



DEPARTMENT ORDER

**Pike Industries, Inc.
 Somerset County
 Anson, Maine
 A-486-71-N-M (SM)**

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

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

Pike Industries, Inc. (Pike) was issued Air Emission License A-486-71-M-R/A on March 15, 2016, for the operation of emission sources associated with their portable asphalt drum mix plant located at their Anson facility.

Pike has requested a minor revision to their license in order to add liquefied petroleum gas (LPG) as a licensed fuel for portable asphalt drum mix plant (P719) and the hot oil heater.

The equipment addressed in this license amendment is located on Starks Road in Anson, ME.

B. Emission Equipment

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

Asphalt Plant

Equipment	Process Rate (tons/hr)	Design Capacity (MMBtu/hr)	Fuel Type, % sulfur	Control Device	Date of Manuf.
Portable Asphalt Drum Mix Batch Plant (P719)	300	75.0	Distillate Fuel, 0.5%	Baghouse	2005
			#4 Fuel Oil, 0.5%		
			Specification Waste Oil, 0.7%		
			LPG, negl.		

Heating Equipment

Equipment	Max. Input Capacity (MMBtu/hr)	Fuel Type, % sulfur	Firing Rate	Date of Manuf.
Hot Oil Heater	2.2	Distillate Fuel, 0.5%	15.5 gph	2005
		#4 Fuel Oil, 0.5%		
		Specification Waste Oil, 0.7%		
		LPG, negl.	23.4 gph	

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 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. Portable Asphalt Drum Mix Batch Plant (P719)

Asphalt Batch Plant (P719) is currently licensed to fire distillate fuel with a maximum sulfur content of 0.5% by weight, #4 fuel oil with a maximum sulfur content of 0.5% by weight, and specification waste oil with a maximum sulfur content of 0.7% by weight. Pike has requested to add LPG as a fuel for Asphalt Batch Plant (P719). 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 (P719).

BACT Findings

The BACT emission limits for Asphalt Batch Plant (P719) when firing LPG were based on the following:

LPG

- PM/PM₁₀ – 0.03 gr/dscf and the use of a baghouse
- SO₂ – 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. 115, BACT

The BACT emission limits for Asphalt Batch Plant (P719) when firing LPG are the following:

<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>
Asphalt Batch Plant (P719) LPG	3.75	3.75	1.02	7.80	39.00	9.60

Visible emissions from the Asphalt Batch Plant (P719) 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 emission shall not exceed 60% opacity. This is consistent with the PM limit of 20% opacity that is contained in *Standards of Performance for Hot Mix Asphalt Facilities*, 40 C.F.R. Part 60, Subpart I.

C. Hot Oil Heater

The Hot Oil Heater is currently licensed to fire distillate fuel and #4 fuel, each with a maximum sulfur content of 0.5% by weight. Additionally, it is licensed to fire specification waste oil with a maximum sulfur content of 0.7%. Pike has requested to add LPG as a fuel for the Hot Oil Heater. 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 the Hot Oil Heater.

BACT Findings

The BACT emission limits for the Hot Oil Heater when firing LPG were based on the following:

LPG

- PM, PM₁₀ - 0.05 lb/MMBtu, 06-096 C.M.R. ch. 115, BACT
- SO₂ - 0.018 lb/10³ gal, AP-42 Table 1.5-1 dated 07/08, using 0.18 gr/100 ft³ as sulfur content for LPG
- NO_x - 13 lb/10³ gal, based on AP-42 Table 1.5-1 dated 07/08
- CO - 7.5 lb/10³ gal, based on AP-42 Table 1.5-1 dated 07/08
- VOC - 1.0 lb/10³ gal, based on AP-42 Table 1.5-1 dated 07/08
- Visible Emissions - 06-096 C.M.R. ch. 115, BACT

The BACT emission limits for the Hot Oil Heater when firing LPG are the following:

<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>
Hot Oil Heater	0.11	0.11	0.01	0.30	0.18	0.02

While firing LPG, visible emissions from the Hot Oil Heater shall not exceed 10% opacity on a six-minute block average basis.

D. General Process Emissions

General process emissions from the Asphalt Batch Plant (P719) shall be controlled so as to prevent visible emissions in excess of 20% opacity on a six-minute block average basis.

E. 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, 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-486-71-N-M subject to the conditions found in Air Emission License A-486-71-M-R/A 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 condition shall replace Condition (16) of Air Emission License A-486-71-M-R/A (dated March 15, 2016):

(16) Asphalt Batch Plant (P719)

A. Fuel Use

1. P719 is licensed to fire distillate fuel and #4 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 LPG. [06-096 C.M.R. ch. 115, BPT and BACT]
2. Beginning July 1, 2018, any distillate fuel fired in P719 shall have maximum sulfur content not to exceed 0.0015% by weight (15 ppm) except that any existing distillate fuel purchased or otherwise obtained by Pike prior to July 1, 2018 may be used until depleted. [06-096 C.M.R. ch. 115, BPT]
3. Compliance shall be demonstrated by fuel records from the supplier showing the quantity, type, and the percent sulfur of the fuel delivered. Records of annual fuel use shall be kept on a monthly and 12-month rolling total basis. [06-096 C.M.R. ch. 115, BPT]

- B.** The annual throughput of P719 shall not exceed 400,000 tons of asphalt per year on a twelve-month rolling-total basis. Records of asphalt production shall be kept on a monthly and twelve-month rolling-total basis. [06-096 C.M.R. ch. 115, BPT]

- C. Emissions from P719 shall vent to a baghouse, and all components of the asphalt plant shall be maintained so as to prevent PM leaks. [06-096 C.M.R. ch. 115, BPT]
- D. The performance of the baghouse shall be constantly monitored by either one of the following at all times P719 is operating [06-096 C.M.R. ch. 115, BPT]:
1. PM Detector – When the detector signals excessive PM concentrations in the exhaust stream, Pike shall take corrective action within twenty-four 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, Pike shall keep maintenance records recording the date and location of all bag failures as well as all routine maintenance. The maintenance records shall be kept on-site at the asphalt plant location. [06-096 C.M.R. ch. 115, BPT]
- F. While P719 asphalt batch plant is firing distillate fuel, #4 oil or specification waste oil, or any combination thereof, the emissions from P719 baghouse shall not exceed the following [06-096 C.M.R. ch. 115, BPT]:

Pollutant	gr/dscf	lb/hr
PM	0.03	8.7
PM ₁₀		8.7
SO ₂		3.3
NO _x		16.5
CO		39.0
VOC		9.6

- G. While P719 asphalt batch plant is firing LPG, the emissions from P719 baghouse shall not exceed the following [06-096 C.M.R. ch. 115, BACT]:

Pollutant	gr/dscf	lb/hr
PM	0.03	8.7
PM ₁₀		8.7
SO ₂		1.0
NO _x		7.8
CO		39.0
VOC		9.6

- H. While firing distillate fuel, #4 fuel or specification waste oil, or any combination thereof, visible emissions from the P719 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. [06-096 C.M.R. ch. 101, BPT]

- I. While firing LPG in P719 asphalt batch plant, visible emissions from the P719 baghouse is limited to no greater than 10% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 101, BACT]

- J. General process emissions from P719 shall be controlled so as to prevent visible emissions in excess of 20% opacity on a six-minute block average basis except for no more than one six-minute block average in a one-hour period. [06-096 C.M.R. ch. 101, BPT]

- K. Pike may process up to 10,000 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 Bureau of Remediation and Waste Management. [06-096 C.M.R. ch. 115, BPT]

- L. Pike shall not process soils which are classified as hazardous waste or which have unknown contaminants. [06-096 C.M.R. ch. 115, BPT]

- M. 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 C.M.R. ch. 115, BPT]

- N. Pike shall notify the Department regional inspector at least twenty-four 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 C.M.R. ch. 115, BPT]

The following condition shall replace Condition (19) of Air Emission License A-486-71-M-R/A (dated March 15, 2016):

(19) Hot Oil Heater

A. Fuel

1. The Hot Oil Heater is licensed to fire distillate fuel and #4 fuel with a maximum sulfur content of 0.5% by weight, specification waste oil with a sulfur content not to exceed 0.7% by weight, and Liquefied Petroleum Gas (LPG). [06-096 C.M.R. ch. 115, BPT and BACT]
2. Beginning July 1, 2018, any distillate fuel fired in the Hot Oil Heater shall have a maximum sulfur content not to exceed 0.0015% by weight (15 ppm) except that any existing distillate fuel purchased or otherwise obtained by Pike prior to July 1, 2018 may be used until depleted. [06-096 C.M.R. ch. 115, BPT]
3. Compliance shall be demonstrated by fuel records from the supplier showing the quantity, type, and percent sulfur of the fuel delivered. Records of annual fuel use shall be kept on a monthly and twelve-month rolling-total basis. [06-096 C.M.R. ch. 115, BPT]

- B. When firing distillate fuel, #4 fuel or specification waste oil, or any combination thereof, emissions from the Hot Oil Heater shall not exceed the following:

Equipment	Pollutant	lb/MMBtu	Origin and Authority
Hot Oil Heater	PM	0.12	06-096 C.M.R. ch. 103, BPT

- C. While firing distillate fuel, #4 fuel or specification waste oil, or any combination thereof, emissions from the Hot Oil Heater shall not exceed the following [06-096 C.M.R. ch. 115, BPT]:

Equipment	PM (lb/hr)	PM₁₀ (lb/hr)	SO₂ (lb/hr)	NO_x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Hot Oil Heater	0.26	0.26	1.55	0.31	0.08	0.01

- D. When firing LPG, emissions from the Hot Oil Heater shall not exceed the following:

Equipment	Pollutant	lb/MMBtu	Origin and Authority
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Hot Oil Heater	PM	0.05	06-096 C.M.R. ch. 115, BACT
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E. While firing LPG, emissions from the Hot Oil Heater shall not exceed the following [06-096 C.M.R. ch. 115, BACT]:

<u>Equipment</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>
Hot Oil Heater	0.11	0.11	0.01	0.30	0.18	0.02

F. While firing distillate fuel, #4 fuel or specification waste oil, or any combination thereof, visible emissions from the Hot Oil Heater shall not exceed 20% opacity on a six-minute block average basis, except for one six-minute block average in a three-hour period. [06-096 C.M.R. ch. 101]

G. While firing LPG, visible emissions from the Hot Oil Heater 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 5 DAY OF December, 2017.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: Marc Allen Robert Corne for
PAUL MERCER, COMMISSIONER

The term of this amendment shall be concurrent with the term of Air Emission License A-486-71-M-R/A.

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: April 28, 2017

Date of application acceptance: May 2, 2017

Date filed with the Board of Environmental Protection:

This Order prepared by Patric J. Sherman, Bureau of Air Quality.

