08
Chlorine	☒	0.302653	0.302653	0	0	0.302653
Tetrachloroethene	☒	0.0146	0.0146	0	0	0.0146