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| Gilbert Wood Products, Inc. |) | Departmental |
| Oxford County |) | Findings of Fact and Order |
| Greenwood, Maine |) | Air Emission License |
| A-15-71-D-A/R |) | |

After review of the air emissions license amendment application, staff investigation reports and other documents in the applicant’s file in the Bureau of Air Quality, pursuant to 38 M.R.S.A., Section 344 and Section 590, the Department finds the following facts:

I. REGISTRATION

A. Introduction

Gilbert Wood Products, Inc. (GWP) of Greenwood, Maine has applied to renew their Air Emission License permitting the operation of emission sources associated with their wood turning facility. GWP has also requested an amendment to their license in order to increase VOC levels, and add an existing but previously unlicensed diesel fire pump.

B. Emission Equipment

GWP is authorized to operate the following equipment:

Fuel Burning Equipment

| <u>Equipment</u> | <u>Maximum Capacity (MMBtu/hr)</u> | <u>Maximum Firing Rate</u> | <u>Fuel Type, % moisture</u> |
|-------------------------|---|-----------------------------------|-------------------------------------|
| Boiler #1 | 6.0 | 1154 lb/hr | wood, [40% moisture |
| Boiler #2 | 6.0 | 1154 lb/hr | wood, [40% moisture |
| Diesel Fire Pump | 0.92 | 6.7 gal/hr | diesel, 0.05% sulfur |

Process Equipment

| <u>Equipment</u> | <u>Production Rate</u> | <u>Pollution Control Equipment</u> |
|-------------------------|-------------------------------|---|
| Kiln #1 | 39,000 BF/batch | none |
| Kiln #2 | 39,000 BF/batch | none |
| Kiln #3 | 10,000 BF/batch | none |
| Wood turning | 4,000 pieces/hr | cyclones |
| Spray booths | 10,700 pieces/hr | paper filters |
| Tumbling barrels | 1,900 pieces/hr | none |

C. Application Classification

This modification is determined to be a renewal and amendment and has been processed as such.

II. BEST PRACTICAL TREATMENT (BPT)

A. Introduction

In order to receive a license the applicant must control emissions from each unit to a level considered by the Department to represent Best Practical Treatment (BPT), as defined in Chapter 100 of the Air Regulations. Separate control requirement categories exist for new and existing equipment as well as for those sources located in designated non-attainment areas.

BPT for new sources and modifications requires a demonstration that emissions are receiving Best Available Control Technology (BACT), as defined in Chapter 100 of the Air Regulations. BACT is a top-down approach to selecting air emission controls considering economic, environmental and energy impacts.

BPT for existing emissions equipment means that method which controls or reduces emissions to the lowest possible level considering:

- the existing state of technology;
- the effectiveness of available alternatives for reducing emission from the source being considered; and
- the economic feasibility for the type of establishment involved.

B. Boilers #1 and #2

Boilers #1 and #2 are both wood-fired boilers with a maximum input capacity of 6.0 MMBtu/hr each.

A summary of the BACT analysis for each of the pollutants is discussed below:

1. PM and PM₁₀ emission rates are based upon MEDEP Chapter 103. The licensed allowable PM emission rate for each boiler is 0.68 lb/MMBtu, based on the maximum capacity of 6.0 MMBtu/hr.
2. SO₂, NO_x, CO and VOC emission rates are based upon AP-42 factors dated 2/99 for wood waste combustion.
3. Visible emissions from each boiler shall not exceed 30% opacity on a six-minute block average basis, except for no more than 2 six-minute block averages in a three-hour period.

C. Diesel Fire Pump

The Diesel Fire Pump is a Cummins diesel with a maximum input capacity of 130 hp, and fires 6.7 gal/hr of diesel fuel with a sulfur content not to exceed 0.05% by weight. This unit is considered an emergency unit, and shall be limited to 500 hours of operation per year.

A summary of the BACT analysis for each of the pollutants is discussed below:

1. PM, PM₁₀, SO₂, NO_x, CO and VOC emission rates are based upon AP-42 factors dated 10/96 for diesel industrial engines.
2. Visible emissions from the Diesel Fire Pump shall not exceed 20% opacity on a six-minute block average basis, except for no more than 2 six-minute block averages in a three-hour period.

D. Kilns

GWP operates three wood drying kilns, #1 and #2 are capable of drying 39,000 BF/batch, and #3 is capable of drying 10,000 BF/batch. GWP dries soft maple, beech, yellow birch, white birch and hard maple in the kilns, all of which are hardwood species. Due to lack of existing data for emissions from hardwood species, VOC emission factors are based on the lowest softwood factor of 0.12 lb/1000 BF for cedar.

E. General Process Sources

General process sources include wood turning equipment, tumbling barrels and spray booths. PM emissions from the wood processing equipment are controlled by cyclones. BPT includes continuous operation of the cyclones at all times when wood processing equipment is in operation, and opacity from the cyclones shall not exceed 10% opacity on a six-minute block average basis.

The spray booths are equipped with paper filters, and BPT includes keeping a maintenance log detailing when the filters are visually inspected and changed, as well as any other maintenance performed. Visible emissions from the paper filters shall be limited to 10% opacity on a six-minute block average basis.

Emissions from the tumbling barrels vent to the atmosphere, with no pollution control equipment.

VOC emissions from all painting operations shall not exceed 18.0 tons/yr, based on a 12-month rolling total.

F. Annual Emission Restrictions

GWP shall be restricted to the following annual emissions, based on a 12-month rolling total:

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Total Allowable Annual Emission for the Facility
(used to calculate the annual license fee)

| <u>Pollutant</u> | <u>Tons/Year</u> |
|------------------|------------------|
| PM | 18.1 |
| PM ₁₀ | 18.1 |
| SO ₂ | 0.5 |
| NO _x | 2.3 |
| CO | 21.1 |
| VOC | 20.7 |

III. AMBIENT AIR QUALITY ANALYSIS

According to the Maine Regulations Chapter 115, the level of air quality analyses required for a renewal source shall be determined on a case-by case basis. Based on the above total facility emissions, GWP is below the emissions level required for modeling and monitoring.

ORDER

Based on the above Findings and subject to conditions listed below, the Department concludes that the emissions from this source:

- will receive Best Practical Treatment,
- will not violate applicable emission standards,
- will not violate applicable ambient air quality standards in conjunction with emissions from other sources.

The Department hereby grants Air Emission License A-15-71-D-R subject to the following conditions:

STANDARD CONDITIONS

- (1) Employees and authorized representatives of the Department shall be allowed access to the licensee's premises during business hours, or any time during which any emissions units are in operation, and at such other times as the Department deems necessary for the purpose of performing tests, collecting samples, conducting inspections, or examining and copying records relating to emissions.
- (2) The licensee shall acquire a new or amended air emission license prior to commencing construction of a modification, unless specifically provided for in Chapter 115.

- (3) Approval to construct shall become invalid if the source has not commenced construction within eighteen (18) months after receipt of such approval or if construction is discontinued for a period of eighteen (18) months or more. The Department may extend this time period upon a satisfactory showing that an extension is justified, but may condition such extension upon a review of either the control technology analysis or the ambient air quality standards analysis, or both.
- (4) The licensee shall establish and maintain a continuing program of best management practices for suppression of fugitive particulate matter during any period of construction, reconstruction, or operation which may result in fugitive dust, and shall submit a description of the program to the Department upon request.
- (5) The licensee shall pay the annual air emission license fee to the Department, calculated pursuant to Title 38 M.R.S.A. \ 353.
- (6) The license does not convey any property rights of any sort, or any exclusive privilege.
- (7) The licensee shall maintain and operate all emission units and air pollution systems required by the air emission license in a manner consistent with good air pollution control practice for minimizing emissions.
- (8) The licensee shall maintain sufficient records to accurately document compliance with emission standards and license conditions and shall maintain such records for a minimum of six (6) years. The records shall be submitted to the Department upon written request.
- (9) The licensee shall comply with all terms and conditions of the air emission license. The filing of an appeal by the licensee, the notification of planned changes or anticipated noncompliance by the licensee, or the filing of an application by the licensee for a renewal of a license or amendment shall not stay any condition of the license.
- (10) The licensee may not use as a defense in an enforcement action that the disruption, cessation, or reduction of licensed operations would have been necessary in order to maintain compliance with the conditions of the air emission license.
- (11) In accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department, the licensee shall:

- (i) perform stack testing to demonstrate compliance with the applicable emission standards under circumstances representative of the facility's normal process and operating conditions:
 - a. within sixty (60) calendar days of receipt of a notification to test from the Department or EPA, if visible emissions, equipment operating parameters, staff inspection, air monitoring or other cause indicate to the Department that equipment may be operating out of compliance with emission standards or license conditions; or
 - b. pursuant to any other requirement of this license to perform stack testing.
 - (ii) install or make provisions to install test ports that meet the criteria of 40 CFR Part 60, Appendix A, and test platforms, if necessary, and other accommodations necessary to allow emission testing; and
 - (iii) submit a written report to the Department within thirty (30) days from date of test completion.
- (12) If the results of a stack test performed under circumstances representative of the facility's normal process and operating conditions indicate emissions in excess of the applicable standards, then:
- (i) within thirty (30) days following receipt of such test results, the licensee shall re-test the non-complying emission source under circumstances representative of the facility's normal process and operating conditions and in accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department; and
 - (ii) the days of violation shall be presumed to include the date of stack test and each and every day of operation thereafter until compliance is demonstrated under normal and representative process and operating conditions, except to the extent that the facility can prove to the satisfaction of the Department that there were intervening days during which no violation occurred or that the violation was not continuing in nature; and
 - (iii) the licensee may, upon the approval of the Department following the successful demonstration of compliance at alternative load conditions, operate under such alternative load conditions on an interim basis prior to a demonstration of compliance under normal and representative process and operating conditions.
- (13) Notwithstanding any other provisions in the State Implementation Plan approved by the EPA or Section 114(a) of the CAA, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any statute, regulation, or Part 70 license requirement.

- (14) The licensee shall maintain records of malfunctions, failures, downtime, and any other similar change in operation of air pollution control systems or the emissions unit itself that would affect emission and that is not consistent with the terms and conditions of the air emission license. The licensee shall notify the Department within two (2) days or the next state working day, whichever is later, of such occasions where such changes result in an increase of emissions. The licensee shall report all excess emissions in the units of the applicable emission limitation.
- (15) Upon written request from the Department, the licensee shall establish and maintain such records, make such reports, install, use and maintain such monitoring equipment, sample such emissions (in accordance with such methods, at such locations, at such intervals, and in such a manner as the Department shall prescribe), and provide other information as the Department may reasonably require to determine the licensee's compliance status.

SPECIFIC CONDITIONS

- (16) Boilers #1 and #2
- A. Fuel use shall not exceed 3,000 tons/yr of wood, based on 0% moisture content on a 12-month rolling total. Fuel use records shall be maintained on a monthly basis, in addition to the 12-month rolling total.
 - B. Visible emissions shall not exceed 30% opacity on a six-minute block average basis, except for no more than 2 six-minute block averages in a three-hour period.
 - C. Emissions shall not exceed the following:

| Equipment | | PM | PM ₁₀ | SO ₂ | NO _x | CO | VOC |
|-----------|----------|------|------------------|-----------------|-----------------|------|------|
| Boiler #1 | lb/MMBtu | 0.69 | - | - | - | - | - |
| | lb/hr | 4.10 | 4.10 | 0.06 | 0.28 | 4.76 | 0.13 |
| Boiler #2 | lb/MMBtu | 0.69 | - | - | - | - | - |
| | lb/hr | 4.10 | 4.10 | 0.06 | 0.28 | 4.76 | 0.13 |

- (17) Emergency Diesel Fire Pump
- A. The emergency diesel fire pump shall be limited to 500 hours per year of operation, based on a 12-month rolling total. An hour meter shall be installed and operated on the emergency diesel fire pump.
 - B. The emergency diesel fire pump shall fire diesel fuel with a sulfur content not to exceed 0.05% by weight. A log shall be maintained which records hours of operation for the fire pump, and also consists of fuel delivery receipts showing percent sulfur content. The log shall be maintained on a monthly basis, as well as a 12-month rolling total.

C. Emissions from the emergency diesel fire pump shall not exceed the following:

| <i>Pollutant</i> | <i>lb/hr</i> |
|------------------------|--------------|
| <i>PM</i> | <i>0.29</i> |
| <i>PM₁₀</i> | <i>0.29</i> |
| <i>SO₂</i> | <i>0.27</i> |
| <i>NO_x</i> | <i>4.06</i> |
| <i>CO</i> | <i>0.88</i> |
| <i>VOC</i> | <i>0.33</i> |

- (18) GWP shall limit kiln production to 5 million board feet per year, based on a 12-month rolling total.
- (19) GWP shall keep a production log recording the amount of each species dried in the wood kilns. Records shall be kept on a monthly basis, in addition to a 12-month rolling total.
- (20) GWP shall have moisture testing performed once per quarter, with no more than 90 days between each test. For the purposes of calculating amount of wood fired on a dry basis, GWP shall use the most recent results from moisture testing. GWP shall maintain documentation demonstrating results of moisture testing, for at least the most recent six-year period.
- (21) Visible emissions from the paper filters and process cyclones shall not exceed 10% opacity on a six-minute block average.
- (22) Visible emissions from stockpiles and roadways shall not exceed 10% opacity on a three-minute block average basis.
- (23) GWP shall maintain records of VOC emissions from paint use. Records shall consist of the type of paint used, a copy of the MSDS (Material Safety Data Sheet) for each type of paint, and calculations of VOC based on amount of paint used, assuming that all volatile components are released to the atmosphere. Records shall be maintained on a monthly basis, as well as a 12-month rolling total.

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(23) The term of this Order shall be for five (5) years from the signature below.

DONE AND DATED IN AUGUSTA, MAINE THIS DAY OF 2001.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: _____
MARTHA G. KIRKPATRICK, COMMISSIONER

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: November 5, 1992

Date of application acceptance: November 30, 1992

Date filed with the Board of Environmental Protection: _____

This Order prepared by Elisha McVay, Bureau of Air Quality.