

**Vic Firth Manufacturing, Inc.**  
**Penobscot County**  
**Newport, Maine**  
**A-334-71-D-N**

**Departmental**  
**Findings of Fact and Order**  
**Air Emission License**  
**After-the-Fact**

After review of the air emissions license 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

The Air Emission License for Vic Firth Manufacturing, Inc. (Vic Firth) located in Newport, Maine expired on April 9, 2007. Vic Firth has applied to renew their expired license permitting the operation of emission sources associated with their wood products manufacturing facility.

B. Emission Equipment

The following equipment is addressed in this air emission license:

**Fuel Burning Equipment**

<b><u>Equipment</u></b>	<b><u>Maximum Capacity (MMBtu/hr)</u></b>	<b><u>Maximum Firing Rate</u></b>	<b><u>Fuel Type</u></b>	<b><u>Stack #</u></b>
Boiler #1 <sup>a</sup>	8.4	0.9 ton/hr	Wood	1
Boiler #2 <sup>b</sup>	2.0	14.3 gal/hr	#2 fuel oil, 0.5% sulfur	2

<sup>a</sup> Boiler #1 was previously licensed as 12 MMBtu/hr. This was the rated size of the boiler when it fired natural gas. Since its conversion to wood, Boiler #1's maximum capacity is 8.4 MMBtu/hr.

<sup>b</sup> Boiler #2 was previously licensed to fire wood. It has since been converted to fire #2 fuel oil instead.

### Process Equipment

<u>Equipment</u>	<b>Maximum Part Capacity (parts/hr)</b>
Spray Line	2400
Tumble Finish Equipment	7000
Dip Finish Equipment	3000
Parts Cleaner	N/A
Drying Oven	190

Vic Firth has additional equipment, including drying kilns, which are considered insignificant activities and noted in this license for completeness purposes only.

#### C. Application Classification

The previous air emission license for Vic Firth expired on April 9, 2007. A complete application was not submitted on time, therefore Vic Firth is considered to be an existing source applying for an after-the-fact renewal. The Department has determined the facility is a minor source and the application has been processed through *Major and Minor Source Air Emission License Regulations*, 06-096 CMR 115 (last amended December 24, 2005).

## 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 (last amended December 24, 2005). Separate control requirement categories exist for new and existing equipment as well as for those sources located in designated non-attainment areas.

BPT for an after-the-fact renewal requires an analysis similar to a Best Available Control Technology analysis per 06-096 CMR 115.

B. Boiler #1

Boiler #1 was manufactured in 1977 as a natural gas fired boiler with a maximum heat input of 12 MMBtu/hr. It was modified to fire wood in 1980. The maximum heat input of Boiler #1 firing wood is 8.4 MMBtu/hr. Boiler #1 fires wood with an average moisture content of 10%. All records of fuel use will be assumed to be at this moisture content unless otherwise noted.

Boiler #1 is limited to a heat input of less than 10 MMBtu/hr and is therefore not subject to the New Source Performance Standards (NSPS) Subpart Dc for steam generating units greater than 10 MMBtu/hr manufactured after June 9, 1989.

A summary of the BPT analysis for Boiler #1 is the following:

1. Boiler #1 shall fire only wood.
2. *Fuel Burning Equipment Particulate Emission Standard*, 06-096 CMR 103 (last amended November 3, 1990) regulates PM emission limits. The PM<sub>10</sub> limits are derived from the PM limits.
3. SO<sub>2</sub>, NO<sub>x</sub>, CO, and VOC emission limits are based upon AP-42 data dated 9/03.
4. Visible emissions from Boiler #1 shall not exceed 30% opacity on a six (6) minute block average, except for no more than two (2) six (6) minute block averages in a continuous 3-hour period.

C. Boiler #2

Boiler #2 was manufactured in 1980 and was previously licensed to fire wood. Boiler #2 has since been converted to fire #2 fuel oil.

Boiler #2 has a maximum heat input of 2.0 MMBtu/hr and is therefore not subject to the New Source Performance Standards (NSPS) Subpart Dc for steam generating units greater than 10 MMBtu/hr manufactured after June 9, 1989.

A summary of the BPT analysis for Boiler #2 is the following:

1. Boiler #2 shall fire only #2 fuel oil.
2. The SO<sub>2</sub> emission limits are based on the firing of fuel which meets the criteria in ASTM D396 for #2 fuel oil.
3. The PM, PM<sub>10</sub>, and NO<sub>x</sub> emission limits are based on data from similar #2 fired boilers of this size and age.
4. CO and VOC emission limits are based upon AP-42 data dated 9/98.

5. Visible emissions from the boilers shall not exceed 20% opacity on a six (6) minute block average, except for no more than one (1) six (6) minute block average in a continuous 3-hour period.

D. Process Equipment:

Tumblers, Spray Line and Dip Finish

Vic Firth operates one spray line, two tumblers and one dip finish operation to apply coatings to their wood products. VOC emissions are based on quantity of coatings used and MSDS data for percent volatility less percent acetone. Assuming all of the volatile components in the finish are emitted as VOC vapor, Vic Firth has emitted a maximum of 33 tons/year of VOC in past. Therefore Vic Firth shall be limited to a maximum total of 35 tons/year of VOC emissions from tumblers #1 and #2, the spray line and the dip finish process, based on a 12 month rolling total. Vic Firth shall keep monthly records of VOC emitted from tumblers #1 and #2, the spray line and the dip finish process, and shall calculate VOC emissions from these sources on a 12 month rolling total basis to ensure compliance.

Cleaning Stations

Vic Firth also operates several small cleaning stations and a parts cleaning station from which very small quantities of VOCs are emitted. The total quantity of VOCs emitted from the cleaning stations is assumed to be less than 1 ton/year, therefore the cleaning stations are considered an insignificant activity as defined in 06-096 CMR 115, Appendix B.B.1. Although the emissions from the parts degreasers are considered insignificant based on amount of VOCs emitted, the degreaser is subject to the operational standards found in *Solvent Cleaners*, 06-096 CMR 130 (last amended June 28, 2004).

E. Wood Drying Kilns:

Vic Firth operates seven kilns for drying lumber. Maximum total yearly throughput in all seven kilns is 2730 thousand board feet per year based on a 12 month rolling total. There has not been enough data gathered on VOC emissions from hardwood species to calculate an exact emission rate from these processes. However, it is the opinion of the Department that if Vic Firth processes lumber through their kilns at maximum capacity they will not exceed 1 ton/year of VOCs, therefore making lumber drying in the kilns an insignificant activity as defined in 06-096 CMR 115, Appendix B.B.1.

F. Drying Oven:

One steam heated drying oven is located on site and used occasionally to dry parts.

G. 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.

H. 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.

I. Annual Emissions

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

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

	<b>PM</b>	<b>PM<sub>10</sub></b>	<b>SO<sub>2</sub></b>	<b>NO<sub>x</sub></b>	<b>CO</b>	<b>VOC</b>	<b>Total HAP</b>
Boiler #1	11.0	11.0	0.9	8.1	22.1	0.6	--
Boiler #2	0.7	0.7	4.4	2.6	0.3	0.1	--
Process Emissions	--	--	--	--	--	35.0	9.9
<b>Total TPY</b>	<b>11.7</b>	<b>11.7</b>	<b>5.3</b>	<b>10.7</b>	<b>22.4</b>	<b>35.7</b>	<b>9.9</b>

### III. AMBIENT AIR QUALITY ANALYSIS

According to the 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 and monitoring are not required for a renewal if the total emissions of any pollutant released do not exceed the following:

<u>Pollutant</u>	<u>Tons/Year</u>
PM	25
PM <sub>10</sub>	25
SO <sub>2</sub>	50
NO <sub>x</sub>	100
CO	250

Based on the above total facility emissions, Vic Firth 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-334-71-D-N 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. [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 there were intervening days during which no violation occurred or that the violation was not continuing in nature; and
  - C. 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**

- A. Boiler #1 shall fire only wood. Records of annual fuel use (on a 10% moisture basis) shall be kept on a calendar basis. [06-096 CMR 115, BPT]
- B. Emissions shall not exceed the following:

Emission Unit	Pollutant	lb/MMBtu	Origin and Authority
Boiler #1	PM	0.3	06-096 CMR 103

- C. Emissions shall not exceed the following [MEDEP Chapter 115, BPT]:

Emission Unit	PM (lb/hr)	PM <sub>10</sub> (lb/hr)	SO <sub>2</sub> (lb/hr)	NO <sub>x</sub> (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Boiler #1	2.52	2.52	0.21	1.85	5.04	0.14

D. Visible emissions from Boiler #1 shall each not exceed 30% opacity on a six (6) minute block average, except for no more than two (2) six (6) minute block averages in a continuous 3-hour period. [06-096 CMR 101]

(17) **Boiler #2**

A. Boiler #2 shall fire only #2 fuel oil. Compliance shall be demonstrated by fuel records from the supplier showing the quantity and type of fuel delivered. [06-096 CMR 115, BPT]

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

<b>Emission Unit</b>	<b>PM (lb/hr)</b>	<b>PM<sub>10</sub> (lb/hr)</b>	<b>SO<sub>2</sub> (lb/hr)</b>	<b>NO<sub>x</sub> (lb/hr)</b>	<b>CO (lb/hr)</b>	<b>VOC (lb/hr)</b>
Boiler #2	0.16	0.16	1.01	0.60	0.07	0.01

C. Visible emissions from Boiler #2 shall not exceed 20% opacity on a six (6) minute block average, except for no more than one (1) six (6) minute block average in a continuous 3-hour period. [06-096 CMR 101]

(18) **Tumblers, Spray Line and Dip Finish**

A. Visible emissions from the tumble finishing equipment, the spray line, and the dip finish equipment shall each not exceed an opacity of 20% on a 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 115, BPT]

B. VOC emissions from the tumble finishing equipment, the spray line, and the dip finish equipment shall not exceed 35.0 tons/year, based on a 12 month rolling total. Vic Firth shall keep monthly records of VOC emitted from the tumble finishing equipment, the spray line and the dip finish process, and shall calculate VOC emissions from these sources on a 12 month rolling total basis to ensure compliance. [06-096 CMR 115, BPT]

(19) **Parts Washer/Cleaning Stations**

Parts washers/cleaning stations at Vic Firth are subject to *Solvent Cleaners*, 06-096 CMR 130 (last amended June 28, 2004).

A. Vic Firth shall keep records of the amount of solvent added to each parts washer. [06-096 CMR 115, BPT]

- B. The following are exempt from the requirements of 06-096 CMR 130 [06-096 CMR 130]:
1. Solvent cleaners using less than two liters (68 oz) of cleaning solvent with a vapor pressure of 1.00 mmHg, or less, at 20° C (68° F);
  2. Wipe cleaning; and,
  3. Cold cleaning machines using solvents containing less than or equal to 5% VOC by weight.
- C. The following standards apply to remote reservoir cold cleaning machines that are applicable sources under Chapter 130.
1. Vic Firth shall attach a permanent conspicuous label to each unit summarizing the following operational standards [06-096 CMR 130]:
    - (i) Waste solvent shall be collected and stored in closed containers.
    - (ii) Cleaned parts shall be drained of solvent directly back to the cold cleaning machine by tipping or rotating the part for at least 15 seconds or until dripping ceases, whichever is longer.
    - (iii) Flushing of parts shall be performed with a solid solvent spray that is a solid fluid stream (not a fine, atomized or shower type spray) at a pressure that does not exceed 10 psig. Flushing shall be performed only within the freeboard area of the cold cleaning machine.
    - (iv) The cold cleaning machine shall not be exposed to drafts greater than 40 meters per minute when the cover is open.
    - (v) Sponges, fabric, wood, leather, paper products and other absorbent materials shall not be cleaned in the degreaser.
    - (vi) When a pump-agitated solvent bath is used, the agitator shall be operated to produce no observable splashing of the solvent against the tank walls or the parts being cleaned. Air agitated solvent baths may not be used.
    - (vii) Spills during solvent transfer shall be cleaned immediately. Sorbent material shall be immediately stored in covered containers.
    - (viii) Work area fans shall not blow across the opening of the degreaser unit.
    - (ix) The solvent level shall not exceed the fill line.
  2. The remote reservoir cold cleaning machine shall be equipped with a perforated drain with a diameter of not more than six inches. [06-096 CMR 130]

(20) **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]

**(21) 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]

**(22) Annual Emission Statement**

In accordance with *Emission Statements*, 06-096 CMR 137 (last amended July 6, 2004), the licensee shall annually report to the Department the information necessary to accurately update the State's emission inventory by means of:

- 1) A computer program and accompanying instructions supplied by the Department;  
or
- 2) A written emission statement containing the information required in 06-096 CMR 137.

Reports and questions should be directed to:

Attn: Criteria Emission Inventory Coordinator  
Maine DEP  
Bureau of Air Quality  
17 State House Station  
Augusta, ME 04333-0017

Phone: (207) 287-2437

The emission statement must be submitted by July 1 or as otherwise specified in 06-096 CMR 137.

**(23) Air Toxics Emission Statement**

If Vic Firth exceeds the thresholds for HAPs listed in Appendix A of 06-096 CMR 137 in an inventory year, in accordance with 06-096 CMR 137 the licensee shall report, no later than July 1 every three years (2005, 2008, 2011, etc.) or as otherwise stated in 06-096 CMR 137, the information necessary to accurately update the State's toxic air pollutants emission inventory in a format prescribed by the Department containing the information required in 06-096 CMR 137.

**Vic Firth Manufacturing, Inc.**  
**Penobscot County**  
**Newport, Maine**  
**A-334-71-D-N**

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**Departmental**  
**Findings of Fact and Order**  
**Air Emission License**  
**After-the-Fact**

Reports and questions should be directed to:

Attn: HAP Inventory Coordinator  
Maine DEP  
Bureau of Air Quality  
17 State House Station  
Augusta, ME 04333-0017

Phone: (207) 287-2437

[06-096 CMR 137]

- (24) Vic Firth 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                      DAY OF                      2007.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: \_\_\_\_\_  
DAVID P. LITTELL, 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: 8/29/07

Date of application acceptance: 8/31/07

Date filed with the Board of Environmental Protection: \_\_\_\_\_

This Order prepared by Lynn Ross, Bureau of Air Quality.