



STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION



PAUL R. LEPAGE
GOVERNOR

PATRICIA W. AHO
COMMISSIONER

**Insulsafe Textiles, Inc.
Androscoggin County
Lewiston, Maine
A-1092-71-A-N**

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

FINDINGS OF 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 Maine Revised Statutes Annotated (M.R.S.A.), §344 and §590, the Maine Department of Environmental Protection (the Department) finds the following facts:

I. REGISTRATION

A. Introduction

Insulsafe Textiles, Inc. (Insulsafe) has applied for an Air Emission License permitting the operation of emission sources associated with their textile manufacturing facility.

The equipment addressed in this license is located at 55 Holland Street, Lewiston, Maine.

B. Emission Equipment

The following equipment is addressed in this air emission license:

Equipment	Max. Capacity (MMBtu/hr)	Max. Firing Rate (scf/hr)	Fuel Type, % sulfur	Date of...		Stack #
				Manufacture	Installation	
Boiler #1	10.5	10,294	Natural Gas (negligible)	1987	1990	1

C. Application Classification

Insulsafe is classified as an existing source that is applying for its first air emission license, after the fact. 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 (as amended).

AUGUSTA
17 STATE HOUSE STATION
AUGUSTA, MAINE 04333-0017
(207) 287-7688 FAX: (207) 287-7826
RAY BLDG., HOSPITAL ST.

BANGOR
106 HOGAN ROAD, SUITE 6
BANGOR, MAINE 04401
(207) 941-4570 FAX: (207) 941-4584

PORTLAND
312 CANCO ROAD
PORTLAND, MAINE 04103
(207) 822-6300 FAX: (207) 822-6303

PRESQUE ISLE
1235 CENTRAL DRIVE, SKYWAY PARK
PRESQUE ISLE, MAINE 04769
(207) 764-0477 FAX: (207) 760-3143

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 equipment, for existing equipment, and 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 *Definitions Regulation*, 06-096 CMR 100 (as amended). BACT is a top-down approach to selecting air emission controls considering economic, environmental, and energy impacts.

Insulsafe fabricates textiles for a variety of industrial applications. All components of the manufacturing process are vented inside the building, resulting in no emissions to the atmosphere. The facility operates a boiler for steam and heat for the facility and the manufacturing process.

B. Boiler #1

Boiler #1 was manufactured in 1987 with a maximum design capacity of 10.5 MMBtu/hour. It is, therefore, not subject to EPA's New Source Performance Standards (NSPS) Subpart Dc, for boilers with a heat input of 10 MMBtu/hour or greater and manufactured after July 9, 1989. The unit fires natural gas and exhausts through its own stack, Stack #1.

1. BACT/BPT Findings

The BACT/BPT emission limits for Boiler #1 were based on the following:

Natural Gas (fuel heat capacity factor of 1020 Btu/scf)

- PM, PM₁₀ – 0.05 lb/MMBtu based on 06-096 CMR 115, BPT
- SO₂ – 0.6 lb/MMscf based on AP-42, Table 1.4-2, dated 7/98
- NO_x – 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
- Opacity – 06-096 CMR 101

The BACT/BPT emission limits for Boiler #1 are the following:

<u>Unit</u>	<u>PM</u> <u>(lb/hr)</u>	<u>PM₁₀</u> <u>(lb/hr)</u>	<u>SO₂</u> <u>(lb/hr)</u>	<u>NO_x</u> <u>(lb/hr)</u>	<u>CO</u> <u>(lb/hr)</u>	<u>VOC</u> <u>(lb/hr)</u>
Boiler #1	0.53	0.53	0.01	1.03	0.86	0.06

Visible emissions from Boiler #1 shall not exceed 10% opacity on a six-minute block average basis, except for no more than one six-minute block average in a three-hour period. [06-096 CMR 101(2)(B)(1)(c)]

2. Periodic Monitoring

Periodic monitoring for Boiler #1 shall include recordkeeping to document fuel use on a calendar year basis. [06-096 CMR 115, BACT/BPT]

3. National Emission Standards for Hazardous Air Pollutants (NEHSHAP):
40 CFR Part 63 Subpart JJJJJ

Boiler #1 is a gas-fired boiler, as defined in 40 CFR §63.11237, that is located at or is part of an area source of HAP, as defined in 40 CFR §63.2. As such, this unit is not subject to the requirements of 40 CFR Part 63, Subpart JJJJJ, *National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources*. [40 CFR § 63.11195 (e)]

C. Annual Emissions

1. Total Annual Emissions

Insulsafe shall be restricted to the following annual emissions per calendar year. The tons per year limits were calculated based on the maximum fuel input for the boiler.

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

	PM	PM₁₀	SO₂	NO_x	CO	VOC
Boiler #1	2.3	2.3	0.1	4.5	3.8	0.3
Total TPY	2.3	2.3	0.1	4.5	3.8	0.3

2. 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), are the aggregate group of the following gases: carbon dioxide, nitrous oxide, methane, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. For licensing purposes, greenhouse gases (GHG) are calculated and reported as carbon dioxide equivalents (CO₂e).

Based on 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, Insulsafe is below the major source threshold of 100,000 tons of CO₂e per year. Therefore, no additional licensing requirements are needed to address GHG emissions at this time.

III. AMBIENT AIR QUALITY ANALYSIS

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

Pollutant	Tons/Year
PM ₁₀	25
SO ₂	50
NO _x	50
CO	250

The total facility licensed emissions 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.

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 A-1092-71-A-N subject to the following conditions.

Severability. The invalidity or unenforceability of any provision of this License or part thereof 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 emissions 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 emissions 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 continuous 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 provision in the State Implementation Plan approved by the EPA or Section 114(a) of the Clean Air Act (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 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 emissions 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 government 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. Fuel

1. Boiler #1 shall fire natural gas only. [06-096 CMR 115, BPT]

2. Insulsafe shall document fuel use in Boiler #1 on a calendar year basis. [06-096 CMR 115, BACT/BPT]

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

Insulsafe Textiles, Inc.
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<u>Unit</u>	<u>PM (lb/hr)</u>	<u>PM₁₀ (lb/hr)</u>	<u>SO₂ (lb/hr)</u>	<u>NO_x (lb/hr)</u>	<u>CO (lb/hr)</u>	<u>VOC (lb/hr)</u>
Boiler #1 (10.5 MMBtu/hr) natural gas	0.53	0.53	0.01	1.03	0.86	0.06

Visible emissions from Boiler #1 shall not exceed 10% opacity on a six-minute block average basis, except for no more than one six-minute block average in a three-hour period. [06-096 CMR 101(2)(B)(1)(c)]

- (17) Insulsafe 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 30 DAY OF December, 2013.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: Marc Allen Robert Cone for
PATRICIA W. AHO, COMMISSIONER

The term of this license shall be ten (10) years from the signature date above.

[Note: If a renewal application is submitted prior to expiration of this license and is determined by the Department as complete, then pursuant to Title 5 MRSA §10002, all terms and conditions of the license shall remain in effect until the Department takes final action on the air emission license renewal application.]

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: December 2, 2013

Date of application acceptance: December 2, 2013

Date filed with the Board of Environmental Protection:

This Order prepared by Jane E. Gilbert, Bureau of Air Quality.

