National Wood Products of Maine, Inc.
Oxford, County
Oxford, Maine
A-768-71-D-R

Departmental
Findings of Fact and Order
Air Emission License
Renewal

After review of the air emissions license renewal 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., §344 and §590, the Department finds the following facts:

I. REGISTRATION

A. Introduction

National Wood Products of Maine Inc., (National Wood) has applied to renew their Air Emission License permitting the operation of emission sources associated with their specialty wood products manufacturing facility which produces wooden flatware and specialty products such as rocking chairs, skateboards and cribs.

The equipment addressed in this license is located at 822 Main Street, Oxford, Maine.

B. Emission Equipment

The following equipment is addressed in this air emission license:

Fuel Burning Equipment

Equipment	Maximum Capacity (MMBtu/hr)	Maximum Firing Rate (gal/hr)	Fuel Type,	Install. Date	Stack #
Boiler #1	3.3	36	Propane	1989	#1
Make Up Air Unit	4.5	49	Propane	1990	N/A

Process Equipment

Equipment	Pollution Control Equipment
Electrostatic Coating System	Process control for VOC and HVLP
Spray Finishing (5 booths)	Particulate Filters
Silkscreen Process	-
Wood Milling Process	Mechanical Dust Collector
Parts Degreaser	-

C. Application Classification

The application for National Wood does not include the licensing of increased emissions or the installation of new or modified equipment. Therefore, the license is considered to be a renewal of current licensed emission units only and has been processed through *Major and Minor Source Air Emission License Regulations*, 06-096 CMR 115 (as amended).

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 *Definitions Regulation*, 06-096 CMR 100 (as amended). Separate control requirement categories exist for new and existing equipment as well as for those sources located in designated non-attainment areas.

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 emissions from the source being considered; and
- the economic feasibility for the type of establishment involved.

B. Boiler #1

National Wood operates Boiler #1 for heat and for steam pots located throughout the facility. The boiler is rated at 3.3 MMBtu/hr and fires propane. The boiler was installed in 1989 and exhausts through stack #1.

Due to the size of installation, the boiler is not subject to the New Source Performance Standards (NSPS) 40 CFR Part 60, Subpart Dc, *Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units*, for units greater than 10 MMBtu/hr manufactured after June 9, 1989.

1. BACT/BPT Findings

Propane
PM/PM_{10} – 0.12 lb/MMBtu based on 06-096 CMR 103
SO_2 – 1.5 lb/1000 gal*:* AP-42, Table 1.5-1 (dated 7/08)
NO_X – 13 lb/1000 gal*:* AP-42, Table 1.5-1 (dated 7/08)
CO – 7.5 lb/1000 gal*:* AP-42, Table 1.5-1 (dated 7/08)
VOC – 1.9 lb/1000 gal*:* AP-42, Table 1.5-1 (dated 7/08)
Opacity – Visible emissions from Boiler #1 firing propane shall not exceed an opacity of 10% on a 6 minute block average basis, except for no more than one (1) six (6) minute block average in a 3 hour period.

2. 40 CFR Part 63 Subpart JJJJJJ

As currently proposed Boiler #1 is not subject to the *National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources* (40 CFR Part 63 Subpart JJJJJJ), because Boiler #1 is classified as "gas fired boiler".

C. Make-Up Air Unit

National Wood operates the Make-Up Air Unit for heat. The Make-Up Air Unit is rated at 4.5 MMBtu/hr firing propane. The Make-up Air Unit was installed in 1990 and vents to the atmosphere.

1. BPT Findings

The BPT emission limits for the Make-Up Air Unit were based on the Following:

Propane
PM/PM_{10} – 0.12 lb/MMBtu based on 06-096 CMR 103
SO_2 – 1.5 lb/1000 gal*:* AP-42, Table 1.5-1 (dated 7/08)
NO_X – 13 lb/1000 gal*:* AP-42, Table 1.5-1 (dated 7/08)
CO – 7.5 lb/1000 gal*:* AP-42, Table 1.5-1 (dated 7/08)
VOC – 1.9 lb/1000 gal*:* AP-42, Table 1.5-1 (dated 7/08)
Opacity – Visible emissions from the Make-Up Air Unit firing propane shall not exceed an opacity of 10% on a 6 minute block average

basis, except for no more than one (1) six (6) minute block average in a 3 hour period.

2. 40 CFR Part 63 Subpart JJJJJJ

The Make-Up Air Unit is not subject to the *National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources* (40 CFR Part 63 Subpart JJJJJJ), because the Make-Up Air Unit is classified as "gas fired boiler".

D. Propane Fuel Cap

As previously licensed, National Wood Products is limited to firing no more than 200,000 gallons of propane per year based on a twelve-month rolling total. In order to demonstrate compliance with the fuel use restriction, National Wood Products shall maintain a fuel use log indicating the combined twelve-month rolling total fuel use in Boiler #1 and the Make-up Air Unit.

E. Degreaser Unit

The degreaser unit is not subject to *Solvent Cleaners*, 06-096 CMR 130 because solvent cleaner uses less than two liters (68 oz) of cleaning solvent with a vapor pressure of 1.00 mm Hg, or less, at 20° C (68° F);

F. Additional Insignificant Fuel Burning Equipment

National Wood Products makes use of several small pieces of fuel burning equipment considered insignificant as outlined in Appendix B of MEDEP Chapter 115. These pieces of equipment include five heaters with rated heat input capacities of 225,000 Btu/hr each, one heater with a rated heat input capacity of 100,000 Btu/hr and one gas furnace with a rated heat input capacity of 150,000 Btu/hr. These heaters are below the licensing threshold of 1.0 MMBtu/hr established by Chapter 115 of the Department's regulations and are mentioned in the Findings of Fact of this license for inventory purposes only.

G. Wood Dust Handling Equipment

National Wood operates a pneumatic conveying system for handling wood dust generated from wood milling processes. Blowers convey waste to a pulse jet mechanical dust collector. Wood dust falls from the collector into a hopper and is then blown to a box truck and shipped off site.

National Wood shall establish a system of maintenance, inspection and repair for the wood dust handling system, which shall allow for a monthly inspection of the

system and National Wood shall document compliance by means of a maintenance, inspection and repair log.

The regulated pollutants associated with the operation of wood handling equipment are particulate matter (PM) and particulate matter with a diameter of ten microns and smaller (PM_{10}). BPT for particulate matter emissions shall be the use of the pulse jet mechanical dust collector and limiting visible emissions from the pulse jet mechanical dust collector to 20% opacity on a 6-minute block average basis, except for no more than one 6-minute block average in a 1-hour period.

H. Finishing Department Equipment

1. National Wood utilizes 5 spray-gun booths, four of which are connected by a ceiling mounted moving chain system and one is stand alone. Products are hung from the chain and are moved slowly through the spray booths. The chain may take the product through one or several spray booths before it is then directed to the flash area of the drying oven. The spray booths are currently equipped with both HVLP and airless spray-guns, each of which is utilized depending on the product to be applied. Both types of spray-guns reduce the amount of finish material used which results in reduced VOC and HAP emissions. The airless spray-guns are comparable in efficiency within 5% to the HVLP spray-guns. All the spray booths are vented to atmosphere and particulate matter emissions from the spray booths are controlled by fabric filters.

   BPT shall consist of the requirement of HVLP or comparable spray guns. In addition, National Wood shall maintain monthly records of the amount of finish received and tracked by purchase records (in gallons) for the spray booths, which shall include the coating utilized and the VOC and HAP content of the coating. National Wood shall control particulate matter from the spray booths with the use of fabric filters. BPT shall also be no visible emissions from the spray booth vents.

2. National Wood utilizes an electrostatic coating system, which uses an electrostatic application system and utilizes HVLP spray-guns resulting in high efficiency coating. The facility continues to further cut down the amount of VOC emissions from this process by utilizing new coverage products that now limit and may eliminate the need for "prep-coating". The prep-coat is a high VOC product and reducing this will have a great impact on lowering the VOC emissions from the electrostatic coating process.

   BPT shall consist of the requirement of HVLP or comparable spray guns. In addition, National Wood shall maintain monthly records of the amount of

finish received and tracked by purchase records (in gallons) for the electrostatic coating system, which shall include coating utilized and the VOC and HAP content of the coating.

3. National Wood also makes use of a silk screening process. This process is only used for specialty items and is done on a silk screening machine that vents to atmosphere.

   National Wood shall maintain monthly records of the amount of silkscreen coating received and tracked by purchase records (in gallons) for the silkscreen system, which shall include coating utilized and the VOC and HAP content of the coating.

Pollutants associated with the operation of finishing equipment are PM, PM_{10}, volatile organic compounds (VOC) and Hazardous Air Pollutants (HAPs).

BPT for VOCs from finishing processes shall include good house keeping practices to minimize fugitive VOC emissions. Good housekeeping practices include covering coating storage containers when these containers are not in use, cleaning excess and/or spilt material and proper disposal of contaminated working equipment (gloves, coveralls, tools etc). To ensure compliance, National Wood shall establish a system of maintenance, inspection and repair for the finishing systems, which shall allow for a monthly inspection of the systems, including the ventilation systems associated with the finishing department processes. National Wood shall document compliance by means of a maintenance, inspection and repair log, which shall include the location, date, and nature of all system failures and subsequent repairs.

BPT shall include a finish department VOC limit of 39.0 TPY based on a twelve-month rolling total. Compliance will be based on monthly record keeping indicating the amount of product used on site and the VOC content by weight of the finish.

National Wood, a wood manufacturing facility that performs surface coating, could be subject to Chapter 129 of the Department Regulations. National Wood Products has accepted federally enforceable restrictions on HAPs emissions of 9.9 TPY of any single HAP based on a twelve-month rolling total and 24.9 TPY of all combined HAPs based on a twelve-month rolling total. As a result, National Wood is not considered a Major Source as defined in 40 CFR Part 63.2, subpart A and therefore not subject to Chapter 129 of the Department Regulations. Compliance will be based on monthly record keeping indicating the amount of product used and percent HAP by weight in each product.

I. Fugitive Emissions

Visible emissions from a fugitive emission source (including stockpiles and roadways) shall not exceed an opacity of 20%, except for no more than five (5) minutes in any 1-hour period. Compliance shall be determined by an aggregate of the individual fifteen (15)-second opacity observations which exceed 20% in any one (1) hour.

J. General Process Emissions

Visible emissions from any general process source shall not exceed an opacity of 20% on a six (6) minute block average basis, except for no more than one (1) six (6) minute block average in a 1-hour period.

K. Annual Emissions

Total Licensed Annual Emissions for the Facility
Tons/year
(used to calculate the annual license fee)

Pollutant	Tons/Year
PM	**1.5**
PM_{10}	**1.5**
SO_2	**0.05**
NO_x	**1.4**
CO	**0.5**
VOC	**39.9**
Individual HAPs*	**9.9**
HAPs*	**24.9**

* HAPs are identified by the EPA in regulations pursuant to Section 112(b) of the Clean Air Act

1. Greenhouse Gases

Greenhouse gases are considered regulated pollutants as of January 2, 2011 through 'Tailoring' revisions made to EPA's *Approval and Promulgation of Implementation Plans,* 40 CFR Part 52, Subpart A, §52.21 Prevention of Significant Deterioration of Air Quality rule. "Greenhouse gases" as defined in 06-096 CMR 100 (as amended) means the aggregate group of the following gases: Carbon dioxide, nitrous oxide, methane, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. Greenhouse gases (GHG) for purposes of licensing are calculated and reported as carbon dioxide equivalents (CO_2e).

Based on the facility's fuel use limit(s), the worst case emission factors from AP-42, IPCC (Intergovernmental Panel on Climate Change), and *Mandatory Greenhouse Gas Reporting*, 40 CFR Part 98, and the global warming potentials contained in 40 CFR Part 98, National Wood is below the major source threshold of 100,000 tons of CO_2 e per year. Therefore, no additional licensing requirements are needed to address GHG emissions at this time.

III. AMBIENT AIR QUALITY ANALYSIS

According to 06-096 CMR 115, the level of air quality analyses required for a renewal source shall be determined on a case-by case basis. Modeling is not required for a renewal if the total emissions of any pollutant released do not exceed the following and there are no extenuating circumstances:

Pollutant	Tons/Year
PM	25
PM_{10}	25
SO_2	50
NO_x	100
CO	250

Based on the total facility licensed emissions, National Wood is below the emissions level required for modeling.

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-768-71-D-R subject to the following conditions.

Severability. The invalidity or unenforceability of any provision, or part thereof, of this License shall not affect the remainder of the provision or any other provisions. This License shall be construed and enforced in all respects as if such invalid or unenforceable provision or part thereof had been omitted.

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 (38 M.R.S.A. §347-C).

(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. [06-096 CMR 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. [06-096 CMR 115]

(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. [06-096 CMR 115]

(5) The licensee shall pay the annual air emission license fee to the Department, calculated pursuant to Title 38 M.R.S.A. §353-A. [06-096 CMR 115]

(6) The license does not convey any property rights of any sort, or any exclusive privilege. [06-096 CMR 115]

(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. [06-096 CMR 115]

(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. [06-096 CMR 115]

(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. [06-096 CMR 115]

(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. [06-096 CMR 115]

(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:

A. perform stack testing to demonstrate compliance with the applicable emission standards under circumstances representative of the facility's normal process and operating conditions:
   1. 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
   2. pursuant to any other requirement of this license to perform stack testing.

B. 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

C. submit a written report to the Department within thirty (30) days from date of test completion.

[06-096 CMR 115]

(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:

A. 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

B. 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

C. there were intervening days during which no violation occurred or that the violation was not continuing in nature; and

D. 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.

[06-096 CMR 115]

(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. [06-096 CMR 115]

(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. [06-096 CMR 115]

(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. [06-096 CMR 115]

SPECIFIC CONDITIONS

(16) **Boiler #1**

National Wood is licensed to operate Boiler #1 with a heat input rate of 3.3 MMBtu/hr firing propane.

A. Emissions from Boiler #1 shall not exceed the following:

Emission Unit	Pollutant	lb/MMBtu	Origin and Authority
Boiler # 1	PM	0.12	06-096 CMR 103(2)(B)(1)(a)

B. Emissions from Boiler #1 shall not exceed the following [06-096 CMR 115, BPT]:

Emission Unit	PM (lb/hr)	PM_{10} (lb/hr)	SO_2 (lb/hr)	NO_x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Boiler #1	0.47	0.47	0.06	0.56	0.32	0.08

C. Visible emissions from Boiler #1 shall not exceed 10% opacity on a six (6) minute block average, except for no more than one (1) six (6) minute block averages in a continuous 3-hour period. [06-096 CMR 101]

(17) **Make-Up Air Unit**

National Wood is licensed to operate the Make-Up Air Unit with a heat input rate of 4.5 MMBtu/hr firing propane.

A. Emissions from the Make-Up Air Unit shall not exceed the following:

Unit	Pollutant	lb/MMBtu	Origin and Authority
Make-Up Air Unit	PM	0.12	06-096 CMR 103(2)(B)(1)(a)

B. Emissions from the Make-Up Air Unit shall not exceed the following [06-096 CMR 115, BPT]:

Unit	PM (lb/hr)	PM_{10} (lb/hr)	SO_2 (lb/hr)	NO_x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Make-Up Air Unit	0.54	0.54	0.07	0.65	0.37	0.09

C. Visible Emissions

Visible emissions from the Make-Up Air Unit firing propane shall not exceed 10% opacity on a 6 minute block average, except for no more than one (1) six (6) minute block average in a 3 hour period. [06-096 CMR 101]

(18) Propane Fuel Cap

National Wood is limited to firing no more than 200,000 gallons of propane per year based on a twelve-month rolling total. In order to demonstrate compliance with the fuel use restriction, National Wood shall maintain a fuel use log indicating the combined twelve-month rolling total fuel use in Boilers #1 and the Make-Up Air Unit. [06-096 CMR 115, BPT]

(19) Pneumatic Wood Dust Handling System

A. Visible emissions from the wood dust handling system which includes the wood dust blower system, the mechanical dust collector and the box truck blower system shall not exceed an opacity of 20% on a 6-minute block average basis, except for no more than one 6-minute block average in a 1-hour period. [06-096 CMR 101]

B. National Wood shall establish a system of maintenance, inspection and repair for the waste wood handling system, which shall allow for a monthly inspection of the system. [06-096 CMR 115, BPT]

C. National Wood shall document compliance by means of a maintenance, inspection and repair log. National Wood shall inspect operations of the wood waste handling system, once per month and record findings in the maintenance, inspection and repair log. [06-096 CMR 115, BPT]

(20) VOC and HAP Process Emissions

A. VOC and HAP emissions shall be documented by monthly record keeping indicating the amount of coating material received and tracked by purchase records (in gallons), the percent VOC and HAP content of each product and the total VOC and HAP emissions based on a twelve-month rolling total. [06-096 CMR, BPT]

B. The total annual finishing department VOC emissions shall not exceed 39.0 tons per year based on a twelve-month rolling total. [06-096 CMR 115, BPT]

C. Total facility HAP emissions shall be limited to 9.9 tons per year of any single HAP and 24.9 tons per year of all combined HAPs. [06-096 CMR 115, BPT]

D. National Wood shall use fabric filters in the spray booths for control of particulate matter. [06-096 CMR 115, BPT]

E. National Wood shall use HVLP or comparable spray-guns in the spray booths and the electrostatic coating process. [06-096 CMR 115, BPT]

F. National Wood shall maintain monthly records of the amount of finish received and tracked by purchase records (in gallons) for the spray booths, the electrostatic coating process and the silkscreen process, which shall include coating utilized and the VOC and HAP content of the coating. [06-096 CMR 115, BPT]

G. National Wood shall establish a system of maintenance, inspection and repair for the finishing systems, which shall allow for a monthly inspection of the systems, including the ventilation systems associated with the finishing department processes. National Wood shall document compliance by means of a maintenance, inspection and repair log. [06-096 CMR 115, BPT]

H. There shall be no visible emissions from the finishing room vents. [06-096 CMR 115, BPT]

I. National Wood shall utilize good housekeeping practices to minimize fugitive particulate matter, VOC and HAP emissions from finishing process. [06-096 CMR 115, BPT]

(21) Fugitive Emissions

Visible emissions from a fugitive emission source (including stockpiles and roadways) shall not exceed an opacity of 20%, except for no more than five (5) minutes in any 1-hour period. Compliance shall be determined by an aggregate of the individual fifteen (15)-second opacity observations which exceed 20% in any one (1) hour. [06-096 CMR 101]

(22) General Process Sources

Visible emissions from any general process source shall not exceed an opacity of 20% on a six (6) minute block average basis, except for no more than one (1) six (6) minute block average in a 1-hour period. [06-096 CMR 101]

(23) National Wood shall notify the Department within 48 hours and submit a report to the Department on a quarterly basis if a malfunction or breakdown in any component causes a violation of any emission standard (38 M.R.S.A. §605).

DONE AND DATED IN AUGUSTA, MAINE THIS 17th DAY OF April , 2012.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: Melanie Loyzim for
PATRICIA W. AHO, COMMISSIONER

The term of this license shall be five (5) years from the signature date above.

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: 2/17/10
Date of application acceptance: 3/2/10

Date filed with the Board of Environmental Protection:

This Order prepared by Kurt Tidd, Bureau of Air Quality.

Filed
APR 19 2012
State of Maine
Board of Environmental Protection