



DEPARTMENT ORDER

Fiber Materials Inc.  
York County  
Biddeford, Maine  
A-262-71-AA-M (SM)

Departmental  
Findings of Fact and Order  
Air Emission License  
Amendment #1

**FINDINGS OF FACT**

After review of the air emission license amendment application, staff investigation reports, and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 Maine Revised Statutes (M.R.S.) § 344 and § 590, the Maine Department of Environmental Protection (Department) finds the following facts:

**I. REGISTRATION**

A. Introduction

Fiber Materials Inc. (FMI) was issued Air Emission License A-262-71-Z-R on March 14, 2014, for the operation of emission sources associated with their carbon composite manufacturing facility.

FMI has requested a minor revision to their license in order to replace Boiler #4 with two new boilers (Boilers #4a and #4b).

The equipment addressed in this license amendment is located at 5 Morin Street, Biddeford, Maine.

B. Emission Equipment

The following equipment is addressed in this air emission license amendment:

**Boilers to be Removed**

Equipment	Max. Capacity (MMBtu/hr)	Maximum Firing Rate (scf/hr)	Fuel Type, % sulfur	Date of Install.
Boiler #4	2.95	2,896	natural gas, negligible	2000

**New Boilers**

Equipment	Max. Capacity (MMBtu/hr)	Maximum Firing Rate (scf/hr)	Fuel Type, % sulfur	Date of Install.
Boiler #4a	1.11	1,091	natural gas, negligible	2017
Boiler #4b	1.11	1,091	natural gas, negligible	2017

C. Application Classification

All rules, regulations, or statutes referenced in this air emission license refer to the amended version in effect as of the issued date of this license.

This amendment will not increase the facility's emissions of any pollutant. Therefore, this amendment is determined to be a minor revision 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 *Definitions Regulation*, 06-096 C.M.R. ch. 100. Separate control requirement categories exist for new and existing equipment.

BPT for new sources and modifications requires a demonstration that emissions are receiving Best Available Control Technology (BACT), as defined in *Definitions Regulation*, 06-096 C.M.R. ch. 100. BACT is a top-down approach to selecting air emission controls considering economic, environmental and energy impacts.

B. Boilers #4a and #4b

FMI has proposed replacing Boiler #4 with two new boilers (Boilers #4a and #4b). The new boilers are each rated at 1.11 MMBtu/hr and fire natural gas exclusively.

1. BACT Findings

The BACT emission limits for Boilers #4a and #4b were based on the following:

PM/PM <sub>10</sub>	–	0.05 lb/MMBtu based on 06-096 C.M.R. ch. 115, BACT
SO <sub>2</sub>	–	0.6 lb/MMscf based on AP-42 Table 1.4-2 dated 7/98
NO <sub>x</sub>	–	100 lb/MMscf based on AP-42 Table 1.4-1 dated 7/98
CO	–	84 lb/MMscf based on AP-42 Table 1.4-1 dated 7/98
VOC	–	5.5 lb/MMscf based on AP-42 Table 1.4-2 dated 7/98
Visible Emissions	–	06-096 C.M.R. ch. 115, BACT

The BACT emission limits for the boiler are the following:

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 #4a	0.06	0.06	–	0.11	0.09	0.01
Boiler #4b	0.06	0.06	–	0.11	0.09	0.01

Visible emissions from Boilers #4a and #4b shall not exceed 10% opacity on a six-minute block average basis.

2. New Source Performance Standards (NSPS): 40 C.F.R. Part 60, Subpart Dc

Due to their size, Boilers #4a and #4b are not subject to *Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units* 40 C.F.R. Part 60, Subpart Dc for units greater than 10 MMBtu/hr manufactured after June 9, 1989. [40 C.F.R. § 60.40c]

3. National Emission Standards for Hazardous Air Pollutants (NESHAP): 40 C.F.R. Part 63, Subpart JJJJJ

Gas-fired boilers are exempt from *National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources*, 40 C.F.R. Part 63, Subpart JJJJJ. In addition, hot water boilers less than 1.6 MMBtu/hr are covered under the hot water heater exemption. Therefore, Subpart JJJJJ is not applicable to Boilers #4a and #4b.

C. Annual Emissions

Total Annual Emissions

FMI shall be restricted to the following annual emissions, based on a 12-month rolling total. The tons per year limits were calculated based on:

- Use of the boilers for 8,760 hr/year
- Use of the generators for 100 hr/year
- Use of the burners in the Gehrlich retort ovens for 8,760 hr/year
- Use of the incinerators for 8,760 hr/year
- Emissions of SO<sub>2</sub> from the burning of natural gas are assumed to be negligible.

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

	PM	PM <sub>10</sub>	NO <sub>x</sub>	CO	VOC
Boiler #1	0.4	0.4	0.7	0.6	0.1
Boiler #4a	0.2	0.2	0.5	0.4	—
Boiler #4b	0.2	0.2	0.5	0.4	—
Bldg 1-2 Gen	0.1	0.1	0.2	0.1	0.1
Bldg 3 Gen	0.1	0.1	0.5	0.1	0.1
Incinerator #1	0.4	0.4	1.4	0.6	0.1
Incinerator #2	0.4	0.4	1.4	0.6	0.1
Incinerator #3	0.4	0.4	1.4	0.6	0.1
Incinerator #4	0.4	0.4	1.4	0.6	0.1
Incinerator #5	0.3	0.3	1.3	0.5	0.1
Incinerator #6	0.3	0.3	1.3	0.5	0.1
Incinerator #7	0.2	0.2	0.6	0.3	0.1
Incinerator #8	0.2	0.2	0.6	0.3	0.1
Gehnrich #1 Burner	0.3	0.3	0.6	0.5	0.1
Gehnrich #2 Burner	0.3	0.3	0.6	0.5	0.1
Drying Ovens & Other Processes	—	—	—	—	13.7
<b>Total TPY</b>	<b>4.2</b>	<b>4.2</b>	<b>13.0</b>	<b>6.6</b>	<b>15.0</b>

Pollutant	Tons/Year
Individual HAP	9.9
Total HAP	24.9

**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, and
- will not violate applicable ambient air quality standards in conjunction with emissions from other sources.

The Department hereby grants Air Emission License Amendment A-262-71-AA-M subject to the conditions found in Air Emission License A-262-71-Z-R and the following conditions.

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

**SPECIFIC CONDITIONS**

The following shall replace Condition (16) of Air Emission License A-262-71-Z-R:

(16) **Boilers #1, #4a, and #4b**

- A. Boilers #1, #4a, and #4b shall fire only natural gas. [06-096 C.M.R. ch. 115, BACT]
- B. Emissions shall not exceed the following [06-096 C.M.R. ch. 115, BPT/BACT]:

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	0.08	0.08	—	0.16	0.14	0.01
Boiler #4a	0.06	0.06	—	0.11	0.09	0.01
Boiler #4b	0.06	0.06	—	0.11	0.09	0.01

- C. Visible emissions from Boilers #1, #4a, and #4b shall not exceed 10% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 115, BACT]

DONE AND DATED IN AUGUSTA, MAINE THIS 25 DAY OF September, 2017.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: Marc Allen Robert Cove for  
PAUL MERCER, COMMISSIONER

The term of this amendment shall be concurrent with the term of Air Emission License A-262-71-R-Z.

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: 9/20/17

Date of application acceptance: 9/25/17

Date filed with the Board of Environmental Protection:

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

