

STATEMENT OF BASIS

For the issuance of Draft Air Permit # 2055-AR-3 AFIN: 70-00004

1. PERMITTING AUTHORITY:
Arkansas Department of Environmental Quality
5301 Northshore Drive
North Little Rock, Arkansas 72118-5317

2. APPLICANT:
Anthony Timberlands, Inc.
170 Mill Road
Mount Holly, Arkansas 71758

3. PERMIT WRITER:
Amanda Leamons

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	Short Description of Any Changes That Would Be Considered New or Modified Emissions
12/6/2019	Modification	Increase wood/log throughput by 50%. Increased PM/PM10 emissions at SNs 01-04.

6. REVIEWER'S NOTES:
The facility requested an increase in greenwood throughput at the sawmill. The limit was 130,050 tons hardwood at the Debarker per 12 months; the requested new limit is 30 MM board feet of green lumber per 12 months. The calculations were based on a correlation of 6.5 tons of green logs produces 1 M board feet of green lumber. This was derived from the fact that in 2019 about 75,000 tons of wood produced 12,115 M bdft which equates to 6.2 tons per 1,000 board feet; then a 5% safety factor was added. The facility did not provide monthly throughput records to demonstrate this correlation. Therefore, the permittee shall not process more than 30,000,000 bdft or no more than 195,000 tons of green lumber at the Debarker (SN-01) per rolling 12 month period. All of the calculations for SN-01 through SN-04 are tied to tons of green wood processed.

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 compliance inspection was conducted in January 2016 and the facility was out of compliance. The facility failed to demonstrate compliance with NESHAP JJJJJJ, Specific Conditions 11, 12, 17, 18, and 21 of their current permit. At the time of the inspection, the facility had not conducted the energy assessment and tune up. The facility conducted the energy assessment and tune up on 02/04/2016. The non-compliance issues were handled informally.

In August 2019 complaints from community members were forwarded to the Department. The inspector investigated the complaints on multiple visits in August finding that the facility had burning piles of sawdust. Later in the month the facility extinguished the fires. No enforcement proceedings were recommended following the unpermitted fires.

8. PSD/GHG APPLICABILITY:

Did the facility undergo PSD review in this permit (i.e., BACT, Modeling, etc.)? N

If yes, were GHG emission increases significant? N/A

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)
04	NA	NSPS Dc
	CO, HAPs	NESHAP JJJJJJ
14	HAPs	NESHAP CCCCCC

10. PERMIT SHIELD – TITLE V PERMITS ONLY:

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

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

11. EMISSION CHANGES AND FEE CALCULATION:

See emission change and fee calculation spreadsheet in Appendix A.

12. 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 ADEQ 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/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	0.0281	No

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 (µg/m ³) = 1/100 of Threshold Limit Value	Modeled Concentration (µg/m ³)	Pass?
Acrolein	2.3	0.4	Y

*Modeling performed for AR-2, no increases in HAP emissions were requested with AR-3.

c) H₂S Modeling: N/A

13. CALCULATIONS:

SN	Emission Factor Source	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments
01	EIIP, Vol. II, Chap. 14, 2001	PM – 0.02 lb/ton PM ₁₀ – 0.011 lb/ton	None	NA	Log debarking
02	EIIP, Vol. II, Chap. 14, 2001	PM – 0.35 lb/ton PM ₁₀ – 0.20 lb/ton	None	NA	Log sawing

SN	Emission Factor Source	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments
03	EIIP, Vol. II, Chap. 14, 2001	PM – 0.36 lb/ton PM ₁₀ – 1.0 lb/ton	None	NA	Sawdust pile handling
04	ADEQ Memo 2003	PM – 0.0008 lb/ton PM ₁₀ – 0.00008 lb/ton	None	NA	Green chip loading
05	AP-42, 1985	PM – 1.00 lb/ton PM ₁₀ – 1.00 lb/ton	Cyclone	80%	
06	Stack Test	250 hp 70% efficient Fuel rate = 4,393 tons/yr heat content = 4,500 BTU/hr Tested rate: PM/PM ₁₀ – 1.51 lb/hr Limit based on: PM/PM ₁₀ – 2.4 lb/hr	Multi-clone	80%	
07 – 12	NCDENR Wood Kiln	SNs 07-10: 85 MBF/batch SNs 11&12: 100 MBF/batch 22 MMBF/yr 144 hr/cycle minimum 0.022 lb _{PM/PM10} /MBF 4.09 lb _{VOC} /MBF 0.052 lb _{acetaldehyde} /MBF 0.0075 lb _{acrolein} /MBF 0.0183 lb _{formaldehyde} /MBF 0.199 lb _{methanol} /MBF 0.01 lb _{phenol} /MBF	None	NA	
13	AP-42	Fuel rate = 200 tons/hr, 620,500 tons/yr 0.0037 lb _{PM} /ton 0.0018 lb _{PM10} /ton	None	NA	
14	TANKS	1,000 gal tank 24 turnovers/yr 8.45 lb _{VOC} /hr* 0.2 ton _{VOC} /yr			*Assumed 1 turnover per hour

14. TESTING REQUIREMENTS:

The permit requires testing of the following sources.

SN	Pollutants	Test Method	Test Interval	Justification
06	Performance Tune-up	According to 40 CFR §63.11223(b) Specific Condition 20	Every 25 months	NSPS Subpart JJJJJ

15. MONITORING OR CEMS:

There are no monitoring or CEMS requirements in this permit.

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	Green Lumber Processed	30 MM bdf/yr OR 195,000 tons/yr	Monthly	N
06	Amount of sawdust and wood chips combusted	4,393 tons/yr	Monthly	N
06	Amount of fuel combusted	NA	Daily	N
06	Inspect/clean/fix burner	NA	Biennially (no more than 25 months from previous)	N*
	Inspect/correct burner flame pattern	NA		N
	Inspect/optimize Air to Fuel Ratio	NA		N
	Optimize CO emissions	NA		N
	Measure CO ppm	NA		N
	Energy assessment results	NA		N
	Malfunctions	NA		N
07 -12	Lumber dried	22 MM bdf/yr	Monthly	N
15	Gasoline Thru-put	24,000 gal/yr	Monthly	N
		9,999 gal/month	Upon Request	N

*The facility is required to submit biennial reports to certify that they are in compliance under 40 CFR Part 63, Subpart JJJJJ (Specific Condition 22).

17. OPACITY:

SN	Opacity	Justification for limit	Compliance Mechanism
01, 02, 03, 04, and 13	20%	Department Guidance	Annual Inspection
05 and 06	10%	Department Guidance	Annual Inspection

18. DELETED CONDITIONS:

Former SC	Justification for removal
	<i>No conditions were removed.</i>

19. 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
Diesel Tank (2,000 gal)	A-3			0.0019			0.0019	0.0019

20. VOIDED, SUPERSEDED, OR SUBSUMED PERMITS:

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

Permit #
2055-AR-2

APPENDIX A – EMISSION CHANGES AND FEE CALCULATION

Fee Calculation for Minor Source

Revised 03-11-16

Facility Name: Anthony Timberlands,
Inc.

Permit Number: 2055-AR-R3

AFIN: 70-00004

			Old Permit	New Permit
\$/ton factor	23.93	Permit Predominant Air Contaminant	54.1	68.3
Minimum Fee \$	400	Net Predominant Air Contaminant Increase	14.2	
Minimum Initial Fee \$	500			
		Permit Fee \$	400	
Check if Administrative Amendment <input type="checkbox"/>		Annual Chargeable Emissions (tpy)	68.3	

Pollutant (tpy)	Old Permit	New Permit	Change
PM	54.1	68.3	14.2
PM ₁₀	39	46.5	7.5
PM _{2.5}	0	0	0
SO ₂	1.3	1.3	0
VOC	46.1	46.1	0
CO	31.5	31.5	0
NO _x	11.6	11.6	0
Chlorine	0.04	0.04	0
Hydrogen chloride	1	1	0
Lead	0.01	0.01	0
Total other HAPs	4.02	4.02	0