

# ADEQ MINOR SOURCE AIR PERMIT

Permit No. : 684-AR-1

IS ISSUED TO:

Fiber Resources, Incorporated  
1609 Celia Road  
Pine Bluff, AR 71611  
Jefferson County  
AFIN: 35-00187

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. SEC. 8-4-101 *ET SEQ.*) AND THE REGULATIONS PROMULGATED THEREUNDER, AND IS SUBJECT TO ALL LIMITS AND CONDITIONS CONTAINED HEREIN.

Signed:

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Michael Bonds  
Chief, Air Division

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Date

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## List of Acronyms and Abbreviations

A.C.A.	Arkansas Code Annotated
AFIN	ADEQ Facility Identification Number
CFR	Code of Federal Regulations
CO	Carbon Monoxide
HAP	Hazardous Air Pollutant
lb/hr	Pound Per Hour
No.	Number
NO <sub>x</sub>	Nitrogen Oxide
PM	Particulate Matter
PM10	Particulate Matter Smaller Than Ten Microns
SO <sub>2</sub>	Sulfur Dioxide
Tpy	Tons Per Year
UTM	Universal Transverse Mercator
VOC	Volatile Organic Compound

Section I: FACILITY INFORMATION

PERMITTEE: Fiber Resources, Incorporated

AFIN: 35-00187

PERMIT NUMBER: 684-AR-1

FACILITY ADDRESS: 1609 Celia Road  
Pine Bluff, AR 71611

MAILING ADDRESS P.O. Box 8727  
Pine Bluff, AR 71611

COUNTY: Jefferson

CONTACT POSITION: W.R. Weaver

TELEPHONE NUMBER: (870) 535-1759

REVIEWING ENGINEER: Paula Parker

UTM North South (Y): 3787.3

UTM East West (X): 601.7

## **Section II: INTRODUCTION**

### **Summary of Permit Activity**

Fiber Resources, Inc., located at 1609 Celia Road, Pine Bluff, AR 71611, is a wood and paper recycling facility. The facility is modifying their current permit to update emission sources. Hourly and annual emissions have been quantified for all sources. Process limits corresponding to emission estimates have been added. Two new sources, Tub Grinders (SN-04 and SN-05) for paper recycling, were also added to the permit. Plantwide emissions are estimated to be 23.7 ton/yr PM, 23.4 ton/yr PM<sub>10</sub>, 8.9 ton/yr SO<sub>2</sub>, 1.5 ton/yr VOC, 14.8 ton/yr CO, and 55.4 ton/yr NO<sub>x</sub>.

### **Process Description**

#### **Waste Wood Receiving and Storage**

Dry wood waste is purchased from selected lumber processing facilities within the State of Arkansas. The wood waste has the following characteristics: 1) total moisture content less than 12%; 2) classified and separated as to hardwood (oak) and softwood (pine); 3) particle size ranges from saw kerf and shavings to 2" chips; 4) no contaminants (100% wood).

The dry wood waste is delivered to the facility in enclosed, self-unloading trailers. The wood waste is unloaded into any one of three storage sheds. These sheds are fully enclosed except for one side which is open for access. Woodwaste Receiving/Unloading (SN-01) generates particulate emissions by the unloading of woodwaste from the trucks, stacking of woodwaste in the sheds by a front end loader, and loading of woodwaste into the metering hoppers at each of the pelletizing lines.

The delivery trucks are scheduled to arrive during daylight hours, Monday through Friday. Fiber Resources purchases up to ten truck loads of this material per day.

#### **Wood Pelletizing Process**

A front end loader is used to retrieve the dry wood waste from one of the storage sheds. The loader then deposits the wood waste into the process receiving and metering hopper. The receiving and metering hopper is enclosed on all but one side to allow access. No air controls are utilized at this point.

The wood material is contained within sealed conveyors and process equipment once it is into the metering hopper. The pellet operation utilizes air control equipment, a high efficiency cyclone in line with an air filtering baghouse. The wood material is mechanically conveyed into a Hammer Mill. The wood is reduced to a consistent size. The Hammer Mill is vented into the air control system.

The hammer milled wood material is mechanically conveyed to a surge bin above the Pellet Mill. The wood material is metered out of the surge bin and into the Pellet Mill. Low pressure steam, water, and vegetable oil can be added in small percentages as required to optimize the pelleting process. The equipment is feed pellet mill technology adapted for use in the wood pellet industry. In the pelletizing process, the wood material is subjected to extreme pressure. The temperature of the wood is also increased through frictional resistance to the pressure as the wood is extruded through the pellet mill. The wood pellets break off in random lengths and are discharged from the pellet mill.

The hot wood pellets are conveyed to a pellet cooler. The hot pellets are distributed into the cooler and accumulated to a controlled level. Ambient air is then drawn into and through the hot pellets to cool them. This air is a controlled air system consisting of a high-efficiency cyclone and baghouse filter. The facility has three pelletizing lines. Line #1 processes softwood (pine), while Lines #2 and #3 process hardwoods (oak). The pelletizing lines are grouped under SN-02 as Wood Pelletizing Operations.

The cooled pellets are then discharged from the cooler. The wood pellets are then screened. The acceptable pellets are conveyed to a bulk pellet storage bin. The fines are screened out of the pellets and returned back to the receiving and metering hopper in order to be reprocessed.

### **Packaging of Wood Pellets**

The wood pellets are metered out of the bulk pellet storage bins. The pellets are then conveyed to a shaker screen. The acceptable pellets are then conveyed into a bagger bin. The fines from the shaker screen are mechanically returned to a dry storage shed and mixed back into the wood waste and reprocessed. The pellets in the bagger bin are weighed out in specific weights and deposited into poly bags which are heat sealed, stacked onto pallets, covered and stretch wrapped. The product is then stored or readied for shipment to a customer.

The shaker screen and bagging machinery is equipped with a dust collection system to ensure that the product is dust-free when packaged. The dust collection system is a bag house. The facility has two packaging lines. Line #1 processes softwood and Line #2 processes hardwood. The packaging lines are grouped under SN-03 as Wood Pellet Packaging Operations.

### **Paper Recycling Operations**

Waste paper is hauled into the facility in self unloading container trucks. Fiber Resources only processes post industrial waste paper. The waste paper is dumped onto an outdoor concrete pad and sorted by grade of paper.

Material which is too large to bale as received is shredded into hand sized pieces. A portable Tub Grinder is utilized to shred this material. The Tub Grinders (SN-04 and SN-05) are Morbark Shredding Systems Model 1300. The facility has two such diesel units, 750 HP and 800 HP. The grinder functions as a hammer mill with a rotating tub above for the continuous feed of material. Paper is loaded into the tub. Clean water is sprayed into the hammer mill discharge of the Tub Grinder to reduce and control the paper fibers.

The shredded paper is then discharged from the Tub Grinder onto an elevated conveyor. The conveyor discharges the paper into a surge hopper above the baler. The baler compacts the material into dense bales, which are then stored for shipment.

**Insignificant activities**

Heat is supplied by a 2.1 MMBTU/hr natural gas-fired boiler. The facility also possesses several small tanks and totes for diesel fuel and hydraulic fluid.

Regulations

The following table contains the regulations applicable to this permit.

Regulations
Arkansas Air Pollution Control Code, Regulation 18, effective February 15, 1999
Regulations of the Arkansas Plan of Implementation for Air Pollution Control, Regulation 19, effective February 15, 1999

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

**Table 1 - Total Allowable Emissions**

TOTAL ALLOWABLE EMISSIONS		
Pollutant	Emission Rates	
	lb/hr	tpy
PM	6.6	23.7
PM <sub>10</sub>	5.6	23.4
SO <sub>2</sub>	2.1	8.9
VOC	0.4	1.5
CO	3.5	14.8
NO <sub>x</sub>	12.8	55.4

### Section III: PERMIT HISTORY

684-A Permit No. 684-A was the first permit issued to the facility on May 28, 1982. Emissions were permitted at the following rates: 2 lb/hr from the Pulp Dryer cyclone (SN-01) and 1 lb/hr from the Pellet Cooler Cyclone (SN-02).



Section IV: EMISSION UNIT INFORMATION

Specific Conditions

1. The permittee shall not exceed the emission rates set forth in the following table. [Regulation 19, §19.501 et seq., effective February 15, 1999 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

**Table 2 – Criteria Pollutants**

SN	Description	Pollutant	lb/hr	tpy
01	Woodwaste Receiving/Loading	PM <sub>10</sub>	0.1	0.1
02	Wood Pelletizing Operations	PM <sub>10</sub>	4.3	18.5
03	Wood Pellet Packaging Operations	PM <sub>10</sub>	0.7	3.0
04	Tub Grinder, 800 HP Diesel	PM <sub>10</sub>	0.3	0.9
		SO <sub>2</sub>	1.1	4.6
		VOC	0.2	0.8
		CO	1.8	7.6
		NO <sub>x</sub>	6.6	28.6
05	Tub Grinder, 750 HP Diesel	PM <sub>10</sub>	0.2	0.9
		SO <sub>2</sub>	1.0	4.3
		VOC	0.2	0.7
		CO	1.7	7.2
		NO <sub>x</sub>	6.2	26.8

2. The permittee shall not exceed the emission rates set forth in the following table. [Regulation 18, §18.801, effective February 15, 1999, and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

**Table 3 – Non-Criteria Pollutants**

SN	Description	Pollutant	lb/hr	tpy
01	Woodwaste Receiving/Loading	PM	1.1	0.4
02	Wood Pelletizing Operations	PM	4.3	18.5
03	Wood Pellet Packaging Operations	PM	0.7	3.0
04	Tub Grinder, 800 HP Diesel	PM	0.3	0.9
04	Tub Grinder, 750 HP Diesel	PM	0.2	0.9

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

**Table 4 – Opacity Limits**

SN	Limit	Regulatory Citation
01, 04, 05	20%	§19.503 and A.C.A
02	5%	§18.501 and A.C.A.
03	5%	§18.501 and A.C.A.

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 A.C.A. §8-4-303. [Regulation 18, §18.901 and A.C.A. §8-4-203 as referenced by A.C.A. §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. [Regulation 18, §18.801 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

**SN-01**

6. The permittee shall not process more than 87,000 tons of dry wood waste per rolling 12-month period. [§19.705 of Regulation 19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
7. The permittee shall maintain records which demonstrate compliance with the limit set in Specific Condition #6. These records shall be maintained on a monthly basis and updated by the 15<sup>th</sup> day of the month following the month to which the records pertain. These records shall be kept on site and shall be provided to Department personnel upon request. [§19.705 of Regulation 19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

**SN-04 and SN-05**

8. The permittee may only combust diesel fuel at the Tub Grinders. [§19.705 of Regulation 19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
9. The permittee may only combust diesel fuel with a maximum sulfur content limit, by weight, of 0.5%. [§19.705 of Regulation 19, A.C.A. §8-4-203 as referenced by §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 19 Appendix A. Insignificant activity emission determinations rely upon the information submitted by the permittee in an application dated August 13, 2003.

**Table 5 – Insignificant Activities**

Description	Category
2.1 MMBTU/hr Boiler	A-1
Diesel Tank #1 (1000 gallons)	A-2
Diesel Tank #2 (1000 gallons)	A-2
Diesel Tank #3 (600 gallons)	A-3
Mobiltrans HD30 Tote	A-1
AW 46 Hydraulic Tote	A-1

## Section VI: GENERAL CONDITIONS

1. 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 (A.C.A. §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 (A.C.A. §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 Act (A.C.A. §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. [A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
3. The permittee will 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. [Regulation 19, §19.704 and/or A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
4. Construction or modification must commence within eighteen (18) months from the date of permit issuance. [Regulation 19, §19.410(B) and/or Regulation 18, §18.309(B) and A.C.A. §8-4-203 as referenced by A.C.A. §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. [Regulation 19, §19.705 and/or Regulation 18, §18.1004 and A.C.A. §8-4-203 as referenced by A.C.A. §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. [Regulation 19, §19.705 and/or Regulation 18, §18.1004 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

Arkansas Department of Environmental Quality  
Air Division

ATTN: Compliance Inspector Supervisor

Post Office Box 8913  
Little Rock, AR 72219

7. The permittee will 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) days in advance of such test. The permittee must submit compliance test results to the Department within thirty (30) days after the completion of testing. [Regulation 19, §19.702 and/or Regulation 18, §18.1002 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
8. The permittee will provide: [Regulation 19, §19.702 and/or Regulation 18, §18.1002 and A.C.A. §8-4-203 as referenced by A.C.A. §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
  - d. Utilities for sampling and testing equipment
9. The permittee will operate equipment, control apparatus and emission monitoring equipment within their design limitations. The permittee will maintain in good condition at all times equipment, control apparatus and emission monitoring equipment. [Regulation 19, §19.303 and/or Regulation 18, §18.1104 and A.C.A. §8-4-203 as referenced by A.C.A. §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: [Regulation 19, §19.601 and/or Regulation 18, §18.1101 and A.C.A. §8-4-203 as referenced by A.C.A. §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: [A.C.A. §8-4-203 as referenced by A.C.A. §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. [A.C.A. §8-4-203 as referenced by A.C.A. §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. [Regulation 19, §19.410(A) and/or Regulation 18, §18.309(A) and A.C.A. §8-4-203 as referenced by A.C.A. §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. [Regulation 19, §19.407(B) and/or Regulation 18, §18.307(B) and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
15. This permit shall be available for inspection on the premises where the control apparatus is located. [A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
16. This permit authorizes only those pollutant emitting activities addressed herein. [A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

17. This permit supersedes and voids all previously issued air permits for this facility.  
[Regulation 18 and 19 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
18. The permittee must pay all permit fees in accordance with the procedures established in Regulation No. 9. [A.C.A §8-1-105(c)]