

STATEMENT OF BASIS

For the issuance of Air Permit # 2361-AR-3 AFIN: 22-00392

1. PERMITTING AUTHORITY:

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

2. APPLICANT:

EnviraPAC Monticello, LLC
 346 Firing Range Road
 Monticello, Arkansas 71655

3. PERMIT WRITER:

Sarah Neoh

4. NAICS DESCRIPTION AND CODE:

NAICS Description: All Other Miscellaneous Wood Product Manufacturing
 NAICS Code: 321999

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
12/14/2022	DeMinimis	<ul style="list-style-type: none"> • Change the annual material throughput from 333,333 tons per year to 78,752 tons per year. • Remove 0.195 mmBtu Natural Gas Pilot Light for Wood Gas Flare (Emergency Only) and change both the 0.048 mmBtu Natural Gas Pilot Light for Combustor and Recuperator #1 and 0.048 Natural Gas Pilot Light for Combustor and Recuperator #2 to 0.1 mmBtu on the Insignificant Activities list

12/14/2022	Modification	<ul style="list-style-type: none"> Add SN-114 (Emergency Vent for Thermal Combustor)
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6. REVIEWER’S NOTES:

EnviraPAC Monticello, LLC, located at 346 Firing Range Road, Monticello, Arkansas, produces powdered activated carbon form round wood. The facility has submitted a major modification to:

- Change the annual material throughput from 333,333 tons per year to 78,752 tons per year.
- Add SN-114 (Emergency Vent for Thermal Combustor)

Permitted emissions are decreasing by 3.1 tpy PM, 1.0 tpy PM₁₀, 3.7 tpy SO₂, 5.6 tpy VOC, 5.5 tpy CO, and 28.2 tpy NO_x.

7. COMPLIANCE STATUS:

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

Facility has a CAO w/r/t existing sources and the dust management plan. Reference document C00013O8.xml

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)
113	All	ZZZZ and JJJJ

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: N/A
- 12. COMPLIANCE ASSURANCE MONITORING (CAM) – TITLE V PERMITS ONLY: N/A

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/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	0.00918	Y

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: The facility is not a source of 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
101	EPA Region 10 May 8, 2004 Memo	PM= 0.024 lb/ton PM ₁₀ =0.012 lb/ton	None		78,752 tpy of green wood chips
102	ADEQ August 22, 2003 Memo	PM= 0.0004 lb/ton PM ₁₀ = 10% of PM	None		78,752 tpy of green wood chips
103	ADEQ August 22, 2003 Memo	PM= 0.0008 lb/ton PM ₁₀ = 10% of PM	None		78,752 tpy of green wood chips
105a&b	AP-42	All lb/1000 gal PM/PM ₁₀ – 0.7 SO ₂ -1.5 VOC-1 CO-7.5 NO _x -13	Cyclone	90%	78,752 tpy of wood chips
108	Stack Test	PM/ PM ₁₀ = 6.8E-3 lb/MMBtu SO ₂ = 9.3E-3 lb/MMBtu VOC= 0.01 lb/MMBtu CO= 0.01 lb/MMBtu NO _x = 7.38E-2 lb/MMBtu	Flue Gas Analyzer	N/A	128.5 MMBtu/hr 8,760 hr/yr
106a&b	Stack Test	PM/ PM ₁₀ = 6.8E-3 lb/MMBtu SO ₂ = 9.3E-3 lb/MMBtu VOC= 0.01 lb/MMBtu	Flue Gas Analyzer	N/A	2.3 MBtu/hr 8,760 hours

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments
		CO= 0.01 lb/MMBtu NO _x = 7.38E-2 lb/MMBtu			
107	AP-42	All lb/1000 gal PM/PM ₁₀ – 0.7 SO ₂ -1.5 VOC-1 CO-7.5 NO _x -13			
104	Memo/AP-42	0.0008lb/ton of green chips			
110a&b, 111, 112	DEQ standard	0.01 grains/DSCF			
113	Manufacture Certification				
109	AP-42	0.003 lb/ton of material			
114	Manufacture Certification	Uncontrolled VOC emission rate = 62 lb/hr	Thermal Combustor	Assumed 99% Control	All other criteria pollutant emissions are accounted for in SN-07/108

16. TESTING REQUIREMENTS:

The permit requires testing of the following sources.

SN	Pollutants	Test Method	Test Interval	Justification
108	NO _x , CO, VOC	EPA 7E, EPA 10, EPA 25A	Initial	19.702 and/or 18.1002

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)
108	Temp	Temp controller/thermocouple	Continuous	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)
Facility	Green wood chips	78,752 tpy	Monthly	N
Facility	Propane	312,000 gal/yr	Monthly	N
07	Temperature	1,562 °F Minimum	Daily	N

19. OPACITY:

SN	Opacity	Justification for limit	Compliance Mechanism
101-103, 109, 113, 114	20%	Reg.19.503	Observation
105a-108, 110a-112	5%	Reg.18.501	Observation

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
Diesel Storage Tank (500 gallons)	A-3							
2MMBtu Natural Gas Pilot Light for Carbonization reactor #1	A-1	0.07	0.005	0.05	0.8	0.9	0.004	0.004
2MMBtu Natural Gas	A-1	0.07	0.005	0.05	0.8	0.9	0.004	0.004

Pilot Light for Carbonization reactor #2								
0.1 MMBtu Natural Gas Pilot Light for Combustor and Recuperator #1	A-1	0.003	0.0003	0.002	0.036	0.043	8.11E-04	8.11E-04
0.1 MMBtu Natural Gas Pilot Light for Combustor and Recuperator #2	A-1	0.003	0.0003	0.002	0.036	0.043	8.11E-04	8.11E-04
Carbon Storage Silo #1 (Closed Loop Vent)	A-13							
Carbon Storage Silo #2 (Closed Loop Vent)	A-13							
Carbon Surge Silo (Closed Loop Vent)	A-13							
Carbonizer Feed Bin Vent	A-13							

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 #
2361-AR-2

APPENDIX A – EMISSION CHANGES AND FEE CALCULATION

Fee Calculation for Minor Source

Revised 03-11-16

Facility Name:
 Permit Number:
 AFIN:

			Old Permit	New Permit
\$/ton factor	27.27	Permit Predominant Air Contaminant	72.18	43.9
Minimum Fee \$	400	Net Predominant Air Contaminant Increase	-28.28	
Minimum Initial Fee \$	500			
		Permit Fee \$	400	
Check if Administrative Amendment <input type="checkbox"/>		Annual Chargeable Emissions (tpy)	43.9	

Pollutant (tpy)	Old Permit	New Permit	Change
PM	15.55	12.4	-3.15
PM ₁₀	11.87	10.8	-1.07
PM _{2.5}	0	0	0
SO ₂	9.14	5.4	-3.74
VOC	8.76	3.1	-5.66
CO	18.9	13.4	-5.5
NO _x	72.18	43.9	-28.28