STATEMENT OF BASIS

For the issuance of Draft Air Permit # 1355-AR-4 AFIN: 10-00070

1. PERMITTING AUTHORITY:

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

2. APPLICANT:

Anthony Timberlands, Inc.
Highway 51 South
Beirne, Arkansas 71721

3. PERMIT WRITER:

Elliott Marshall

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
3/16/2020	Title V to Minor Source	-Removal of SN-18A, SN-18B and SN-19 -Updated (lowered) throughput limits -Reduced Plantwide Total HAP limit. -Removed acetone at SN-17 -Permitted gasoline/diesel tank

6. REVIEWER'S NOTES:

This facility submitted an application to go from Title V to Minor Source status. In addition, the following changes were made:

1. Removed Air Curtain Destructor (ACD) and associated sources (SN-18A, SN-18B and SN-19). Removed 40 C.F.R. 60 Subpart CCCC.
2. Updated throughput limits to reflect Minor Source status and new production limits (Specific Conditions #59 and #60).
3. Reduced Plantwide Total HAP emission limit (Specific Condition #57)
4. Removed Acetone from SN-17; there are no acetone emissions from this source.
5. Removed weekly opacity readings (SN-02, 03, 06, 07, 10, 11, 14, 15) to be consistent with other minor source lumber mills and removed CAM requirements (SN-01).
6. Add gasoline/diesel storage tank (SN-20) as a permitted source (previously IA), and associated NESHAP CCCCCC conditions. Since the facility is now an area source of HAPs, the gasoline portion of the storage tank is subject to NESHAP CCCCCC.
7. Removed 40 C.F.R. 63 Subpart DDDD conditions; the facility is now an area source of HAPs and no longer subject to this subpart.

Permitted emission rates are decreasing by 78.3 tpy PM, 70.1 tpy PM_{10}, 5.8 tpy SO_2, 26.5 tpy VOC, 113.7 tpy CO, 51.9 tpy NO_x, 0.03 tpy Lead, 3.36 tpy Total HAPs and 0.0232 tpy Acetone.

7. COMPLIANCE STATUS:

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

The facility was last inspected January 15, 2020; the inspection revealed no areas of concern. There are no active or pending enforcement actions.

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

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)
13A, 13B, and 13C	Criteria	40 C.F.R. § 60 Subpart Dc 40 C.F.R. § 63 Subpart JJJJJJ
08 and 09	N/A	40 C.F.R. § 63 Subpart DDDD
17	CO, NO_x, and SO_2	40 C.F.R. § 63 Subpart ZZZZ 40 C.F.R. § 60 Subpart IIII

10. 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
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		

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:

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).

The PAER Table was updated, but only because there were emission decreases associated with this permit revision (1355-AR-4) and Beryllium was not included previously.

Pollutant	TLV (mg/m^3)	PAER (lb/hr) = 0.11 × TLV	Proposed lb/hr	Pass?
Acenaphthylene (POM)	0.2	0.022	2.86E-04	Y
Acrolein	0.23	0.0252	2.28E-01	N
Arsenic	0.01	0.0011	1.25E-03	N
Beryllium	0.00005	5.5E-06	6.27E-05	N
Cadmium	0.002	0.00022	2.34E-04	N
Chlorine	1.45	0.1595	4.5E-02	Y
Chromium (hexavalent)	0.01	0.0011	2.0E-04	Y
DEGMME *	96.66	10.632	2.26	Y
Formaldehyde	0.36	0.0396	2.51E-01	N
Hydrogen Chloride	2.98	0.3278	1.08	N
Manganese	0.2	0.022	9.12E-02	N
Methanol *	262.08	28.8288	0.08	Y
Phenanthrene (POM)	0.2	0.022	4.06E-04	Y
Phenol	19.24	2.1169	2.91E-03	Y
Styrene	85.20	9.372	1.08E-01	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.

Only Beryllium was modeled for this permit revision; All sources had decreased emissions.

Pollutant	PAIL ($\mu g/m^3$) = 1/100 of Threshold Limit Value	Modeled Concentration ($\mu g/m^3$)	Pass?
Acrolein	2.3	1.13	Y
Arsenic	0.1	0.00615	Y
Beryllium	0.0005	9.0E-05	Y
Chromium (Hexavalent)	0.05	0.00339	Y
Formaldehyde	15*	1.186	Y
Lead	0.5	0.0134	Y
Manganese	1.0	0.44826	Y

* Per ADEQ

13. CALCULATIONS:

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (Lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments
01	Stack Test Data	PM=29.1 tph*99.99%*2000 PM=98,182 tpy*99.99% PM_{10}=5.9 lb/hr * 0.1 PM_{10}=9.82 tpy* 0.1	Cyclone	99.99%	45 MMbf/yr 29.1 tph & 98,182 tpy PM_{10}=10% of PM
02, 03	Stack Test Data	PM=1.42tph*99.99%*2000/2 sources PM=(3,382 tpy*99.99%)/2 sources PM_{10}=1.5 lb/hr * 0.1 1.69 tpy* 0.1	Cyclone	99.9%	31 MMbf/yr 1.42 tph & 3,382 tpy PM_{10}=10% of PM
06, 07	Stack Test Data	PM=14.9 tph*99.99%*2000 PM=50,073 tpy*99.99% PM_{10}=3.0 lb/hr * 0.1 5.007 tpy* 0.1	Cyclone	99.99%	45 MMbf/yr 14.9 tph & 50,073 tpy PM_{10}=10% of PM
08	Dept. Guidance Letter dated 2-21-1995	0.25 lb VOC/1000 board ft (This factor is 25% of the ADEQ hardwood dry kiln VOC factor.) 2,431 Bf/hr & 21 MMbf/yr	N/A	N/A	Of the lumber that is pre-dried (21 MMbf/yr), 25% of VOC emissions are emitted from the pre-dryer and 75% of VOC emissions are emitted from the kilns.
09	Dept. Guidance Letter dated 2-21-1995	(10,010 bf/hr *1.0 lb VOC/1000 bf)-(0.75 lb/hr)= 9.5 lb/hr (21 MMbf*0.75 lb VOC/1,000 bf + 10 MMbf*1.0 lb VOC/1,000 bf)*(1 ton/2000 lb)= 12.88 tpy	N/A	N/A	Of the lumber that is pre-dried (21 MMBF/yr), 25% of VOC emissions are emitted from the pre-dryer and 75% of VOC emissions are emitted from the kilns. Of the lumber that is not pre-dried (10 MMBF/yr), 100% of VOC emissions are emitted from the kilns.

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (Lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments
10	Dept. Guidance Letter dated 8/22/03	lb/ton PM= 0.0022 PM_{10}= 0.00018	None	N/A	PM/PM_{10}= 1.42 tph & 3,382 tpy 31 MMBF/yr
11	Dept. Guidance Letter dated 8/22/03	Lb/ton PM= 0.0008 PM_{10}= 0.00008	None	N/A	PM/PM_{10}= 50.5 tph & 198,000 tpy 45 MMBF/yr
12	Mass Balance	7.208 lb VOC/gal 5.406 lb/gal (DEGMME[1]) 0.18 lb/gal (Methanol[1]) 5.586 lb Total HAP/gal (sum of DEGMME & Methanol)	None	N/A	8,760 hr/yr 3,662 gal/yr
13A, 13B, 13C	AP-42 1.6, Stack Test Data	PM=1.104 Lb/MMBtu PM_{10}=1.121 Lb/MMBtu NO_X=0.22 Lb/MMBtu SO_2=0.025 Lb/MMBtu CO=0.60 Lb/MMBtu VOC=0.017 Lb/MMBtu HAPs listed in AP-42	Multicyclone	95%	PM/PM_{10}= Controlled Others = Uncontrolled 19.0 MMBtu/hr each
14	Old AP-42 (9/1985) Factors	Lb/ton PM= 0.020 PM_{10}= 0.011	None	N/A	PM/PM_{10}= 92 tph & 234,000 tpy 45 MMBF/yr
15	Dept. Guidance Memo dated 8-22-2003	Lb/ton PM=0.0044 PM_{10}=0.00034	None	N/A	PM/PM_{10}= 38 tph & 95,727 tpy 45 MMBF/yr
16	AP-42 for paved roads Section 13.2.1	PM=2.557 lb/VMT PM_{10}=0.498 lb/VMT K (PM)= 0.082 lb/VMT K (PM_{10})= 0.016 lb/VMT sL= 3 g/m^2 W= 24.932 tons C= 0.00047 lb/VMT	None	N/A	12,068 miles/yr 5.25 miles/hr

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (Lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments
17	AP-42 Chapter 3.3	Lb/MMBtu PM=0.31 PM_{10}=0.31 SO_2=0.29 VOC=0.36 CO=0.95 NO_X=4.41 HAPs listed in AP-42	None	N/A	Annual calculated at 500 hrs/yr
20	Tanks 4.0.9d	50.22 lb VOC/hr	None	N/A	8,021 gal diesel partition at 16.21 turnover/yr. 4,010.8 gal gasoline partition at 3.99 turnover/yr.

14. TESTING REQUIREMENTS:

The permit requires testing of the following sources.

SN	Pollutants	Test Method	Test Interval	Justification
13A, 13B, 13C	N/A	Tune-Up	Biennially	40 C.F.R. § 63 Subpart JJJJJJ

15. 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)
13A, 13B, 13C	Opacity	COMS	Continuously	N

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)
Facility	Lumber Production	45,000,000 board feet green lumber per rolling 12 month	Monthly	N
Facility	Lumber Production	31,000,000 board feet kiln dried lumber per rolling 12 month	Monthly	N
12	Chemical Usage	3,662 gal/yr. of Chemical Dip	Monthly	N
12	Pollutant Content	7.208 lb VOC/gal 5.406 lb Single HAP/gal 5.5862 lb Total HAP/gal	Monthly	N
12	Substitution HAP TLV	See SC #11	As Needed	N
13A, 13B, 13C	Amount of fuel combusted	N/A	Daily	N
16	Opacity	5%	Weekly	N
17	#2 fuel oil (diesel fuel)	sulfur content no greater than 0.05% (500 ppm) by weight	Monthly	N
17	Hours of Operation	500 hours/yr	Annual	N
Plantwide	Single/Total HAP Usage	9.9 tpy Single HAP 13.25 tpy Total HAP	Monthly	N
20	Throughput of gas/diesel	130,000 gal/yr diesel 16,000 gal/yr gasoline	Monthly	N

17. OPACITY:

SN	Opacity	Justification for limit	Compliance Mechanism
01, 02, 03, 06, 07, 10, 11, 14, 15	20%	Reg.19.503	Inspector Observation
13A, 13B, 13C	20%	Reg.19.503	COMS
16	5%	Reg.18.501	Weekly Observations
17	20%	Reg.19.503	Inspector Observation

18. DELETED CONDITIONS:

Former SC	Justification for removal
4, 5, 6	CAM requirements for SN-01 removed since the facility is now minor source.
10, 14, 18, 32, 36, 75, 79	Weekly opacity observations not required as minor source. Other minor source lumber mills do not have this requirement for particulate emitting sources.
24, 25	Throughput limit for dry kilns (SN-09) and record keeping requirement have been converted to a facility wide production limit of 31 MMBF/yr kiln dried lumber.

Former SC	Justification for removal
46, 47	Throughput limit for Boilers (SN-13 A, B, C) and record keeping requirement has been converted to a facility wide production limit of 45 MMBF/yr green lumber.
102 through 123	These sources pertained to the ACD and Associated operations; this source has been removed.
20 through 22 and 26 through 28	These conditions pertained to NESHAP DDDD. The facility is an area source and no longer subject to this subpart.

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
Logo Painting – VOC 0.583 lb/gal	A-13			0.2			none	

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 #
1355-AOP-R6

APPENDIX A – EMISSION CHANGES AND FEE CALCULATION

Fee Calculation for Major Source Changing to Minor Source

Revised 03-11-16

Facility Name: Anthony Timberlands, Inc.
Permit Number: 1355-AR-4
AFIN: 10-00070

$/ton factor	23.93	Annual Chargeable Emissions (tpy)	127.6
Minimum Fee $	400	Permit Fee $	400

Title V Permit Chargeable Emissions (tpy) 347.5132

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	Title V Permit Annual Chargeable Emissions
PM		205.9	127.6	-78.3	205.9
PM_{10}		164.4	94.3	-70.1	
$PM_{2.5}$		0	0	0	
SO_2		7.9	2.1	-5.8	7.9
VOC		57.6	31.1	-26.5	57.6
CO		160.3	46.6	-113.7	
NO_X		69.3	17.4	-51.9	69.3
Lead	☐	0.04	0.01	-0.03	
Total HAP	☐	16.89	13.53	-3.36	
Acetone	☑	4.32E-02	0.02	-0.0232	0.0432
Chlorine	☑	0.29	0.06123	-0.22877	0.29
Hydrogen Chloride	☑	6.48	1.4725	-5.0075	6.48
Tetrachloroethene	☑	0	0.00295	0.00295	0