

ADEQ MINOR SOURCE AIR PERMIT

Permit #: 1712-AR-5

IS ISSUED TO:

Maxwell Hardwood Flooring, Inc.
196 Wilson Mill Road
Monticello, AR 71655
Drew County
AFIN: 22-00064

THIS PERMIT IS MAXWELL HARDWOOD FLOORING INC.'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:

Mike Bates,
Chief, Air Division

Date

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Section I: FACILITY INFORMATION

PERMITTEE: Maxwell Hardwood Flooring, Inc.

AFIN: 22-00064

PERMIT NUMBER: 1712-AR-5

FACILITY ADDRESS: 190 Wilson Mill Road
Monticello, AR 71655

COUNTY: Drew

CONTACT POSITION: Thomas V. Maxwell, President

TELEPHONE NUMBER: 870-367-2346

REVIEWING ENGINEER: Joseph Hurt

UTM North-South (Y) Zone 15 (3716.310 km)

UTM East-West (X): Zone 15 (612.100)

Section II: INTRODUCTION

Summary

Maxwell Hardwood Flooring owns and operates a hardwood flooring facility in Monticello, Arkansas. Currently the facility is permitted to process approximately 2,500,000 board feet of hardwood flooring per month. Maxwell Hardwood Flooring has requested the replacement of a 100 HP wood burning boiler installed in 1962, with a 610 HP 1988 ABCO model wood burning boiler (SN-04). The emission rates for the new wood boiler (SN-04) are based on the maximum capacity of the boiler unit.

Process Description

The company currently manufactures hardwood flooring from rough sawed hardwood lumber, which is purchased off site. This green rough sawed hardwood lumber is received in to the mill yard in an area near the front entrance. The lumber is unloaded from trucks and stacked in sheds, where the drying process begins. The lumber is systematically moved by forklift from the receiving sheds around to the stacking shed. This is the point where the lumber is graded and restacked using approximately 1" thickness stacking strips between each layer of lumber to facilitate drying. It is then moved into the pre-drier shed. This pre-drier shed holds around 750,000 board feet of lumber. The lumber remains in this shed for about forty-five (45) days. The pre-drier is held at a constant 90° F temperature. When heat is necessary during the colder months, steam from the wood waste fired boiler (SN-04) and a natural gas fired boiler (SN-02) is channeled to radiant heat units in the shed to provided the heat and maintain the temperature.

Lumber is moved from the pre-drier shed and from the yard into the dry kilns (SN-03) for final drying. The lumber is left in the dry kilns for a period often (10) days to reduce the moisture down to approximately six to eight percent. The heat necessary in these three kilns is supplied from a wood waste fired boiler. The two kilns are heated by the 300 Hp natural gas fired boiler. The boilers are only used to supply heat into the pre-drying shed and into the kilns themselves. The maximum throughput through these kilns is 15.8 MMBF/year, based on a 12 day drying cycle.

The kiln dried lumber is moved from the kilns, after being normalized, into a place of dry storage. Also, some kiln dried lumber is purchased offsite. This dry storage consists of several sheds located near the front of the mill yard. Since the planer mill has been placed out of service, it is being used to store kiln dried lumber. The lumber remains in the dry storage sheds until it is needed for the flooring mill operation.

All machines in the flooring mill shed are connected to metal ducts, which air convey the sawdust to a large fuel house located behind the boiler shed and to a load out bin east of the rail line for offsite sales. Large fans apply positive air pressure to this duct system. A hog sends chips to the load out bin. There is approximately 20 to 24% waste generated in the manufacturing process. Since this is more than is needed to fire the boiler, excess wood waste is sold as fuel. Approximately eight (8) truckloads per week are loaded out of the peerless loading bin and fourteen (14) truckloads are loaded from the bin and shipped offsite to be used as fuel at another facility. The loading bins are connected to the fuel house and load out bin by metal ductwork. The fuel house has four large cyclones, which are used in receiving the wood waste, chips, and sawdust, placing them in the fuel

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house. The load out bin has its own cyclone. The boiler house has one cyclone on top of that building, which collects the fine dust when the fuel is conveyed into the boiler. It should be noted here that the boiler operation is a twenty-four (24) hour per day, on going, 365 days per year operation, whereas the actual production lines run only for forty (40) hours per week with the expectation of adding a night shift and expanding to eighty (80) hours per week. The peerless bin load out requires an average of five minutes per truck.

The kiln dried lumber is systematically removed from the dry storage sheds and introduced into the flooring mill. The first operation in the flooring mill is passing the lumber through the rip saw. The rip saw sizes the lumber into the desired widths of flooring to be manufactured. The wood waste from the rip saw goes on a conveyer to the hammer type hog. The sawdust is conveyed by positive pneumatic conveyance to the fuel house and load out bin. The rough knot saw or defect saw is located immediately after the rip saw. The lumber is checked and defects are cut from the hardwood lumber. At this point, the lumber is passed on to and through the side matcher. The wood waste that is cut from the lumber is sent on the conveyer to the hog, while the sawdust and shavings are pulled by air conveyance into the fuel house. The side matcher or planer is the machine that dresses the sides of the lumber and prepares it for its next operation. This operation is the finish knot saw or defect saw. The dressed lumber is inspected once again and additional defects, if found, are cut from the lumber at this point. The defective lumber removed by this sawing operation is chain conveyed to the hog while the sawdust is transported to the fuel house through the duct system overhead in the building.

Tongue and groove is applied at this stage of the operation around the edges of the lumber. The lumber is fed first from the finish knot saw into the tongue end matcher, which cuts the tongue portion around the edges of the lumber. Then the flooring material is passed through the groove end-matcher, which cuts the groove on the desired edges of the lumber to complete the manufacturing operation.

Once the lumber has been converted to hardwood flooring, it goes to grading tables within this same building where the various grades of lumber and types of hardwood are sorted and labeled to be packaged. These individual packages are then stacked in larger bundles and banded. Once they are banded together in the large bundles, they are wrapped in plastic and set aside to be loaded on trucks for shipment to the consumer.

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 May 28, 2006

The new 1988 ABCO wood waste boiler (SN-04) is not subject to 40 CFR 60, Subpart Dc – *Standard of Performance for Small Industrial-Commercial-Institutional Steam Generating Units* because it was not constructed, modified, or reconstructed after June 9, 1989.

The following table is a summary of the facility's total emissions.

Table 1 - Total Allowable Emissions

Total Allowable Emissions		
Pollutant	Emissions Rates	
	lb/hr	tpy
PM	9.50	41.22
PM ₁₀	8.6	37.3
SO ₂	0.8	3.3
VOC	2.5	10.4
CO	18.2	79.6
NO _x	15.1	65.9
Acrolein	0.12	0.53
Benzene	0.13	0.56
Chlorine	0.03	0.11
Formaldehyde	0.14	0.58
Hydrogen Chloride	0.57	2.50
Styrene	0.06	0.25
Arsenic	6.60E-04	2.89E-03
Chromium, Hexavalent	1.05E-04	4.60E-04
Lead	1.44E-03	6.31E-03
Manganese	4.80E-02	0.21

Section III: PERMIT HISTORY

The original air permit for this facility, #1712-A, was issued on September 23, 1996.

Air permit #1712-AR-1 was issued on October 31, 1997, and allowed 61.8 tpy of particulates, including 21.2 tpy of PM₁₀.

Air permit #1712-AR-2 was amended on December 27, 2001. This permit modification added an additional production line to increase the output of this plant. This new line will process about 800,000 board feet per month, increasing the total production to 1,800,000 board feet output.

Air permit #1712-AR-2 was issued on March 19, 2003. This de minimis permit modification eliminated the need for record keeping of fuel consumption and steam output on the two small boilers, SN-01 Woodwaste Fired Boiler and SN-02 Natural Gas Fired Boiler. In addition, a more efficient cyclone replaced the original SN-15 Fuel House Cyclone "I" with a reduction in particulate emissions. Emissions have been calculated based on the maximum heat capacity of the two boilers, so that there was no increase in emissions from these two sources.

Air permit #1712-AR-3 was issued on March 19, 2003. This de minimis permit modification eliminated the need for record keeping of fuel consumption and steam output on the two small boilers, SN-01 Woodwaste Fired Boiler and SN-02 Natural Gas Fired Boiler. In addition, a more efficient cyclone has replaced the original SN-15 Fuel House Cyclone "I" with a reduction in particulate emissions. Emissions were calculated based on the maximum heat capacity of the two boilers, so that there was no increase in emissions from these two sources.

Air permit #1712-AR-4 was issued on January 9, 2004. This modification added two new dry kilns, bringing the total number to five. Particulate emissions from nine cyclones were re-calculated and found to total less than 5 tpy for all nine sources, and were reclassified as insignificant sources of emissions. The facility was limited to process approximately 2,500,000 board feet of hardwood flooring per month when this proposed modification is implemented.

Section IV: EMISSION UNIT INFORMATION

Specific Conditions

- The permittee will not exceed the emission rates set forth in the following table. [§19.501 et seq. of the Regulations of the Arkansas Plan of Implementation for Air Pollution Control, effective May 28, 2006 (Regulation 19) and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

Table 2 - Criteria Pollutants

SN	Description	Pollutant	lb/hr	tpy
01	Woodwaste-Fired Boiler 3,375,000 Btu/hour	Removed from service in 2006		
02	Natural Gas-Fired Boiler 3,375,000 Btu/hour	PM ₁₀	0.1	0.2
		VOC	0.1	0.2
		CO	0.1	0.4
		NO _x	0.4	1.5
03	Dry Kilns (5)	PM ₁₀	0.4	1.6
		VOC	1.8	7.9
		CO	0.1	0.3
04	Woodwaste-Fired Boiler 30,000,000 Btu/hour	PM ₁₀	8.1	35.5
		SO ₂	0.8	3.3
		VOC	0.6	2.3
		CO	18.0	78.9
		NO _x	14.7	64.4

- The permittee will not exceed the emission rates set forth in the following table. [§18.801 of the Arkansas Air Pollution Control Code, effective February 15, 1999 (Regulation 18) and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

Table 3 - Non-Criteria Pollutants

SN	Description	Pollutant	lb/hr	tpy
01	Woodwaste-Fired Boiler 3,375,000 Btu/hour	Removed from service in 2006		
02	Natural Gas-Fired Boiler 3,375,000 Btu/hour	PM	0.1	0.2
03	Dry Kilns (5)	PM	0.4	1.6

04	Woodwaste-Fired Boiler 30,000,000 Btu/hour	PM	9.00	39.42
		Acrolein	0.12	0.53
		Benzene	0.13	0.56
		Chlorine	0.03	0.11
		Formaldehyde	0.14	0.58
		Hydrogen Chloride	0.57	2.50
		Styrene	0.06	0.25
		Arsenic	6.60E-4	2.89E-3
		Chromium, Hexavalent	1.05E-4	4.60E-4
		Lead	1.44E-3	6.31E-3
		Manganese	4.80E-2	0.21

3. Visible emissions will 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 §8-4-304 and §8-4-311]

Table 4 - Visible Emissions

SN	Limit	Regulatory Citation
SN-01	N/A	Removed from service in 2006
SN-02	5%	§18.501
SN-03	5%	§18.501
SN-04	20%	§19.503

4. The permittee will 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. [§18.801 of Regulation 18, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-31]
5. The permittee will not conduct operations in such a manner as to unnecessarily cause air contaminants and other pollutants to become airborne. [§18.901 of Regulation 18, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

Facility-Wide Conditions

6. The permittee shall burn only wood waste in the Woodwaste Fired Boiler (SN-04). [§19.705 of Regulation 19, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
7. The permittee shall burn only pipeline quality natural gas in the Natural Gas Fired Boiler (SN-02). [§19.705 of Regulation 19, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
8. The permittee shall not process more than 2.5 million board feet of hardwood lumber per month or more than 30.0 million board feet of hardwood lumber per consecutive 12 month period. [§19.705 of Regulation 19 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

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9. The permittee shall maintain monthly records which demonstrate compliance with Specific Condition #8. Records shall be updated by the fifteenth day of the month following the month to which the records pertain. These records shall be kept on site, and shall be made available to Department personnel upon request. [§19.705 of Regulation 19 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
10. The permittee shall conduct initial stack emissions testing on the wood-waste boiler (SN-04) to measure the following pollutants by the indicated US EPA Reference Test Method as published in 40 CFR Part 60 Appendix A. All testing shall be conducted with the boiler operating at or above 90% of rated capacity. This testing shall be conducted within 90 days of start-up of the new boiler. Results of this testing shall be submitted to the Department in accordance with General Condition #6. [§19.702 of Regulation 19 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

Table 5 – Initial Stack Emissions Testing

Pollutant	EPA Test Method
PM	5 w/back half sampling train particulate
CO	10
NO _x	7E

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 September 5, 2003.

Table 6 - Insignificant Activities

Description	Category
Fuel Storage House	A-13
Peerless Loading Bin	A-13
Load out Bin II	A-13
Load out Bin II	A-13
Peerless Bin Cyclone "A"	A-13
Fuel House Cyclone "C"	A-13
Fuel House Cyclone "D"	A-13
Fuel House Cyclone "E"	A-13
Fuel House Cyclone "E"	A-13
Fuel House Cyclone "G" + Fuel House Cyclone "J"	A-13
Fuel House Cyclone "H"	A-13
Fuel House Cyclone "I"	A-13

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. [§19.704 of the Regulations of the Arkansas Plan of Implementation for Air Pollution Control (Regulation 19) 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. [§19.410(B) of Regulation 19 and/or §18.309(B) of the Arkansas Air Pollution Control Code (Regulation 18) 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. [§19.705 of Regulation 19 and/or §18.1004 of Regulation 18 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. [§19.705 of Regulation 19 and/or §18.1004 of Regulation 18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

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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. [§19.702 of Regulation 19 and/or §18.1002 of Regulation 18 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: [§19.702 of Regulation 19 and/or §18.1002 of Regulation 18 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. [§19.303 of Regulation 19 and/or §18.1104 of Regulation 18 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: [§19.601 of Regulation 19 and/or §18.1101 of Regulation 18 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.

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- 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
 - 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. [§19.410(A) of Regulation 19 and/or §18.309(A) of Regulation 18 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. [§19.407(B) of Regulation 19 and/or §18.307(B) of Regulation 18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

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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 §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 §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)]