



STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

JOHN ELIAS BALDACCI
GOVERNOR

BETH NAGUSKY
ACTING COMMISSIONER

PIKE INDUSTRIES, INC.)
KENNEBEC COUNTY) DEPARTMENTAL
AUGUSTA, MAINE) FINDINGS OF FACT AND ORDER
A-247-71-L-R (SM)) AIR EMISSION LICENSE

After review of the air emission license application, staff investigation reports, and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 M.R.S.A., Section 344 and Section 590, the Department finds the following facts:

I. REGISTRATION

A. Introduction

Pike Industries, Inc. (Pike) located in Augusta, Maine has applied to renew their Air Emission License, permitting the operation of their portable hot mix asphalt batch plant (P712).

B. Emission Equipment

Asphalt Batch Plant (P712):

Equipment	Process Rate (tons/hour)	Design Capacity Firing Rate	Control Devices	Stack ID	Date of Manufacture
(P712) Rotary Kiln	250	110 MMBtu/hr, 790 gal/hr, #2 fuel, #4, #6, and/or spec. waste oil	baghouse	#1	1966

Pike also operates a hot oil heater rated at 2.2 MMBtu/hr based on a maximum firing rate of 16 gallons per hour firing #2, #4, #6 and/or spec. waste oil.

C. Application Classification

The application for Pike does not include the licensing of increased emissions or the installation of new or modified equipment, therefore the license is considered to be a renewal of current licensed emissions units only per Major and Minor Source Air Emission License Regulations, 06-096 CMR 115. With the fuel limit on the asphalt plant and heater, the facility is licensed below the major source thresholds and is considered a synthetic minor.

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 04679-2094
(207) 764-0477 FAX: (207) 760-3143

II. BEST PRACTICAL TREATMENT

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 06-096 CMR 100 of the Bureau of Air Quality regulations. BPT for new units consists of meeting Best Available Control Technology (BACT).

BPT for existing emissions equipment means that method which controls or reduces emissions to the lowest possible level considering:

- the existing state of technology;
- the effectiveness of available alternatives for reducing emissions from the source being considered; and
- the economic feasibility for the type of establishment involved.

A. Asphalt Batch Plant

Pike operates a Portable Hot Mix Asphalt (HMA) Batch Plant designated as **P712**, for the production of asphalt at their Augusta, Maine facility. The rotary kiln was manufactured in 1966 and is therefore not subject to EPA New Source Performance Standards (NSPS) Subpart I for Hot Mix Asphalt Facilities manufactured after June 11, 1973, however, Pike performed a performance test in accordance with 40 CFR 60.8 and 40 CFR 60.93. The performance testing was undertaken on September 26-27, 1990. The results indicated a particulate matter emission rate of 0.0142 grains per dry standard cubic foot (gr/dscf), showing compliance with the facility's air emission license.

The asphalt batch plant can fire #2 fuel oil which meets the criteria of ASTM D396 for #2 fuel oil, #4 oil, #6 oil, and/or specification waste oil with a sulfur content not to exceed 0.5% by weight. Facility-wide fuel use shall not exceed 345,000 gal/year based on a 12-month rolling total basis. The asphalt batch plant includes a 100 ton per hour recycled asphalt processing (RAP) package. The RAP package is used to properly introduce recycled asphalt into the final asphalt product. The RAP package consists of a bin and associated conveyors from which the recycled asphalt is screened then conveyed and mixed with the feed to the asphalt kiln. Visible emissions from the RAP package shall be limited to no greater than 10% opacity on a six-minute block average.

To meet the requirements of Best Practical Treatment (BPT) for the control of particulate matter (PM) emissions, the batch mix asphalt plant shall vent to a baghouse. Opacity from the asphalt batch plant baghouse is limited to no greater than 20% on a six (6) minute block average basis, except for no more than two (2) six (6) minute block averages in a continuous 3-hour period.

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Based on the above asphalt batch process rate, the maximum emission rate from the baghouse shall be limited to 0.03 grs/dscf (6.7 lb/hr).

The performance of the baghouse shall be constantly monitored by either one of the following at all times the batch mix asphalt plant is operating:

- 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%.
- Personnel with a current EPA Method 9 visible emissions certification – when the opacity exceeds 20%, the hot mix asphalt plant is operating with insufficient control and corrective action shall be taken immediately.

General process emissions from the asphalt batch plant shall be controlled so as to prevent visible emissions in excess of 20% opacity on a six (6) minute block average basis except for no more than one (1) six (6) minute block average in a 1-hour period.

A summary of the BPT analysis for the Asphalt Batch Plant is as follows:

1. PM emissions shall not exceed 0.03 gr/dscf. PM10 emission limits are based on PM limits.
2. The firing of #2 fuel shall meet the criteria in ASTM D396 for #2 oil. The sulfur content of the #4 oil, #6 oil, and specification waste oil shall not exceed 0.5% sulfur by weight.
3. NOx, CO, and VOC emission limits are based upon AP-42 dated 3/04.
4. Visible Emissions from the Asphalt Batch Plant baghouse is limited to no greater than 20% opacity on a 6-minute block average, except for no more than two 6-minute block averages in a continuous 3-hour period.

B. Asphalt Storage-silo Hot oil Heater

The hot oil heater is used to keep the asphalt from congealing. The heater heats oil, which is in turn circulated through the silo imparting heat to the asphalt contained in the silo. The heater has a maximum design capacity rated at 2.2 MMBtu/hr based on the maximum fuel input of 16 gallons per hour. The heater can fire #2 fuel oil, #4 oil, #6 oil, and/or waste oil. The #2 fuel shall meet the criteria in ASTM D396 for #2 fuel oil and the #4, #6, and waste oil shall be limited to 0.5% sulfur content by weight. The fuel for the hot-oil heater comes from the same tank as the fuel for the plant and shall be included in the overall facility-wide fuel limit of 345,000 gallons per year (12-month rolling total).

A summary of the BPT analysis for the asphalt storage tank heater is as follows:

1. Particulate matter for the asphalt storage tank heater is based on 0.12 lb/MMBtu. PM10 emission limits are based on PM limits.
2. The #2 fuel shall meet the criteria specified in ASTM D396 for #2 oil. The #4, #6, and/or waste oil fuel fired in the asphalt storage tank heater is no greater than 0.5% sulfur by weight.
3. SO₂, NO_x, CO, and VOC emission rates are based on AP-42 data dated 10/98 for oil fired boilers firing #2 fuel oil (0.5% sulfur) and #4 fuel oil and waste oil (0.5% sulfur)
4. Visible emissions from the asphalt storage tank heater shall not exceed 10% on a 6-minute block average.

C. Stock Piles and Roadways

Visible emissions from a fugitive emission source shall not exceed an opacity of 20%, except for no more than five (5) minutes in any 1-hour period. Compliance shall be determined by an aggregate of the individual fifteen (15)-second opacity observations which exceed 20% in any one (1) hour.

D. General Process Emissions

Visible emissions from any general process shall not exceed an opacity of 20% opacity on a six (6) minute block average basis except for no more than one (1) six (6) minute block average in a 1-hour period.

E. Facility Emissions

Based on the process rate of 250 tons per hour of Hot Mix Asphalt (HMA), and total fuel use of 345,000 gallons/year (12 month rolling total) of #2 fuel, #4, and/or specification waste oil for the Asphalt Batch Plant and the hot-oil heater unit, the total allowable annual emissions for the facility are as follows:

Total Licensed Annual Ton/Year Emissions for the Facility

(used to calculate the annual license fee)

<u>Equipment</u>	<u>PM</u>	<u>PM₁₀</u>	<u>SO₂</u>	<u>NO_x</u>	<u>CO</u>	<u>VOC</u>
Asphalt Batch Plant (P712) & hot oil heater	1.3	1.3	12.2	6.6	22.0	0.8
TOTALS	1.3	1.3	12.2	6.6	22.0	0.8

III. AMBIENT AIR QUALITY ANALYSIS

According to 06-096 CMR 115, the level of air quality analyses required for a renewal source shall be determined on a case-by-case basis. Modeling and monitoring are not required of a renewal if the total emissions of any pollutant released do not exceed the following:

<u>Pollutant</u>	<u>TPY</u>
PM	25
PM ₁₀	25
SO ₂	50
NO _x	100
CO	250

Based on the total facility licensed emissions, Pike is below the emissions level required for modeling and monitoring.

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 A-247-71-L-R, subject to the following conditions.

Severability. The invalidity or unenforceability of any provision, or part thereof, of this License 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,

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conducting inspections, or examining and copying records relating to emissions.
[06-096 CMR 115]

- (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 38 M.R.S.A. § 353. [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]

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- (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 emission 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 emission 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 continuing 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

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demonstration of compliance under normal and representative process and operating conditions.

[06-096 CMR 115]

- (13) Notwithstanding any other provisions in the State Implementation Plan approved by the EPA or Section 114(a) of the 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 Part 70 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 emission 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 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) Asphalt Batch Plant

- A. Emissions from the asphalt batch plant shall vent to a baghouse, and all components of the asphalt batch plant shall be maintained so as to prevent PM leaks. [06-096 CMR 115, BPT]
- B. The performance of the baghouse shall be constantly monitored by either one of the following at all times the batch mix asphalt plant 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%.

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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.
- C. To document maintenance of the baghouse, the licensee shall keep a maintenance log recording the date and location of all bag failures as well as all routine maintenance. The maintenance log shall be kept on-site at the asphalt plant location. [06-096 CMR 115, BPT]
- D. Opacity from the baghouse is limited to no greater than 20% on a six (6) minute block average basis, except for no more than two (2) six (6) minute block averages in a continuous 3-hour period. [06-096 CMR 101]
- E. General process emissions from the asphalt batch plant shall be controlled so as to prevent visible emissions in excess of 20% opacity on a six (6) minute block average basis except for no more than one (1) six (6) minute block average in a 1-hour period. [06-096 CMR 101]
- F. Fuel use records and receipts for the asphalt batch plant shall be maintained for at least six years and made available to the Department upon request. A log shall also be maintained recording the quantity and analyzed test results of all specification waste oil in the dryer. [06-096 CMR 115, BPT]
- G. Pike shall be limited to the use of 345,000 gallons/year on a 12 month rolling total basis of ASTM D396 #2 fuel oil, #4 fuel oil, #6 oil, and/or specification waste oil, with a sulfur content not to exceed 0.5% in the asphalt batch plant. Emissions from the baghouse shall not exceed the following [06-096 CMR 115, BPT]:

Pollutant	grs/dscf	lb/hr
PM	0.03	5.8
PM ₁₀	-	5.8
SO ₂	-	55.4
NO _x	-	30.0
CO	-	100.1
VOC	-	3.8

(17) **Asphalt Storage-Silo Hot Oil Heater**

A. The fuel oil fired in the hot oil heater shall be ASTM D396 #2 oil, #4 oil (0.5% maximum sulfur content by weight), #6 oil (0.5%) or waste oil (0.5%), demonstrated by purchase records or certification from the supplier. The fuel fired in the hot-oil heater will be included in the total facility-wide fuel use limit of 345,000 gallons per year (12 month rolling total).

[06-096 CMR 115, BPT]

B. Emissions shall not exceed the following:

Equipment		PM	PM ₁₀	SO ₂	NO _x	CO	VOC
Heater #1	lb/hr	0.2	0.2	1.0	0.4	0.1	0.1

[06-096 CMR115, BPT]

C. Visible emissions from the heater shall not exceed 10% on a 6-minute block average. [MEDEP Chapter 101]

(18) **Stockpiles and Roadways**

Visible emissions from a fugitive emission source shall not exceed an opacity of 20%, except for no more than five (5) minutes in any 1-hour period. Compliance shall be determined by an aggregate of the individual fifteen (15)-second opacity observations which exceed 20% in any one (1) hour. [06-096 CMR 101]

(19) **General Process Sources**

Visible emissions from any general process shall not exceed an opacity of 20% opacity on a six (6) minute block average basis except for no more than one (1) six (6) minute block average in a 1-hour period. [06-096 CMR 115, BPT]

(20) **Equipment Relocation** [06-096 CMR 115, BPT]

A. Pike shall notify the Bureau of Air Quality, by a written notification at least 48 hours prior to relocation of any equipment carried on this license. Written notice may be sent by mail, facsimile (fax), or e-mail. Notification sent by mail shall be sent to the address below or to a Department Regional Office:

Attn: Relocation Notice
 Maine DEP
 Bureau of Air Quality
 17 State House Station
 Augusta, ME 04333-0017

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Equipment relocation notification can also be done on-line with e-notice at www.maine.gov/dep/air/compliance/forms/relocation.

The notification shall include the address of the equipment's new location, an identification of the equipment and the license number pertaining to the relocated equipment.

- B. Written notification shall also be made to the municipality where the equipment will be relocated, except in the case of an unorganized territory where notification will be made to the respective county commissioners.
- (21) Pike shall keep a copy of this Order on site, and have the operator(s) be familiar with the terms of this Order. [06-096 CMR 115, BPT]
- (22) Pike 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-C].

DONE AND DATED IN AUGUSTA, MAINE THIS 4th DAY OF January, 2011.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: James P. Brooks
BETH NAGUSKY, ACTING COMMISSIONER

The term of this license shall be five (5) years from the signature date above.

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: July 6, 2010
Date of application acceptance: July 22, 2010

Date filed with the Board of Environmental Protection:

This Order prepared by Edwin L. Cousins, Bureau of Air Quality



