

STATEMENT OF BASIS

For the issuance of Air Permit # 0684-AOP-R1 AFIN: 35-00187

1. PERMITTING AUTHORITY:

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

2. APPLICANT:

Highland FR, LLC
1609 Celia Road
Pine Bluff, Arkansas 71611

3. PERMIT WRITER:

Jae Jung

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
05/13/2026	Significant Modification	Increase throughput limits

6. REVIEWER'S NOTES:

Highland FR, LLC (formerly Fiber Resources, Inc.), located at 1609 Celia Road, Pine Bluff, AR 71611, is a pellet mill which processes green wood fiber to produce wood pellets. The facility submitted an application to increase throughput limits and permitted emission limits based on those increased throughput limits.

- SC-5: Revise the throughput limit from 35,360 to 46,000 tons of green sawdust per consecutive 12-month period.
- SC-27: Revise the throughput limit from 4,380 to 5,700 tons of dry fiber fuel per consecutive 12-month period.

- SC-37: Revise the throughput limit from 133,100 to 173,030 tons of dry shavings per consecutive 12-month period.
- SC-37: Revise the throughput limit from 30,000 to 39,000 tons of dry sawmill cutoffs per consecutive 12-month period.
- SC-43: Revise the production limit from 150,000 to 180,000 metric tons of finished pellets per consecutive 12-month period.
- Update the permitted PM, PM₁₀, VOC, and HAPs emission limits for sources SN-101 through SN-106 and SN-201 through SN-300 based on the increased throughput limits.
- Update the permit to reference 8 CAR §40, §41, and §42.

Overall annual permitted emissions will increase 3.6 tpy PM, 0.3 tpy PM₁₀, 41.4 tpy VOC, 0.11 tpy Acetone, and 0.67 tpy Total HAPs.

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 currently no active/pending enforcement actions or recent compliance activities and issues. The last inspection was performed on November 18, 2024 and the facility was found to be in compliance with their permit. <https://echo.epa.gov/detailed-facility-report?fid=110025088642>.

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? NA

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)
202	PM/PM ₁₀	40 C.F.R. Part 64
301	PM/CO/NO _x	40 C.F.R. Part 60, Subpart IIII
	N/A	40 C.F.R. Part 63, Subpart ZZZZ

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
None				

11. PERMIT SHIELD – TITLE V PERMITS ONLY:

Did the facility request a permit shield in this application? No

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

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
105	PM ₁₀	Inherent Process Control Equipment
202	PM ₁₀	Fabric Filter 5% opacity limit Daily Method 9 readings

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 Division of Environmental Quality 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 Division of Environmental Quality 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).

Pollutant	TLV (mg/m^3)	PAER (lb/hr) = $0.11 \times \text{TLV}$	Proposed lb/hr	Pass?
Acrolein	0.23	0.0253	0.163	No
Arsenic	0.01	0.011	0.000528	Yes
Benzene	0.064	0.00704	0.101	No
Beryllium	0.00005	0.0000055	0.0000264	No
Highest Single PCB/PCDD/PCDF (Hexachlorodibenzo-p-dioxins)	0.5	0.055	0.000038	Yes
Cadmium	0.01	0.0011	0.00000984	Yes
Chromium	0.05	0.0055	0.000504	Yes
Chromium VI	0.0002	0.000022	0.000084	Yes
Cobalt	0.02	0.0022	0.000156	Yes
Manganese	0.1	0.011	0.0384	No
Mercury	0.01	0.0011	0.000084	Yes
Nickel	0.1	0.011	0.00079	Yes
Selenium	0.2	0.022	0.0000672	Yes

PCB - polychlorinated biphenyls

PCDD - polychlorinated dibenzo-p-dioxins

PCDF - polychlorinated dibenzofurans

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 Division of Environmental Quality to be one one-hundredth of the Threshold Limit Value as listed by the ACGIH.

Pollutant	PAIL ($\mu\text{g}/\text{m}^3$) = 1/100 of TLV	Modeled Emission Rate (lb/hr)	Modeled Concentration ($\mu\text{g}/\text{m}^3$)	Pass?
Acrolein	2.3	0.163	2.17	Y
Benzene	0.64	0.101	0.0035	Y
Beryllium	0.0005	0.0000264	0	Y
Manganese	1.0	0.0384	0.00133	Y

*Modeled 684-AOP-R0 modification using one year of METDATA for the year 2016, took the 1st high.

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? No, but there are no H₂S emissions

15. CALCULATIONS:

SN	Emission Factor Source	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments
101	ADEQ Memo 08/22/03	23 ton _{GreenSawdust} /hr 46,000 ton _{GS} /yr 0.0008 lb _{PM} /ton 0.00008 lb _{PM10} /ton	None		
102	ADEQ Memo 08/22/03, EPA Reg10 Memo, NCASI, & GA EPD	23 ton _{GreenSawdust} /hr 46,000 ton _{GS} /yr Transfer factors: 0.0008 lb _{PM} /ton 0.00008 lb _{PM10} /ton GF Storage factors: 0.38 ton _{PM} /acre-yr 0.19 ton _{PM10} /acre-yr 3.6 lb _{VOC} /day-acre Acetaldehyde 0.25% of VOC Formaldehyde 0.50% of VOC Methanol 0.25% of VOC	None	N/A	2 transfer points 0.029 acres

SN	Emission Factor Source	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments
103	ADEQ Memo 08/22/03	8.32 ton _{GreenFibert} /hr 46,000 ton _{GS} /yr 4 transfer points 0.0008 lb _{PM} /ton 0.00008 lb _{PM10} /ton	None		
104	Enviva Northampton ST & AP-42 10.6.2-7	8.32 ton _{GreenFibert} /hr 46,000 ton _{GS} /yr 0.32 lb _{VOC} /ODT 0.0064 lb _{Acetone} /ODT 0.0084 lb _{Acetaldehyde} /ODT 0.016 lb _{Acrolein} /ODT 0.0048 lb _{Formaldehyde} /ODT 0.037 lb _{Methanol} /ODT 0.0046 lb _{Phenol} /ODT 0.0012 lb _{Propionaldehyde} /ODT	None		Used Dry Hammermill factors
105	ADEQ Memo & AP-42 10.6.2-3	8.32 ton _{GreenFibert} /hr 46,000 ton _{GS} /yr 50% moisture 0.0022 lb _{PM} /ODT 0.00018 lb _{PM10} /ODT 0.43 lb _{VOC} /ODT 0.047 lb _{Formaldehyde} /ODT 0.027 lb _{Methanol} /ODT	None		
106	ADEQ Memo 08/22/03	4 ton _{DryFiber} /hr 23,000 ton _{DF} /yr 2 transfer points Transfer factors: 0.0022 lb _{PM} /ton 0.00018 lb _{PM10} /ton Storage factors: 0.0011 lb _{PM} /ton 0.00009 lb _{PM10} /ton	None		
107	ADEQ Memo 08/22/03	0.5 ton _{DryFiber} /hr 4,380 ton _{DF} /yr 2 transfer points Transfer factors: 0.0022 lb _{PM} /ton 0.00018 lb _{PM10} /ton	None		

SN	Emission Factor Source	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments
		Storage factors: 0.0011 lb _{PM} /ton 0.00009 lb _{PM10} /ton			
108	AP-42 1.6.1, 1.6.2, and 1.6.3	24 MMBTU/hr 0.4 lb _{PM} /MMBTU 0.36 lb _{PM10} /MMBTU 0.025 lb _{SO2} /MMBTU 0.017 lb _{VOC} /MMBTU 0.6 lb _{CO} /MMBTU 0.49 lb _{NOx} /MMBTU HAPS see application	None		
201	ADEQ Memo 08/22/03	27 ton _{DF} /hr 212,030 ton _{DF} /yr 3 transfer points Transfer factors: 0.0022 lb _{PM} /ton 0.00018 lb _{PM10} /ton Storage factors: 0.0011 lb _{PM} /ton 0.00009 lb _{PM10} /ton	None		
202	Stack Test (Highland Pellet 8/19/22), AP-42 10.6.2-7, & GA EPD data	50 metric ton _{pellets} /hr 180,000 m. tons _{pellets} /yr 43,600 cfm PM/PM ₁₀ 0.001 gr/scf 2.21 lb _{VOC} /m.ton 0.0064 lb _{acetone} /m.ton 0.0037 lb _{acetaldehyde} /m.ton 0.0074 lb _{formaldehyde} /m.ton 0.0037 lb _{methanol} /m.ton	Fabric Filter PI/Pulse Round Filter	99.9	m.= metric 1.102 ton/m. ton
203	ADEQ Memo 08/22/03	27 ton _{DryFiber} /hr 212,030 ton _{DF} /yr 41 transfer points 0.0022 lb _{PM} /ton 0.00018 lb _{PM10} /ton	None		
204	ADEQ Memo 08/22/03 & GA EPD	27 ton _{DF} /hr 212,030 ton _{DF} /yr 1 transfer point	None		

SN	Emission Factor Source	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments
		Transfer factors: 0.0022 lb _{PM} /ton 0.00018 lb _{PM10} /ton Storage factors: 0.0011 lb _{PM} /ton 0.00009 lb _{PM10} /ton 0.4 lb _{VOC} /ton product 0.001 lb _{acetaldehyde} /ton product 0.002 lb _{formaldehyde} /ton product 0.001 lb _{methanol} /ton product			
300	AP-42 13.2.1.3	2.25 miles/hr 17,265 miles/yr W=22.91 tons sL=3 g/m ² P=105 days N=365 days Hourly: 0.73 lb _{PM} /VMT 0.15 lb _{PM10} /VMT Annual: 0.68 lb _{PM} /VMT 0.14 lb _{PM10} /VMT	None		Paved Roads
301	40 CFR 89.112: Table 1, Tier 3 & AP-42 3.3-1 & 2	389.0 hp 200 kW 2.72 MMBtu/hr 500 hr/yr 0.2 g _{PM} /PM ₁₀ /kW-hr 2.05E-03 lb _{SO2} /hp-hr 2.47E-03 lb _{VOC} /hp-hr 3.5 g _{CO} /kW-hr 4.0 g _{NOx} /kW-hr			

16. TESTING REQUIREMENTS:

The permit requires testing of the following sources.

SN	Pollutants	Test Method	Test Interval	Justification
301	NMHC+NO _x CO PM	See 40 CFR 60.4213	Initial within 1 year of alternating operation (See Justification)	Only if not operated according to manf. instructions, etc. (See SC 76)

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)
301	Hours of operation	Non-resettable meter	continuous	Y

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)
101	Green Sawdust Throughput	46,000 tons/yr	Monthly	Y
107	Dry Fiber Throughput	5,700 tons/yr	Monthly	Y
201	Dry Shavings Throughput Dry Sawmill Cutoffs	173,030 tons/yr 39,000 tons/yr	Monthly	Y
202	Finished Pellets	180,000 tons/yr	Monthly	Y
301	Total Hours of Operation	500 hr/yr	Monthly	Y
	Operation time & the reason the engine was in operation during that time	See SC # 75: 100 hr/yr for Non-emergency as allowed by 60.4211(f)(3), 50 hr/yr Non-emergency included in 100 hr/yr above.	Continuous meter, Any time engine is operated.	Y

19. OPACITY:

SN(s)	Opacity	Justification for limit	Compliance Mechanism
101, 102, 201, 203, 204	No VE	8 CAR § 40-401	Weekly – VE observation
103, 106, 108	20 %	8 CAR § 41-403	Weekly - EPA Method 9
105, 107	5 %	8 CAR § 40-401	Weekly – EPA Method 9
202	5 %	8 CAR § 40-401 & CAM	Daily- EPA Method 9
301	20 %	8 CAR § 41-403	Annual (Daily when continuous use exceeds 24 hours)

20. DELETED CONDITIONS:

Former SC	Justification for removal
	N/A

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
AW 46 Hydraulic Tote	A-2			<0.01			<0.01	<0.01
Mobiltrans HD30 Tote	A-2			<0.01			<0.01	<0.01
<i>Total for A-2 Group</i>				<i>0.01</i>			<i>0.01</i>	<i>0.01</i>
Diesel Tank #1 (1,000 gal)	A-3			0.001			0.001	0.001
Diesel Tank #2 (1,000 gal)	A-3			0.001			0.001	0.001
Diesel Tank #3 (600 gal)	A-3			<0.001			<0.001	<0.001
<i>Total for A-3 Group</i>				<i>0.002</i>			<i>0.002</i>	<i>0.002</i>

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 #
0684-AOP-R0

APPENDIX A – EMISSION CHANGES AND FEE CALCULATION

Facility Name: Highland FR LLC
 Permit Number: 0684-AOP-R1
 AFIN: 35-00187

\$/ton factor	28.14	Annual Chargeable Emissions (tpy)	373.54
Permit Type	Modification	Permit Fee \$	1288.249
			2

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) 45.78

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		57.7	61.3	3.6	3.6	61.3
PM ₁₀		42.2	42.5	0.3		
PM _{2.5}		0		0		
SO ₂		2.9	2.9	0	0	2.9
VOC		207.7	249.1	41.4	41.4	249.1
CO		63.5	63.5	0		
NO _x		52.1	52.1	0	0	52.1
Acetone	☒	0.61	0.72	0.11	0.11	0.72
Total HAPs	☒	6.75	7.42	0.67	0.67	7.42