

FEB - 1 2017

J. Todd Stewart, Chief Operating Officer EnviraPAC Monticello, LLC 215 Cumberland Street Kingsport, TN 37660

Dear Mr. Stewart:

The enclosed Permit No. 2361-AR-1 is your authority to construct, operate, and maintain the equipment and/or control apparatus as set forth in your application initially received on 11/4/2016.

After considering the facts and requirements of A.C.A. §8-4-101 et seq. as referenced by §8-4-304, and implementing regulations, I have determined that Permit No. 2361-AR-1 for the construction and operation of equipment at EnviraPAC Monticello, LLC shall be issued and effective on the date specified in the permit, unless a Commission review has been properly requested under Arkansas Department of Pollution Control & Ecology Commission's Administrative Procedures, Regulation 8, within thirty (30) days after service of this decision.

The applicant or permittee and any other person submitting public comments on the record may request an adjudicatory hearing and Commission review of the final permitting decisions as provided under Chapter Six of Regulation No. 8, Administrative Procedures, Arkansas Pollution Control and Ecology Commission. Such a request shall be in the form and manner required by Regulation 8.603, including filing a written Request for Hearing with the APC&E Commission Secretary at 101 E. Capitol Ave., Suite 205, Little Rock, Arkansas 72201. If you have any questions about filing the request, please call the Commission at 501-682-7890.

Sincerely,

Stuart Spencer Associate Director, Office of Air Quality

Enclosure: Final Permit

ADEQ MINOR SOURCE AIR PERMIT

Permit No.: 2361-AR-1

IS ISSUED TO:

EnviraPAC Monticello, LLC 346 Firing Range Road Monticello, AR 71655 Drew County AFIN: 22-00392

THIS PERMIT IS THE ABOVE REFERENCED PERMITTEE'S AUTHORITY TO CONSTRUCT, MODIFY, OPERATE, AND/OR MAINTAIN THE EQUIPMENT AND/OR FACILITY IN THE MANNER AS SET FORTH IN THE DEPARTMENT'S MINOR SOURCE AIR PERMIT AND THE APPLICATION. THIS PERMIT IS ISSUED PURSUANT TO THE PROVISIONS OF THE ARKANSAS WATER AND AIR POLLUTION CONTROL ACT (ARK. CODE ANN. § 8-4-101 *ET SEQ*.) AND THE REGULATIONS PROMULGATED THEREUNDER, AND IS SUBJECT TO ALL LIMITS AND CONDITIONS CONTAINED HEREIN.

Signed:

Stuart Spencer Associate Director, Office of Air Quality

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Date

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List of Acronyms and Abbreviations

| Ark. Code Ann. | Arkansas Code Annotated |
|---------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|
| AFIN | ADEQ Facility Identification Number |
| C.F.R. | Code of Federal Regulations |
| СО | Carbon Monoxide |
| HAP | Hazardous Air Pollutant |
| lb/hr | Pound Per Hour |
| No. | Number |
| NO _x | Nitrogen Oxide |
| PM | Particulate Matter |
| PM_{10} | Particulate Matter Smaller Than Ten Microns |
| SO_2 | Sulfur Dioxide |
| Тру | Tons Per Year |
| UTM | Universal Transverse Mercator |
| VOC | Volatile Organic Compound |
| PM ₁₀ SO ₂ Tpy UTM | Particulate Matter Smaller Than Ten Microns Sulfur Dioxide Tons Per Year Universal Transverse Mercator |

Section I: FACILITY INFORMATION

| PERMITTEE: | EnviraPAC Monticello, LLC |
|----------------------|-----------------------------------------------|
| AFIN: | 22-00392 |
| PERMIT NUMBER: | 2361-AR-1 |
| FACILITY ADDRESS: | 346 Firing Range Road Monticello, AR 71655 |
| MAILING ADDRESS: | 215 Cumberland Street Kingsport, TN 37660 |
| | |
| COUNTY: | Drew County |
| CONTACT NAME: | J. Todd Stewart |
| CONTACT POSITION: | Chief Operating Officer |
| TELEPHONE NUMBER: | (423) 246-2222 |
| REVIEWING ENGINEER: | Franck Houenou |
| UTM North South (Y): | Zone 15: 3719891.04 m |
| | 7 15 (10(05.07 |

UTM East West (X): Zone 15: 613695.27 m

Section II: INTRODUCTION

Summary of Permit Activity

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

- Lower the heat input capacity for the thermal combustor SN-07;
- Add steam generator as source SN-22;
- Add 5 combustors and recuperators as sources SN-23 through SN-27; and
- Add a powdered activation carbon halogenation process as source SN-28.

The total annual permitted emission rates will increase by 0.2 tpy PM/PM₁₀ and 0.1 tpy SO₂.

Process Description

Feedstock round wood is received in a wood yard after which it is chipped (SN-01) and sent to a chip screen and rechipper. From the chip screen the chips are stacked, stored (SN-02), placed in a hopper (SN-03), and fed from a feed line to two rotary dryers (SN-04 and SN-05). One rotary dryer and rotary dryer cyclone is used as a standby unit (SN-06). The chips entering the dryer are at about 50% moisture. The quantity of round wood feedstock and chips required can change with moisture content of the round wood and chips.

Dried chips are fed into two dryer cyclones and into one of five carbonization reactors. Dryer cyclone off gases are ducted to over five carbonization cyclones which each have a combustor and recuperator (SN-23 to SN-27). Flue gas from the carbonization cyclones is ducted to the thermal combustor to eliminate VOC and related emissions. The thermal combustor off gases are ducted to the steam generator (SN-22). Carbonized material at about 0% moisture is fed to one of five activation reactors. Material from the activation reactors is transferred to one of three grinders that grind the material. The ground material is transported by enclosed conveyor to three powdered activated carbon (PAC) storage silos (SN-19 to SN-20) and an enclosed load out hopper (SN-21) where a telescopic tube is used to load trucks.

Up to 100% of the PAC can be produced and stored in the Halogenation Surge Silo. When all systems are prepared for operation, an electronically activated orifice valve (slide gate) is opened beneath the surge silo.

The PAC exits the silo and enters a VFD controlled tubular drag conveyor. The conveyor is a loop and drags the PAC overtop an electronically controlled gate. When the gate is open, the PAC enters the Mixer Feed Bin. When the gate is closed, the PAC continues through the conveyance loop.

A near-infrared (NIR) moisture sensor will be utilized to determine the starting moisture content of the PAC inside the mixer feed bin. The PAC inside the mixer feed bin will discharge, motivated by a vibratory bin activator, through an electronically actuated orifice valve into a loss-in-weight feeder.

A bromide solution (either NaBr or CaBr, diluted in water to aqueous halogen brine in known concentrations) is pumped from the storage tanks via diaphragm pump, through a Coriolis flow meter, into the mixer with the PAC. The flow rate is controlled with a 4-20mA signal and will be modulated so that the flow meter correlates to the appropriate ratio with respect to the PAC Weigh Feeder rate.

PAC and bromide are blended at a high speed in the Continuous Mixer and discharged into a second tubular drag conveyor which brings the material up into the Batch Dryer Feed Bin, where it is stored until there is 1) enough material to properly fill the batch dryer and 2) no current batches drying. When the dryer is ready to receive material the orifice valve at the bottom of the bin opens and a vibratory bin activator turns on to aid in rapid discharge of its contents.

The wet, halogenated PAC enters the Batch Dryer, the above orifice valve closes and load cells measure the weight of the material. Hot oil from a separate electric oil Heater is pumped through a jacket around the dryer while a shaft –mounted plow inside agitates the material. The water vapor is evacuated from the dryer through a filter as the PAC is dried at a set temperature for a set amount of time, experimentally determined to achieve the desired moisture content. The load cells will re-weigh the material at the end of the run to determine if the appropriate loss of water mass has occurred. If the anticipated weight loss is met, the discharge orifice valve is opened and the dried halogenated PAC exits the dryer into a third tubular drag conveyor and brought to the Pneumatic Feed Bin. If for some reason, the anticipated weight loss is not met, the dryer will continue operating until conditions are met and an error will be sent to the operator.

The Pneumatic Feed Bin is sized to receive the output of more than two dryers simultaneously in flood fashion. It is from here discharged, with the aid of a vibratory bin activator, through a service orifice gate and metered via rotary air lock into the Pneumatic System's Feeder. Once through the feeder the dried halogenated PAC will be pneumatically conveyed into the BFAC Storage Silo (SN-28) and await discharge.

Gases from the carbonization reactors pass through cyclones and baghouses and are ducted to the dryers and activators where they will be burned for energy, with the excess going to the thermal combustor. The gases from the dryers and activators pass through cyclones and baghouses and are ducted to the thermal combustor. The thermal combustor incinerates excess gases and produces heat to boil steam for activation. The dryers, carbonizers, and activators have supplemented ignition burners (SN-8 to SN-17) which can be used during system start-up. All burners including the dryers, activators, and the thermal combustor have supplemental 100,000 BTU/hr pilot burners for system safety. All process gases exit the system through the thermal combustor.

Regulations

The following table contains the regulations applicable to this permit.

| Regulations |
|--------------------------------------------------------------------------------------------------------------------------|
| Arkansas Air Pollution Control Code, Regulation 18, effective March 14, 2016 |
| Regulations of the Arkansas Plan of Implementation for Air Pollution Control, Regulation 19, effective March 14, 2016 |

Total Allowable Emissions

The following table is a summary of emissions from the facility. This table, in itself, is not an enforceable condition of the permit.

| TOTAL ALLOWABLE EMISSIONS | | | |
|---------------------------|--------|----------|--|
| Pollutant | Emissi | on Rates | |
| Fonutant | lb/hr | tpy | |
| PM | 28.1 | 63.3 | |
| PM10 | 6.3 | 14.0 | |
| SO ₂ | 3.0 | 7.8 | |
| VOC | 4.2 | 8.2 | |
| СО | 12.9 | 8.7 | |
| NOx | 30.3 | 54.4 | |

Section III: PERMIT HISTORY

On August 8, 2014, Permit #2326-A was issued to the facility. Before the facility started construction, it moved its location across the road and requested a modification. Due to the new location, Permit #2361-A is the new permit for this facility.

On May 24, 2016, Permit #2361-A was issued to the facility. The facility submitted an application for an initial minor source air permit. The total annual permitted emission rate limits were as follows: 63.1 tpy PM, 13.8 tpy PM_{10} , 7.7 tpy SO₂, 8.2 tpy VOC, 8.7 tpy CO and 54.4 tpy NO_X.

Section IV: EMISSION UNIT INFORMATION

Specific Conditions

1. The permittee shall not exceed the emission rates set forth in the following table. [Reg.19.501 *et seq.* and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

| SN | Description | Pollutant | lb/hr | tpy |
|----|---------------------------------------------------------------------------|--------------|-------|------------------|
| 01 | Chipper | PM 10 | 0.6 | 2.0 |
| 02 | Green Chip Storage | PM 10 | 0.1 | 0.1 |
| 03 | Green Chip Loading | PM 10 | 0.1 | 0.1 |
| 04 | 40 HP Rotary Dryer #1 Cyclone | PM 10 | 0.6 | 1.8 |
| 05 | 40 HP Rotary Dryer #2 Cyclone | PM 10 | 0.6 | 1.8 |
| 06 | 40 HP Rotary Dryer #3 Cyclone (Standby Unit) | PM 10 | 0.6 | 1.8 |
| | | PM 10 | 0.1 | 1.1^{a} |
| | 2 MMPtu/hr Propose Carbonization Pagator Ignitar | SO_2 | 0.1 | 1.1^{a} |
| 08 | 3 MMBtu/hr Propane Carbonization Reactor Igniter | VOC | 0.1 | 1.1^{a} |
| | Burner Emissions Only | CO | 0.3 | 1.6^{a} |
| | | NOx | 0.5 | 2.6 ^a |
| | | PM 10 | 0.1 | 1.1 ^a |
| | 2 MMPtu/hr Propaga Carbonization Pagator Ignitar | SO_2 | 0.1 | 1.1 ^a |
| 09 | 3 MMBtu/hr Propane Carbonization Reactor Igniter Burner Emissions Only | VOC | 0.1 | 1.1 ^a |
| | | CO | 0.3 | 1.6^{a} |
| | | NOx | 0.5 | 2.6 ^a |
| | | PM 10 | 0.1 | 1.1 ^a |
| | 3 MMBtu/hr Propane Carbonization Reactor Igniter | SO_2 | 0.1 | 1.1 ^a |
| 10 | Burner Emissions Only | VOC | 0.1 | 1.1 ^a |
| | Burner Emissions Only | CO | 0.3 | 1.6 ^a |
| | | NOx | 0.5 | 2.6 ^a |
| | | PM 10 | 0.1 | 1.1 ^a |
| | 3 MMBtu/hr Propane Carbonization Reactor Igniter | SO_2 | 0.1 | 1.1 ^a |
| 11 | Burner Emissions Only | VOC | 0.1 | 1.1 ^a |
| | Durner Emissions Only | CO | 0.3 | 1.6 ^ª |
| | | NOx | 0.5 | 2.6 ^a |
| | | PM 10 | 0.1 | 1.1 ^a |
| | 3 MMBtu/hr Propane Carbonization Reactor Igniter Burner Emissions Only | SO_2 | 0.1 | 1.1 ^a |
| 12 | | VOC | 0.1 | 1.1 ^a |
| | Durner Emissions Only | CO | 0.3 | 1.6 ^a |
| | | NOx | 0.5 | 2.6 ^a |

| SN | Description | Pollutant | lb/hr | tpy |
|----|-------------------------------------------------------------------------|--------------------|-------|------------------|
| | | PM 10 | 0.2 | 1.1 ^a |
| | 10 MMPtu/hr Propage Activation Pagator Ignitar | SO_2 | 0.1 | 1.1 ^a |
| 13 | 19 MMBtu/hr Propane Activation Reactor Igniter Burner Emissions Only | VOC | 0.3 | 1.1 ^a |
| | Burner Emissions Only | CO | 1.6 | 1.6 ^ª |
| | | NOx | 2.7 | 2.6 ^a |
| | | \mathbf{PM}_{10} | 0.2 | 1.1^{a} |
| | 19 MMBtu/hr Propane Activation Reactor Igniter | SO_2 | 0.1 | 1.1^{a} |
| 14 | Burner Emissions Only | VOC | 0.3 | 1.1 ^a |
| | Durner Emissions Only | CO | 1.6 | 1.6 ^a |
| | | NOx | 2.7 | 2.6 ^a |
| | | \mathbf{PM}_{10} | 0.2 | 1.1 ^a |
| | 19 MMBtu/hr Propane Activation Reactor Igniter | SO_2 | 0.1 | 1.1 ^a |
| 15 | Burner Emissions Only | VOC | 0.3 | 1.1 ^a |
| | Durner Emissions Only | CO | 1.6 | 1.6 ^a |
| | | NOx | 2.7 | 2.6 ^a |
| | | \mathbf{PM}_{10} | 0.2 | 1.1 ^a |
| | 19 MMBtu/hr Propane Activation Reactor Igniter | SO_2 | 0.1 | 1.1 ^a |
| 16 | Burner Emissions Only | VOC | 0.3 | 1.1 ^a |
| | Durner Emissions Only | CO | 1.6 | 1.6 ^a |
| | | NOx | 2.7 | 2.6 ^a |
| | | \mathbf{PM}_{10} | 0.2 | 1.1 ^a |
| | 19 MMBtu/hr Propane Activation Reactor Igniter | SO_2 | 0.1 | 1.1 ^a |
| 17 | Burner Emissions Only | VOC | 0.3 | 1.1 ^a |
| | | СО | 1.6 | 1.6 ^a |
| | | NOx | 2.7 | 2.6 ^a |
| | | PM 10 | 0.2 | 1.1 ^a |
| | 16 MMBtu/hr Propane Thermal Combustor Pilot | SO ₂ | 0.1 | 1.1 ^a |
| 18 | Burner Emissions Only | VOC | 0.2 | 1.1 ^a |
| | ······································ | CO | 1.4 | 1.6^{a} |
| 10 | | NOx | 2.3 | 2.6^{a} |
| 19 | Powdered Activated Carbon (PAC) Surge Silo | PM10 | 0.1 | 0.1 |
| 20 | Powdered Activated Carbon (PAC) Surge Silo | PM10 | 0.1 | 0.1 |
| 21 | Powdered Activated Carbon (PAC) Loadout Station | PM10 | 0.1 | 0.1 |
| | | PM10 | 0.1 | 0.4^{b} |
| | | SO_2 | 0.1 | 0.5^{b} |
| 23 | Combustor and Recuperator #1–2.3 MMBtu/hr | VOC | 0.1 | 0.5^{b} |
| | | CO | 0.1 | 0.5^{b} |
| | | NOx | 0.2 | 3.7^{b} |
| | | PM10 | 0.1 | 0.4^{b} |
| | Combustor and Recuperator #2–2.3 MMBtu/hr | SO_2 | 0.1 | 0.5^{b} |
| 24 | | VOC | 0.1 | 0.5^{b} |
| | | CO | 0.1 | 0.5^{b} |
| | | NOx | 0.2 | 3.7 ^b |

| SN | Description | Pollutant | lb/hr | tpy |
|----|-------------------------------------------|--------------------|-------------------|-------------------|
| | | PM 10 | 0.1 | 0.4 ^b |
| | | SO_2 | 0.1 | 0.5 ^b |
| 25 | Combustor and Recuperator #3–2.3 MMBtu/hr | VOC | 0.1 | 0.5 ^b |
| | | CO | 0.1 | 0.5^{b}_{1} |
| | | NOx | 0.2 | 3.7 ^b |
| | | PM 10 | 0.1 | 0.4 ^b |
| | | SO_2 | 0.1 | $0.5^{b}_{}$ |
| 26 | Combustor and Recuperator #4-2.3 MMBtu/hr | VOC | 0.1 | $0.5^{b}_{}$ |
| | | CO | 0.1 | 0.5^{b}_{1} |
| | | NOx | 0.2 | 3.7 ^b |
| | | \mathbf{PM}_{10} | 0.1 | 0.4 ^b |
| | | SO_2 | 0.1 | 0.5 ^b |
| 27 | Combustor and Recuperator #5–2.3 MMBtu/hr | VOC | 0.1 | 0.5^{b} |
| | | CO | 0.1 | 0.5 ^b |
| | | NOx | 0.2 | 3.7 ^b |
| 28 | Halogenation Process | \mathbf{PM}_{10} | 0.1 | 0.1 |
| 07 | 128.5 MMBtu/hr Propane Thermal Combustor | PM 10 | 1.1 ^c | 4.5 ^c |
| | | SO_2 | 1.4 ^c | 6.2 ^c |
| 22 | Steam Generator – 20 MMBtu/hr | VOC | 1.5 ^c | 6.6 ^c |
| 22 | | CO | 1.5° | 6.6 ^c |
| | | NOx | 11.0 ^c | 48.1 ^c |

^a: Annual emission limits are combined for SN-08 through SN-18 based on Specific Condition #7.

^b: Annual emission limits are combined for SN-23 through SN-27.

^c: SN-22 acts merely as a big heat exchanger and does not combust any fuel. SN-07 and SN-22 both deal with the same post-combustion (exhaust) gases generated in the thermal combustor SN-07. If SN-22 is not turned on, all exhaust would otherwise exit from SN-07.

2. The permittee shall not exceed the emission rates set forth in the following table. [Reg.18.801 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

| SN | Description | Pollutant | lb/hr | tpy |
|----|---------------------------------------------------------------------------|-----------|-------|------------------|
| 01 | Chipper | PM | 1.2 | 4.0 |
| 02 | Green Chip Storage | PM | 0.1 | 0.1 |
| 03 | Green Chip Loading | PM | 0.1 | 0.2 |
| 04 | 40 HP Rotary Dryer #1 Cyclone | PM | 6.0 | 17.5 |
| 05 | 40 HP Rotary Dryer #2 Cyclone | PM | 6.0 | 17.5 |
| 06 | 40 HP Rotary Dryer #3 Cyclone (Standby Unit) | PM | 6.0 | 17.5 |
| 08 | 3 MMBtu/hr Propane Carbonization Reactor Igniter Burner Emissions Only | РМ | 1.1 | 1.1 ^a |
| 09 | 3 MMBtu/hr Propane Carbonization Reactor Igniter Burner Emissions Only | РМ | 1.1 | 1.1 ^a |

| SN | Description | Pollutant | lb/hr | tpy |
|----|---------------------------------------------------------------------------|-----------|------------------|------------------|
| 10 | 3 MMBtu/hr Propane Carbonization Reactor Igniter Burner Emissions Only | PM | 1.1 | 1.1 ^a |
| 11 | 3 MMBtu/hr Propane Carbonization Reactor Igniter Burner Emissions Only | РМ | 1.1 | 1.1 ^a |
| 12 | 3 MMBtu/hr Propane Carbonization Reactor Igniter Burner Emissions Only | РМ | 1.1 | 1.1 ^a |
| 13 | 19 MMBtu/hr Propane Activation Reactor Igniter Burner Emissions Only | РМ | 0.2 | 1.1 ^a |
| 14 | 19 MMBtu/hr Propane Activation Reactor Igniter Burner Emissions Only | РМ | 0.2 | 1.1^{a} |
| 15 | 19 MMBtu/hr Propane Activation Reactor Igniter Burner Emissions Only | РМ | 0.2 | 1.1 ^a |
| 16 | 19 MMBtu/hr Propane Activation Reactor Igniter Burner Emissions Only | РМ | 0.2 | 1.1 ^a |
| 17 | 19 MMBtu/hr Propane Activation Reactor Igniter Burner Emissions Only | РМ | 0.2 | 1.1 ^a |
| 18 | 16 MMBtu/hr Propane Thermal Combustor Pilot Burner Emissions Only | PM | 0.2 | 1.1 ^a |
| 19 | Powdered Activated Carbon (PAC) Surge Silo | PM | 0.1 | 0.1 |
| 20 | Powdered Activated Carbon (PAC) Surge Silo | PM | 0.1 | 0.2 |
| 21 | Powdered Activated Carbon (PAC) Loadout Station | PM | 0.1 | 0.1 |
| 23 | Combustor and Recuperator #1 – 2.3 MMBtu/hr | PM | 0.1 | 0.4^{b} |
| 24 | Combustor and Recuperator #2 – 2.3 MMBtu/hr | PM | 0.1 | 0.4 ^b |
| 25 | Combustor and Recuperator #3 – 2.3 MMBtu/hr | PM | 0.1 | 0.4 ^b |
| 26 | Combustor and Recuperator #4 – 2.3 MMBtu/hr | PM | 0.1 | 0.4 ^b |
| 27 | Combustor and Recuperator #5 – 2.3 MMBtu/hr | PM | 0.1 | 0.4^{b} |
| 28 | Halogenation Process | PM | 0.1 | 0.1 |
| 07 | 128.5 MMBtu/hr Propane Thermal Combustor | | - | 2 |
| 22 | Steam Generator – 20 MMBtu/hr | PM | 1.1 ^c | 4.5 ^c |

 ^a: Annual emission limits are combined for SN-08 through SN-18 based on Specific Condition #7.
^b: Annual emission limits are combined for SN-23 through SN-27.
^c: SN-22 acts merely as a big heat exchanger and does not combust any fuel. SN-07 and SN-22 both deal with the same post-combustion (exhaust) gases generated in the thermal combustor SN-07. If SN-22 is not turned on, all exhaust would otherwise exit from SN-07

3. Visible emissions may not exceed the limits specified in the following table of this permit as measured by EPA Reference Method 9. [Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

| SN | Limit | Regulatory Citation |
|-------------------------------|-------|---------------------|
| 01-04, 22, 23-27 and 28 | 20% | Reg.19.503 |
| 05-18 | 5% | Reg.18.501 |

- 4. The permittee shall not cause or permit the emission of air contaminants, including odors or water vapor and including an air contaminant whose emission is not otherwise prohibited by Regulation 18, if the emission of the air contaminant constitutes air pollution within the meaning of Ark. Code Ann. § 8-4-303. [Reg.18.801 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
- 5. The permittee shall not conduct operations in such a manner as to unnecessarily cause air contaminants and other pollutants to become airborne. [Reg.18.901 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
- 6. The permittee shall not exceed a throughput of 333,333 tons of green wood chips at facility per rolling 12 month period. [Reg.19.705 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. § 8-4-304 and 8-4-311]
- 7. The permittee shall be limited to using propane at the facility. The permittee shall not exceed 68,840 gallons of propane at facility per rolling 12 month period. [Reg.19.705 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
- 8. The permittee shall maintain monthly records to demonstrate compliance with Specific Condition #6 and #7. The permittee shall update these records by the fifteenth day of the month following the month to which the records pertain. The twelve month rolling totals and each individual month's data shall be maintained on-site and made available to Department personnel upon request. [Reg.19.705 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
- 9. The permittee shall test SN-07 for NO_X using EPA Method 7E, for CO using EPA Method 10, and VOC using EPA Method 25A. This test shall take place within sixty (60) days of achieving the earlier of the maximum production rate after Phase II construction or 24 months following initial startup of Phase I in accordance with General Condition #7. Phase I consists of SN-01 through SN-09,

SN-13, SN-14, SN-18, SN-19, SN-20, and SN-21. Phase II consists of SN-11, 12, 15, 16, and 17. Testing shall be conducted with the source operating at least at 90% of its permitted capacity. Emission testing results shall be extrapolated to correlate with 100% of the permitted capacity to demonstrate compliance. Failure to test within this range shall limit the permittee to operating within 10% above the tested rate. The permittee shall measure the operation rate during the test and if testing is conducted below 90% of the permitted capacity, records shall be maintained at all times to demonstrate that the source does not exceed operation at 10% above the tested rate. [Reg.19.702 and/or Reg.18.1002 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

- The permittee shall maintain the thermal combustor (SN-07) at a minimum of 1,562 ^OF as long as the dryers, combustors, and reactors are in operation. [Reg.19.705 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. § 8-4-304 and 8-4-311]
- 11. To demonstrate compliance with Specific Condition #10, the permittee shall set and maintain a temperature controller connected to the thermocouple located in the exit of the combustion chamber of the thermal combustor and shall operate a continuous chart recorder to record the measured temperature. The permittee shall update these records by the fifteenth day of the month following the month to which the records pertain. The twelve month rolling totals and each individual month's data shall be maintained on-site and made available to Department personnel upon request. [Reg.19.705 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
- 12. The permittee shall only use wood gas, generated in the process by the carbonizers and activators, as the fuel for SN-22, SN-23 through SN-27 and SN-28. [Reg.19.705 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

Section V: INSIGNIFICANT ACTIVITIES

The Department deems the following types of activities or emissions as insignificant on the basis of size, emission rate, production rate, or activity in accordance with Group A of the Insignificant Activities list found in Regulation 18 and Regulation 19 Appendix A. Group B insignificant activities may be listed but are not required to be listed in permits. Insignificant activity emission determinations rely upon the information submitted by the permittee in an application dated November 4, 2016. [Reg.19.408 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

| Description | Category |
|-----------------------------------|----------|
| Diesel Storage Tank (500 gallons) | A-3 |

Section VI: GENERAL CONDITIONS

- Any terms or conditions included in this permit that specify and reference Arkansas Pollution Control & Ecology Commission Regulation 18 or the Arkansas Water and Air Pollution Control Act (Ark. Code Ann. § 8-4-101 *et seq.*) as the sole origin of and authority for the terms or conditions are not required under the Clean Air Act or any of its applicable requirements, and are not federally enforceable under the Clean Air Act. Arkansas Pollution Control & Ecology Commission Regulation 18 was adopted pursuant to the Arkansas Water and Air Pollution Control Act (Ark. Code Ann. § 8-4-101 *et seq.*). Any terms or conditions included in this permit that specify and reference Arkansas Pollution Control & Ecology Commission Regulation 18 or the Arkansas Water and Air Pollution Control & Ecology Commission Regulation 18 or the Arkansas Water and Air Pollution Control Act (Ark. Code Ann. § 8-4-101 *et seq.*) as the origin of and authority for the terms or conditions are enforceable under this Arkansas statute.
- 2. This permit does not relieve the owner or operator of the equipment and/or the facility from compliance with all applicable provisions of the Arkansas Water and Air Pollution Control Act and the regulations promulgated under the Act. [Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
- 3. The permittee shall notify the Department in writing within thirty (30) days after commencement of construction, completion of construction, first operation of equipment and/or facility, and first attainment of the equipment and/or facility target production rate. [Reg.19.704 and/or Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. § 8-4-304 and 8-4-311]
- 4. Construction or modification must commence within eighteen (18) months from the date of permit issuance. [Reg.19.410(B) and/or Reg.18.309(B) and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. § 8-4-304 and 8-4-311]
- 5. The permittee must keep records for five years to enable the Department to determine compliance with the terms of this permit such as hours of operation, throughput, upset conditions, and continuous monitoring data. The Department may use the records, at the discretion of the Department, to determine compliance with the conditions of the permit. [Reg.19.705 and/or Reg.18.1004 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. § 8-4-304 and 8-4-311]
- 6. A responsible official must certify any reports required by any condition contained in this permit and submit any reports to the Department at the address below. [Reg.19.705 and/or Reg.18.1004 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. § 8-4-304 and 8-4-311]

Arkansas Department of Environmental Quality Air Division ATTN: Compliance Inspector Supervisor

> 5301 Northshore Drive North Little Rock, AR 72118-5317

- 7. The permittee shall test any equipment scheduled for testing, unless stated in the Specific Conditions of this permit or by any federally regulated requirements, within the following time frames: (1) newly constructed or modified equipment within sixty (60) days of achieving the maximum production rate, but no later than 180 days after initial start up of the permitted source or (2) existing equipment already operating according to the time frames set forth by the Department. The permittee must notify the Department of the scheduled date of compliance testing at least fifteen (15) business days in advance of such test. The permittee must submit compliance test results to the Department within sixty (60) calendar days after the completion of testing. [Reg.19.702 and/or Reg.18.1002 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
- 8. The permittee shall provide: [Reg.19.702 and/or Reg.18.1002 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
 - a. Sampling ports adequate for applicable test methods;
 - b. Safe sampling platforms;
 - c. Safe access to sampling platforms; and
 - d. Utilities for sampling and testing equipment
- 9. The permittee shall operate equipment, control apparatus and emission monitoring equipment within their design limitations. The permittee shall maintain in good condition at all times equipment, control apparatus and emission monitoring equipment. [Reg.19.303 and/or Reg.18.1104 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
- 10. If the permittee exceeds an emission limit established by this permit, the permittee will be deemed in violation of said permit and will be subject to enforcement action. The Department may forego enforcement action for emissions exceeding any limits established by this permit provided the following requirements are met: [Reg.19.601 and/or Reg.18.1101 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
 - a. The permittee demonstrates to the satisfaction of the Department that the emissions resulted from an equipment malfunction or upset and are not the result of negligence or improper maintenance, and the permittee took all reasonable measures to immediately minimize or eliminate the excess emissions.
 - b. The permittee reports the occurrence or upset or breakdown of equipment (by telephone, facsimile, or overnight delivery) to the Department by the end of the next business day after the occurrence or the discovery of the occurrence.
 - c. The permittee must submit to the Department, within five business days after the occurrence or the discovery of the occurrence, a full, written report of such occurrence, including a statement of all known causes and of the scheduling and

nature of the actions to be taken to minimize or eliminate future occurrences, including, but not limited to, action to reduce the frequency of occurrence of such conditions, to minimize the amount by which said limits are exceeded, and to reduce the length of time for which said limits are exceeded. If the information is included in the initial report, the information need not be submitted again.

- 11. The permittee shall allow representatives of the Department upon the presentation of credentials: [Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
 - a. To enter upon the permittee's premises, or other premises under the control of the permittee, where an air pollutant source is located or in which any records are required to be kept under the terms and conditions of this permit;
 - b. To have access to and copy any records required to be kept under the terms and conditions of this permit, or the Act;
 - c. To inspect any monitoring equipment or monitoring method required in this permit;
 - d. To sample any emission of pollutants; and
 - e. To perform an operation and maintenance inspection of the permitted source.
- 12. The Department issued this permit in reliance upon the statements and presentations made in the permit application. The Department has no responsibility for the adequacy or proper functioning of the equipment or control apparatus. [Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. § 8-4-304 and 8-4-311]
- 13. The Department may revoke or modify this permit when, in the judgment of the Department, such revocation or modification is necessary to comply with the applicable provisions of the Arkansas Water and Air Pollution Control Act and the regulations promulgated the Arkansas Water and Air Pollution Control Act. [Reg.19.410(A) and/or Reg.18.309(A) and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. § 8-4-304 and 8-4-311]
- 14. This permit may be transferred. An applicant for a transfer must submit a written request for transfer of the permit on a form provided by the Department and submit the disclosure statement required by Arkansas Code Annotated §8-1-106 at least thirty (30) days in advance of the proposed transfer date. The permit will be automatically transferred to the new permittee unless the Department denies the request to transfer within thirty (30) days of the receipt of the disclosure statement. The Department may deny a transfer on the basis of the information revealed in the disclosure statement or other investigation or, deliberate falsification or omission of relevant information. [Reg.19.407(B) and/or Reg.18.307(B) and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

- 15. This permit shall be available for inspection on the premises where the control apparatus is located. [Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. § 8-4-304 and 8-4-311]
- 16. This permit authorizes only those pollutant emitting activities addressed herein. [Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
- 17. This permit supersedes and voids all previously issued air permits for this facility. [Reg. 18 and/or Reg. 19 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. § 8-4-304 and 8-4-311]
- 18. The permittee must pay all permit fees in accordance with the procedures established in Regulation 9. [Ark. Code Ann. § 8-1-105(c)]
- 19. The permittee may request in writing and at least 15 days in advance of the deadline, an extension to any testing, compliance or other dates in this permit. No such extensions are authorized until the permittee receives written Department approval. The Department may grant such a request, at its discretion in the following circumstances:
 - a. Such an extension does not violate a federal requirement;
 - b. The permittee demonstrates the need for the extension; and
 - c. The permittee documents that all reasonable measures have been taken to meet the current deadline and documents reasons it cannot be met.

[Reg.18.314(A) and/or Reg.19.416(A), Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311, and 40 C.F.R. § 52 Subpart E]

- 20. The permittee may request in writing and at least 30 days in advance, temporary emissions and/or testing that would otherwise exceed an emission rate, throughput requirement, or other limit in this permit. No such activities are authorized until the permittee receives written Department approval. Any such emissions shall be included in the facilities total emissions and reported as such. The Department may grant such a request, at its discretion under the following conditions:
 - a. Such a request does not violate a federal requirement;
 - b. Such a request is temporary in nature;
 - c. Such a request will not result in a condition of air pollution;
 - d. The request contains such information necessary for the Department to evaluate the request, including but not limited to, quantification of such emissions and the date/time such emission will occur;
 - e. Such a request will result in increased emissions less than five tons of any individual criteria pollutant, one ton of any single HAP and 2.5 tons of total HAPs; and
 - f. The permittee maintains records of the dates and results of such temporary emissions/testing.

[Reg.18.314(B) and/or Reg.19.416(B), Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311, and 40 C.F.R. § 52 Subpart E]

- 21. The permittee may request in writing and at least 30 days in advance, an alternative to the specified monitoring in this permit. No such alternatives are authorized until the permittee receives written Department approval. The Department may grant such a request, at its discretion under the following conditions:
 - a. The request does not violate a federal requirement;
 - b. The request provides an equivalent or greater degree of actual monitoring to the current requirements; and
 - c. Any such request, if approved, is incorporated in the next permit modification application by the permittee.

[Reg.18.314(C) and/or Reg.19.416(C), Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311, and 40 C.F.R. § 52 Subpart E]

CERTIFICATE OF SERVICE

I, Cynthia Hook, hereby certify that a copy of this permit has been mailed by first class mail to

EnviraPAC Monticello, LLC, 215 Cumberland Street, Kingsport, TN, 37660, on this

1ST day of _____ tebruary , 2017. Cynthia Hook, ASIII, Office of Air Quality