



DEPARTMENT ORDER

Pike Industries, Inc.
Penobscot County
Hermon, Maine
A-776-71-M-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 (the Department) finds the following facts:

I. REGISTRATION

A. Introduction

Pike Industries, Inc. (Pike) was issued Air Emission License A-776-71-L-R/A on April 15, 2016, for the operation of emission sources associated with their hot mix asphalt plant located at 1048 Odlin Road, Hermon, Maine.

Pike has requested a minor revision to their license in order to add liquefied petroleum gas (LPG) as a licensed fuel for Asphalt Batch Plant (P817) and Hot Oil Heater P817-HOH.

The main office is located at 95 Warren Avenue, Westbrook, Maine.

B. Emission Equipment

The following equipment is addressed in this Air Emission License Amendment:

Asphalt Plant

<u>Equipment</u>	<u>Process Rate</u> (tons/hour)	<u>Design Capacity</u> (MMBtu/hr)	<u>Fuel Type,</u> <u>% sulfur</u>	<u>Control</u> <u>Device</u>	<u>Date of</u> <u>Manuf.</u>
Asphalt Batch Plant (P817)	220	35	Distillate fuel, 0.5%	Baghouse	1970
			Residual fuel, 0.5%		
			Specification waste oil, 0.7%		
			Natural gas, negl.		
			LPG, negl.		

Heating Equipment

Equipment	Max. Capacity (MMBtu/hr)	Fuel Type, % sulfur	Date of Manuf.
P817-HOH* (Hot Oil Heater)	0.9	Distillate fuel, 0.5%	2000
		Residual fuel, 0.5%	
		Specification waste oil, 0.7%	
		Natural gas, negl.	
		LPG, negl.	

*Considered as an insignificant activity per 06-096 C.M.R. ch. 115, Appendix B, based on the size of the unit; included for inventory purposes only. This unit may still be subject to the requirements of *Visible Emissions Regulation*, 06-096 C.M.R. ch. 101 and *Low Sulfur Fuel Regulation*, 06-096 C.M.R. ch. 106.

C. Definitions

Virgin Oil means any petroleum derived oil, including petroleum fuels, unused motor oils, hydraulic fluids, lubrication oils and other industrial oils, that are not characterized as waste oil.

D. 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 emissions of any pollutant. Therefore, this amendment is determined to be a minor revision and has been processed as such.

II. **BEST PRACTICAL TREATMENT**

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 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. Asphalt Batch Plant (P817)

Asphalt Batch Plant (P817) is currently licensed to fire distillate fuel with a maximum sulfur content of 0.5% by weight, residual fuel with a maximum sulfur content of 0.5% by weight, specification waste oil with a maximum sulfur content of 0.7% by weight, and natural gas. Pike has requested to add LPG as a fuel for Asphalt Batch Plant (P817). The Department has determined that no additional controls or restrictions are appropriate when firing LPG and that the following emission limits constitute BACT when firing LPG in Asphalt Batch Plant (P817).

1. BACT Findings

The BACT emission limits for Asphalt Batch Plant (P817) when firing LPG were based on the following:

PM, PM ₁₀	0.03 gr/dscf and the use of a baghouse
SO ₂	– 0.0046 lb/ton based on AP-42 Table 11.1-5 dated 3/04
NO _x	– 0.025 lb/ton based on AP-42 Table 11.1-5 dated 3/04
CO	– 0.40 lb/ton based on AP-42 Table 11.1-5 dated 3/04
VOC	– 0.0082 lb/ton based on AP-42 Table 11.1-6 dated 3/04
Visible Emissions	– 06-096 C.M.R. ch. 101

The BACT emission limits for Asphalt Batch Plant (P817) when firing LPG 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>
Asphalt Batch Plant (P817) LPG	7.5	7.5	1.0	5.5	88.0	1.8

Visible emissions from the Asphalt Batch Plant (P817) baghouse shall not exceed 20% opacity on a six-minute block average basis, except for no more than two six-minute block averages in a continuous three-hour period, during which time visible emissions shall not exceed 60% opacity. This is consistent with the PM limit contained in *Standards of Performance for Hot Mix Asphalt Facilities*, 40 C.F.R. Part 60, Subpart I of 20% opacity.

General process emissions from the Asphalt Batch Plant (P817) shall be controlled so as to prevent visible emissions in excess of 20% opacity on a six-minute block average basis.

2. Contaminated Soils

Pike may process up to 5,000 cubic yards per year of soil contaminated with virgin oil as defined in this amendment without prior approval from the Department's Bureau of Air Quality. Processing of virgin oil contaminated soils may require a solid waste processing facility license under Maine Solid Waste Management Rules, 06-096 C.M.R. ch. 409. The material shall be handled in accordance with the requirements of the Department's Bureau of Remediation and Waste Management.

C. Annual Emissions

This amendment does not affect the facility's licensed annual emissions because there will be no increase in emission limits or asphalt throughput.

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 Amendment A-776-71-M-M, subject to the conditions found in Air Emission License A-776-71-L-R/A and the following condition.

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 Condition shall replace Condition (16) of Air Emission License A-776-71-L-R/A (dated April 15, 2016):

(16) Asphalt Batch Plant (P817)

A. Fuel Use

1. Asphalt Batch Plant (P817) is licensed to fire distillate fuel with a maximum sulfur content of 0.5% by weight, residual fuel with a maximum

- sulfur content of 0.5% by weight, specification waste oil with a maximum sulfur content of 0.7% by weight, natural gas, and LPG. [06-096 C.M.R. ch. 115, BPT]
2. Prior to July 1, 2018, distillate fuel fired at the facility shall not exceed a maximum sulfur content of 0.5% by weight. [06-096 C.M.R. ch. 115, BPT]
 3. Beginning July 1, 2018, Pike shall not purchase or otherwise obtain distillate fuel with a maximum sulfur content that exceeds 0.0015% by weight (15 ppm) for use in Asphalt Batch Plant (P817). [06-096 C.M.R. ch. 115, BPT]
 4. Compliance shall be demonstrated by fuel records from the supplier showing the type and percent sulfur of the fuel delivered. [06-096 C.M.R. ch. 115, BPT]
- B. The annual throughput of Asphalt Batch Plant (P817) shall not exceed 300,000 tons of asphalt per year on a 12-month rolling total basis. Records of asphalt production shall be kept on a monthly and 12-month rolling total basis. [06-096 C.M.R. ch. 115, BPT]
- C. Emissions from Asphalt Batch Plant (P817) shall vent to a baghouse, and all components of Asphalt Batch Plant (P817) shall be maintained so as to prevent PM leaks. [06-096 C.M.R. ch. 115, BPT]
- D. The performance of the Asphalt Batch Plant (P817) baghouse shall be monitored by either one of the following at all times Asphalt Batch Plant (P817) is operating [06-096 CMR 115, BPT]:
1. PM detector – when the detector signals excessive PM concentrations in the exhaust stream, Pike shall take corrective action within 24 hours, or immediately if opacity exceeds 20%.
 2. Personnel with a current EPA Method 9 visible emissions certification – when the opacity exceeds 20%, the asphalt plant is operating with insufficient control and corrective action shall be taken immediately.
- E. To document maintenance of the baghouse, the licensee shall keep maintenance records recording the date and location of all bag failures as well as all routine maintenance and inspections. The maintenance and inspection records shall be kept on-site at the asphalt plant location. [06-096 CMR 115, BPT]

F. Emissions from the Asphalt Batch Plant (P817) baghouse shall not exceed the following [06-096 C.M.R. ch. 115, BPT and 06-096 C.M.R. ch. 115, BACT]:

Pollutant	grs/dscf	lb/hr Distillate fuel, residual fuel, spec. waste oil	lb/hr Natural gas, LPG
PM	0.03	7.5	7.5
PM ₁₀	-	7.5	7.5
SO ₂	-	19.4	1.0
NO _x	-	26.4	5.5
CO	-	88.0	88.0
VOC	-	7.9	1.8

- G. Visible emissions from the baghouse is limited to no greater than 20% opacity on a six-minute block average basis, except for no more than two six-minute block averages in a continuous three-hour period, during which time visible emissions shall not exceed 60% opacity. [06-096 C.M.R. ch. 115, BACT]
- H. General process emissions from the hot mix asphalt plant shall be controlled so as to prevent visible emissions in excess of 20% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 115, BACT]
- I. Pike may process up to 10,000 cubic yards per year of soil contaminated by gasoline or distillate fuel without prior approval from the Department. This limit may be exceeded with written authorization from the Department. The plant owner or operator shall notify the Department (regional inspector) at least 24 hours prior to processing the contaminated soil and specify the contaminating fuel and quantity, origin of the soil and fuel and the disposition of the contaminated soil. [06-096 CMR 115, BPT]
- J. Facility may process up to 5,000 cubic yards per year of soil contaminated with virgin oil as defined by the Bureau of Air Quality without prior approval from the Bureau of Air Quality. Processing of virgin oil contaminated soils may require a solid waste processing facility license under 06-096 C.M.R. ch. 409. The material shall be handled in accordance with the requirements of the Department's Bureau of Remediation and Waste Management. [06-096 C.M.R. ch. 115, BPT]
- K. Pike shall not process soils which are classified as hazardous waste or which have unknown contaminants. [06-096 CMR 115, BPT]

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L. When processing contaminated soils, Pike shall maintain records which specify the quantity and type of contaminant in the soil as well as the origin and characterization of the contaminated soil. In addition, when processing contaminated soil, Pike shall maintain records of processing temperature, asphalt feed rates and dryer throughput on an hourly basis. The material shall be handled in accordance with the requirements of the Bureau of Remediation and Waste Management. [06-096 CMR 115, BPT]

DONE AND DATED IN AUGUSTA, MAINE THIS 30 DAY OF June, 2017.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: *Paul Mercer*
PAUL MERCER, COMMISSIONER

The term of this amendment shall be concurrent with the term of Air Emission License A-776-71-L-R/A.

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: 4/28/2017

Date of application acceptance: 5/2/2017

Date filed with the Board of Environmental Protection:

This Order prepared by Jonathan E. Rice, Bureau of Air Quality.

