



DEPARTMENT ORDER

**Fiber Materials Inc.  
York County  
Biddeford, Maine  
A-262-71-AB-M**

**Departmental  
Findings of Fact and Order  
Air Emission License  
Amendment #2**

**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 20, 2014, for the operation of emission sources associated with their carbon composite manufacturing facility. The license was subsequently amended on September 25, 2017 (A-262-71-AA-M).

FMI has requested a minor revision to their license in order to replace one pair of their impregnation vessels with new, like-kind equipment.

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:

**Process Equipment**

<b>Equipment</b>	<b>Number of Units</b>	<b>Pollution Control Equipment</b>
Impregnation Vessels	5 pair*	Condenser/Coalescent Filters

\*Only one pair of vessels is being replaced with this revision.

C. Application Classification

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

This amendment will not increase licensed emissions of any pollutant. Therefore, this amendment is determined to be a minor revision and has been processed as such.

D. Facility Classification

With the facility-wide VOC and HAP limits the facility is licensed as follows:

- As a synthetic minor source of air emissions, because FMI is subject to license restrictions that keep facility emissions below major source thresholds for criteria pollutants; and
- As an area source of hazardous air pollutants (HAP), because the licensed emissions are below the major source thresholds for HAP.

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. Impregnation Vessels

FMI operates five pairs of impregnation vessels. One vessel in each pair is filled with pitch and is heated to approximately 300 °C to melt the pitch and reduce its viscosity to approximately the consistency of water. The other vessel in the pair, which contains the part (or "billet") to be impregnated, is also heated to approximately 300 °C. The air is evacuated from the vessel containing the billet, and the pitch is pumped from the melting vessel into the evacuated vessel.

The exhaust from the vacuum pump contains hydrocarbons. Exhaust emissions from the vacuum pump are controlled by a condenser followed by a coalescent filter, with a 99.9% overall collection and control efficiency. The condenser is a three-foot-tall chamber with baffle plates, trapping hydrocarbons which are driven off the pitch. The coalescent filter

captures oil fumes generated in the vacuum pump. Both the condenser and filter are drained periodically.

FMI has proposed replacing one of their five impregnation vessel pairs with a new pair with the same maximum material processing capacity, functionality, and cycle time as the original pair. The new equipment will be exhausted to the existing condenser and coalescent filter which will be maintained to achieve a collection and control efficiency of 99.9%.

BACT for the new impregnation vessel pair is determined to be continued use and maintenance of the existing condenser and coalescent filter to meet a collection and control efficiency of 99.9%.

C. Annual Emissions

This amendment will not result in any changes to licensed emissions.

**III. AMBIENT AIR QUALITY ANALYSIS**

The level of ambient air quality impact modeling required for a minor source is determined by the Department on a case-by case basis. In accordance with 06-096 C.M.R. ch. 115, an ambient air quality impact analysis is not required for a minor source if the total licensed annual emissions of any pollutant released do not exceed the following levels and there are no extenuating circumstances:

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

The total licensed annual emissions for the facility are below the emission levels contained in the table above and there are no extenuating circumstances; therefore, an ambient air quality impact analysis is not required as part of this license amendment.

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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-AB-M subject to the conditions found in Air Emission License A-262-71-Z-R, in amendment A-262-71-AA-M, 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 are New Conditions:

- (30) FMI is licensed to install and operate one new pair of impregnation vessels subject to the same requirements and conditions as the existing impregnation vessels.  
[06-096 C.M.R. ch. 115, BACT]

DONE AND DATED IN AUGUSTA, MAINE THIS 29<sup>th</sup> DAY OF May, 2019.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY:   
GERALD D. REID, COMMISSIONER

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

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: 5/14/19

Date of application acceptance: 5/20/19

Date filed with the Board of Environmental Protection:

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

