

Pike Industries, Inc.
York County
Eliot, Maine
A-548-71-H-R/A (SM)

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Departmental
Findings of Fact and Order
Air Emission License

After review of the air emissions license renewal 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

1. Pike Industries, Inc. (Pike) of Lewiston, Maine has applied to renew their Air Emission License permitting the operation of emission sources associated with the Rocky Hill Quarry crushed stone and gravel facility (**C614**) located in Eliot, Maine.
2. This renewal will also include an amendment to update the facility's equipment inventory to include a diesel generator that was not previously listed as licensed equipment in the facility's air permit.

B. Emission Equipment

Pike is authorized to operate the following equipment:

Rock Crushers:

<u>Designation</u>	<u>Power Source</u>	<u>Date of Manufacture</u>	<u>Process Rate (tons/hr)</u>	<u>Control Device</u>
Primary Crusher	Electrical	1999	450	Spray Nozzles
Primary Screen	Electrical	1999	450	Spray Nozzles
Secondary Crusher	Electrical	1999	450	Spray Nozzles
Secondary Screen	Electrical	1999	450	Baghouse
Tertiary Crusher	Electrical	1999	375	Spray Nozzles
Tertiary Screen	Electrical	1999	375	Baghouse

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Electrical Generation Equipment

<u>Equipment</u>	<u>Maximum Capacity (MMBtu/hr)</u>	<u>Fuel Type, % Sulfur</u>	<u>Maximum Firing Rate (gal/hr)</u>
Cat Diesel #1	2.44	Diesel fuel, 0.05%	17.8

C. Application Classification

Pike is a licensed source with equipment that has not been addressed in the facility's previous air emissions licenses. The license renewal shall include the operation of the previously unlisted equipment. Therefore, the application for Pike is considered to be a renewal and amendment.

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 Chapter 100 of the Department regulations. Separate control requirement categories exist for new and existing equipment as well as for those sources located in designated non-attainment areas.

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 emission from the source being considered; and
- the economic feasibility for the type of establishment involved.

BPT for new sources and modifications requires a demonstration that emissions are receiving Best Available Control Technology (BACT), as defined in Chapter 100 of the Air Regulations. BACT is a top-down approach to selecting air emission controls considering economic, environmental and energy impacts.

B. Rock Crushers

Pike operates primary, secondary and tertiary rock crushers at their Eliot facility. The primary and secondary rock crushers each have a maximum designed process rate of 450 tons per hour (ton/hr). The tertiary rock crusher has a maximum design process rate of 375 tons/hr.

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The three rock crushers were each manufactured in 1999, therefore, the facility's crushers are subject to EPA's NSPS Subpart OOO for Nonmetallic Mineral Processing Plants manufactured after August 31, 1983, with capacities greater than 150 tons/hr for portable plants and greater than 25 tons/hr for non-portable plants and Pike shall comply with the testing and record keeping requirements of NSPS Subpart OOO.

Pike Industries, Inc. shall have an initial performance test performed on the primary, secondary and tertiary crushers per the applicable sections of 40 CFR Part 60, Subpart OOO, §60.675. This consists of a certified Method 9 visible emissions observation. In August, 2005, a compliance determination program was undertaken by Pike at which time Method 9 observations were undertaken on the crusher units. A copy of the compliance testing report showing compliance with the facility's air emission license was submitted to the Department by Pike and is on file.

The regulated pollutant from the rock crushers is particulate emissions. To meet the requirements of Best Practical Treatment (BPT) for control of particulate matter (PM) emissions from the rock crushers, Pike shall maintain and operate water sprays on the rock crushers at the Elliot facility in such a manner as to control visible emissions to no greater than 10% opacity on a 6-minute block average basis.

C. Diesel Generator Units

Pike operates a diesel generator set, designated Cat Diesel #1, primarily as an electrical power source for the primary, secondary and tertiary rock crushers. Because Cat Diesel #1 is considered new equipment, an application of Best Available Control Technology (BACT) is required. BACT for new or modified diesel engines requires the use of diesel fuel oil with a sulfur content of no greater than 0.05% sulfur by weight.

Pike has requested an annual fuel limit for Cat Diesel #1 of 75,000 gallons of diesel fuel oil per year (gal/yr) with a sulfur content of no greater than 0.05% sulfur by weight, on a calendar year basis. To demonstrate compliance with the fuel restrictions, Pike shall maintain a record of fuel oil purchases, which shall include receipts indicating the amount of fuel delivered and certification from the supplier indicating the sulfur content of the purchased fuel. The fuel record shall be maintained on a monthly as well as on a calendar year basis.

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A summary of the BPT analysis for Cat Diesel #1 is as follows:

1. BPT is the use of diesel fuel with a sulfur content of 0.05% by weight.
2. BPT for PM, for the diesel unit, is emissions not to exceed 0.12 lb/MMBtu. PM₁₀ emission limits are based on PM limits.
3. NO_x, CO and VOC emission limits, for the diesel unit, are based on AP-42 data dated 10/96.
4. Visible emissions from the diesel unit shall not exceed 30% opacity on a 6-minute block average except, for no more than two 6-minute block averages in a 3-hour period.

D. Fugitive Emissions

Visible emissions from potential sources of fugitive particulate matter emissions, including material screens, material stockpiles and unpaved roadways, shall not exceed an opacity of 20%, except for no more than 5-minutes in any 1-hour period. Compliance shall be determined by an aggregate of the individual 15-second opacity observations which exceed 20% in any 1-hour.

E. Annual Emission Restrictions

- Total fuel use in the Cat Diesel #1 shall not exceed 75,000 gal/year of diesel fuel oil with a sulfur content of no greater than 0.05 % sulfur by weight, on a calendar year basis.

Pike shall be assessed fees based on the following annual emissions based on a twelve-month rolling total:

<u>Pollutant</u>	<u>Total (tons/yr)</u>
PM	1.6
PM ₁₀	1.6
SO ₂	0.3
NO _x	22.7
CO	4.9
VOC	1.8

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III. AMBIENT AIR QUALITY ANALYSIS

According to the Maine Regulations Chapter 115, the level of air quality analyses required for a minor source shall be determined on a case-by case basis. Based on the information available in the file, and the similarity to existing sources, Maine Ambient Air Quality Standards (MAAQS) will not be violated by this source. Based on the total facility 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-548-71-H-R/A (SM) subject to the following conditions:

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, conducting inspections, or examining and copying records relating to emissions (38 MRSA §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.

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- (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.
- (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.
- (5) The licensee shall pay the annual air emission license fee to the Department, calculated pursuant to 38 M.R.S.A. §353.
- (6) The license does not convey any property rights of any sort, or any exclusive privilege.
- (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.
- (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.
- (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.
- (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.

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- (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:
- (i) perform stack testing to demonstrate compliance with the applicable emission standards under circumstances representative of the facility's normal process and operating conditions:
 - a. 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
 - b. pursuant to any other requirement of this license to perform stack testing.
 - (ii) 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
 - (iii) submit a written report to the Department within thirty (30) days from date of test completion.
- (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:
- (i) 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
 - (ii) 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

- (iii)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.
- (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.
- (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.
- (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.

SPECIFIC CONDITIONS

- (16) Rock Crushers
- A. Pike shall maintain spray nozzles on the Primary, Secondary and Tertiary Rock Crushers and operate the spray nozzles as necessary so as not to exceed visible emissions limits. Visible emissions from the crushers shall be limited to no greater than 10% opacity on a 6-minute block average basis. [MEDEP Chapter 101]
- B. Pike shall maintain a log detailing the maintenance on the water spray nozzles. The maintenance log shall be kept on-site at the rock crushing location. [MEDEP Chapter 115, BPT]
- C. Pike shall maintain a log detailing and quantifying the hours of operation on a daily basis for the Primary, Secondary and Tertiary Rock Crushers. The operation log shall be kept on-site at the rock crushing location. [MEDEP Chapter 115, BPT]

D. The primary, secondary and tertiary crushers are subject to 40 CFR Part 60 Subparts A and OOO and Pike shall comply with the notification and record keeping requirements of 40 CFR Part 60.676 and Part 60.7, except for Section (a)(2) of 60.7 per Subpart OOO, §60.676(h). [40 CFR 60, Subpart OOO]

(17) Diesel Generator Unit

A. Total fuel use for the diesel unit shall not exceed 75,000 gal/year of diesel fuel with a maximum sulfur content of 0.05% by weight on a calendar year basis. [MEDEP Chapter 115, BPT]

B. Compliance shall be based on fuel receipts from the supplier showing the quantity of fuel delivered and the percent sulfur of the fuel. Fuel use records shall be maintained on a monthly basis as well as on a calendar year basis. [MEDEP Chapter 115, BPT]

C. Emissions from Cat Diesel #1 shall be limited to the following

Equipment		PM	PM₁₀	SO₂	NO_x	CO	VOC
Cat Diesel #1	lb/hr	1.6	1.6	0.3	22.7	4.9	1.8

[MEDEP Chapter 103]

D. Visible emissions from the diesel unit shall not exceed 30% opacity on a 6-minute block average, except for no more than 2 six-minute block averages in a continuous 3-hour period. [MEDEP Chapter 101]

(18) Fugitive Emissions

Visible emissions from potential sources of fugitive particulate matter emissions, including material screens, material stockpiles and unpaved roadways, shall not exceed an opacity of 20 percent, except for no more than 5-minutes in any 1-hour period. Compliance shall be determined by an aggregate of the individual 15-second opacity observations which exceed 20 percent in any 1-hour. [MEDEP Chapter 101]

(19) 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 MRSA §605-C).

(20) Pike shall pay the annual air emission license fee within 30 days of December 31 of each year. Pursuant to 38 MRSA 353-A, failure to pay this annual fee in the stated timeframe is sufficient grounds for the revocation of the license under 38 MRSA 341-D, Subsection 3.

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- (21) Pike shall keep a copy of this Order on site, and have the operator(s) be familiar with the terms of this Order. [MEDEP Chapter 115]
- (22) Equipment Relocation [MEDEP Chapter 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

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.

DONE AND DATED IN AUGUSTA, MAINE THIS DAY OF 2006.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: _____
DAVID P. LITTELL, COMMISSIONER

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

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

Date of initial receipt of application: **June 10, 2005**

Date of application acceptance: **June 23, 2005**

Date filed with the Board of Environmental Protection: _____

This Order prepared by, Peter G. Carleton, Bureau of Air Quality