



STATE OF MAINE  
DEPARTMENT OF ENVIRONMENTAL PROTECTION



PAUL R. LEPAGE  
GOVERNOR

PAUL MERCER  
COMMISSIONER

**Old York Quarry, Inc.  
York County  
York, Maine  
A-1048-71-B-N/M**

**Departmental  
Findings of Fact and Order  
Air Emission License  
After-the-Fact Renewal /  
Minor Revision**

**FINDINGS OF FACT**

After review of the air emission license renewal 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 (Department) finds the following facts:

**I. REGISTRATION**

**A. Introduction**

The Air Emission License for Old York Quarry, Inc. (Old York Quarry) expired on February 28, 2016. Old York Quarry has applied to renew their expired license for the operation of emission sources associated with their quarry.

Old York Quarry has also requested a minor revision to their license in order to adjust the size of their Generator #1 to reflect its actual specifications.<sup>1</sup> Total input capacity for the fuel burning equipment used by Old York Quarry falls under the minimum licensing threshold; however, Old York Quarry has requested to maintain their air emission license.

The equipment addressed in this license is located at Old Mountain Road, York, Maine.

**B. Emission Equipment**

The following equipment is addressed in this air emission license:

<sup>1</sup> In the previous license, Generator #1's liter/hour firing rate was expressed as its gallons/hr firing rate. This has been corrected.

**Generator**

<u>Equipment</u>	<u>Max. Input Capacity (MMBtu/hr)</u>	<u>Rated Output Capacity (kW)</u>	<u>Fuel Type, % sulfur</u>	<u>Firing Rate (gal/hr)</u>	<u>Date of Manuf.</u>	<u>Date of Install.</u>	<u>Stack #</u>
Generator #1	0.99	90	Distillate fuel, 0.0015 % by weight	7.2	2010	2010	1

**Process Equipment**

<u>Equipment</u>	<u>Pollution Control Equipment</u>
Guillotine	None
Stone Saw	None

C. Definitions

*Distillate Fuel.* For the purposes of this license, *distillate fuel* means the following:

1. Fuel oil that complies with the specifications for fuel oil numbers 1 or 2, as defined by the American Society for Testing and Materials (ASTM) in ASTM D396;
2. Diesel fuel oil numbers 1 or 2, as defined in ASTM D975;
3. Kerosene, as defined in ASTM D3699;
4. Biodiesel, as defined in ASTM D6751; or
5. Biodiesel blends, as defined in ASTM D7467.

D. Application Classification

The previous air emission license for Old York Quarry expired on February 28, 2016. A complete application was not submitted prior to the expiration date; therefore, Old York Quarry is considered to be an existing source applying for an after-the-fact renewal.

The application for Old York Quarry does not include the licensing of increased emissions, but it does include a correction in the size of Generator #1 to be smaller. Therefore, the license is considered to be both an after-the-fact renewal of currently licensed emission units and a minor revision and it has been processed through *Major and Minor Source Air Emission License Regulations*, 06-096 Code of Maine Rules (CMR) 115 (as amended). The facility is licensed below the major source thresholds for both criteria pollutants and for hazardous air pollutants (HAP). Old York Quarry is therefore considered a minor source and an area source of HAP.

## 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 and existing equipment. BPT for an after-the-fact renewal requires an analysis similar to a Best Available Control Technology analysis per 06-096 CMR 115 (as amended).

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.

### B. Generator #1

Old York Quarry operates one non-emergency generator. Generator #1 is a generator set consisting of an engine and an electrical generator. It has an engine rated at 0.99 MMBtu/hr and fires distillate fuel. Generator #1 was manufactured in 2010 and is used as a power source for process equipment at the facility.

#### 1. BPT Findings

The BPT emission limits for Generator #1 are based on the following:

PM/PM <sub>10</sub>	--	0.19 lb/MMBtu from 40 CFR §89.112 Table 1 as directed by 40 CFR §60.4204(b)
SO <sub>2</sub>	--	0.0015 lb/MMBtu based on the combustion of distillate fuel with a maximum sulfur content of 15 ppm (0.0015% sulfur by weight)
NO <sub>x</sub>	--	2.58 lb/MMBtu from 40 CFR §89.112 Table 1 for NMHC + NO <sub>x</sub> , <sup>2</sup> as directed by 40 CFR §60.4204(b)
CO	--	3.23 lb/MMBtu from 40 CFR §89.112 Table 1 as directed by 40 CFR §60.4204(b)
VOC	--	2.58 lb/MMBtu from 40 CFR §89.112 Table 1 for NMHC + NO <sub>x</sub> , <sup>2</sup> as directed by 40 CFR §60.4204(b)
Visible Emissions	--	40 CFR §89.113(a)(1)-(3) as directed by 40 CFR §60.4204(b)

<sup>2</sup> The emission factor combines NO<sub>x</sub> and NMHC (representing VOC). 100% contribution of each is assumed for the respective limits.

The BPT emission limits for Generator #1 are the following:

<b>Unit</b>	<b>PM (lb/hr)</b>	<b>PM<sub>10</sub> (lb/hr)</b>	<b>SO<sub>2</sub> (lb/hr)</b>	<b>NO<sub>x</sub> (lb/hr)</b>	<b>CO (lb/hr)</b>	<b>VOC (lb/hr)</b>
Generator #1 (0.99 MMBtu/hr) distillate fuel	0.19	0.19	0.01	2.54	3.19	2.54

Visible emissions from Generator #1 shall not exceed the following:

- a. 20% opacity during the acceleration mode;
- b. 15% opacity during the lugging mode; and
- c. 50% opacity during the peaks in either the acceleration or lugging modes

2. 40 CFR Part 60, Subpart IIII

The federal regulation 40 CFR Part 60, Subpart IIII, *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (CI ICE)* is applicable to the generator listed above since the unit was ordered after July 11, 2005, and manufactured after April 1, 2006. By meeting the requirements of Subpart IIII, the unit also meets the requirements found in the *National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines*, 40 CFR Part 63, Subpart ZZZZ. [40 CFR §60.4200]

40 CFR Part 60, Subpart IIII Requirements:

a. Manufacturer Certification Requirement

The engine shall be certified by the manufacturer as meeting the emission standards for new nonroad compression ignition engines found in 40 CFR §60.4201. [40 CFR §60.4204(b)]

b. Ultra-Low Sulfur Fuel Requirement

The fuel fired in the engine shall not exceed 15 ppm sulfur (0.0015% sulfur), except that any existing fuel purchased (or otherwise obtained) prior to October 1, 2010, may be used until depleted. [40 CFR §60.4207(b)]

c. Operation and Maintenance Requirements

(1) The engine shall be operated and maintained according to the manufacturer's emission-related written instructions or procedures developed by Old York Quarry that are approved by the engine manufacturer. Old York Quarry may only change those emission-related settings that are permitted by the manufacturer.

- (2) The engine shall meet all applicable requirements of 40 CFR part 89, including the given emission standards.
- (3) Old York Quarry shall operate and maintain Generator #1 to meet the applicable emission standards directed from 40 CFR §60.4204 over the entire life of the engine.
- (4) If the engine is not installed, configured, operated, or maintained in a way as directed by the manufacturer's written-instructions, or if emissions-related settings are changed in a way not permitted by the manufacturer, Old York Quarry shall demonstrate compliance as indicated in §60.4211(g)(2), as follows:
  - i. Keep a maintenance plan and records of conducted maintenance;
  - ii. To the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions; and
  - iii. Conduct an initial performance test to demonstrate compliance with the applicable emission standards within one year of startup, or within one year after the engine is no longer controlled, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within one year after changing emission-related settings in a way that is not permitted by the manufacturer.

[40 CFR §60.4211(a),(c), and (g); and 40 CFR §60.4206]

C. Process Equipment

Old York Quarry operates a guillotine and a stone saw, both used to cut quarried materials. Neither piece of equipment is subject to federal regulations limiting air emissions; however, 06-096 CMR 101 requires the following for general process sources:

Visible emissions from any general process source shall not exceed 20% opacity on a six-minute block average basis, except for no more than one six-minute block average in a one-hour period.

D. Fugitive Emissions

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

E. Other General Process Emissions

Visible emissions from any general process source shall not exceed 20% opacity on a six-minute block average basis, except for no more than one six-minute block average in a one-hour period.

F. Annual Emissions

1. Total Annual Emissions

Old York Quarry shall be restricted to the following annual emissions, based on a calendar year total. The tons per year limits were calculated based on 8760 hours of operation of Generator #1 and the firing of distillate fuel with a fuel sulfur content of 15 ppm, equating to 0.0015% by weight:

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

	<b>PM</b>	<b>PM<sub>10</sub></b>	<b>SO<sub>2</sub></b>	<b>NO<sub>x</sub></b>	<b>CO</b>	<b>VOC</b>
Generator #1	0.8	0.8	0.1	11.2	14.0	11.2
<b>Total TPY</b>	<b>0.8</b>	<b>0.8</b>	<b>0.1</b>	<b>11.2</b>	<b>14.0</b>	<b>11.2</b>

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 (CO<sub>2</sub>e).

The quantity of CO<sub>2</sub>e emissions from this facility is less than 100,000 tons per year, based on the following:

- worst case emission factors from the following sources: U.S. EPA's AP-42, the Intergovernmental Panel on Climate Change (IPCC), and 40 CFR Part 98, *Mandatory Greenhouse Gas Reporting*; and
- global warming potentials contained in 40 CFR Part 98.

No additional licensing actions to address GHG emissions are required at this time.

### III. AMBIENT AIR QUALITY ANALYSIS

The level of ambient air quality impact modeling required for a minor source is 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 licensed annual emissions of any pollutant released do not exceed the following levels and there are no extenuating circumstances:

<u>Pollutant</u>	<u>Tons/Year</u>
PM <sub>10</sub>	25
SO <sub>2</sub>	50
NO <sub>x</sub>	50
CO	250

The total licensed annual emissions for the facility 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.

### 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-1048-71-B-N/M 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 Amendment 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 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 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 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 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) **Generator #1**

A. Emissions shall not exceed the following [06-096 CMR 115, BPT]:

<b>Unit</b>	<b>PM (lb/hr)</b>	<b>PM<sub>10</sub> (lb/hr)</b>	<b>SO<sub>2</sub> (lb/hr)</b>	<b>NO<sub>x</sub> (lb/hr)</b>	<b>CO (lb/hr)</b>	<b>VOC (lb/hr)</b>
Generator # 1 (0.99 MMBtu/hr) distillate fuel	0.19	0.19	0.01	2.54	3.19	2.54

B. Visible Emissions

Visible emissions from Generator #1 shall not exceed the following:

- a. 20% opacity during the acceleration mode;
- b. 15% opacity during the lugging mode; and
- c. 50% opacity during the peaks in either the acceleration or lugging modes

[40 CFR §89.113(a)(1)-(3)]

C. The Generator shall meet the applicable requirements of 40 CFR Part 60, Subpart III, including the following:

1. Manufacturer Certification

The engine shall be certified by the manufacturer as meeting the emission standards for new nonroad compression ignition engines found in 40 CFR §60.4201. [40 CFR §60.4204(b)]

2. Ultra-Low Sulfur Fuel

The fuel fired in the engine shall not exceed 15 ppm sulfur (0.0015% sulfur), except that any existing fuel purchased (or otherwise obtained) prior to October 1, 2010, may be used until depleted. Compliance with the fuel sulfur content limit shall be based on fuel records from the supplier documenting the type of fuel delivered and the sulfur content of the fuel. [40 CFR §60.4207(b) and 06-096 CMR 115, BPT]

3. Operation and Maintenance

- a. The engine shall be operated and maintained according to the manufacturer's emission-related written instructions or procedures developed by Old York Quarry that are approved by the engine manufacturer. Old York Quarry may only change those emission-related settings that are permitted by the manufacturer.
- b. The engine shall meet all applicable requirements of 40 CFR Part 89, including the given emission standards.
- c. Old York Quarry shall operate and maintain Generator #1 to meet the applicable emission standards directed from 40 CFR §60.4204 over the entire life of the engine.
- d. If the engine is not installed, configured, operated, or maintained in a way as directed by the manufacturer's written-instructions, or if emissions-related settings are changed in a way not permitted by the manufacturer, Old York Quarry shall demonstrate compliance as indicated in §60.4211(g)(2), as follows:
  - i. Keep a maintenance plan and records of conducted maintenance;
  - ii. To the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions; and
  - iii. Conduct an initial performance test to demonstrate compliance with the applicable emission standards within one year of startup, or within one year after the engine is no longer controlled, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within one year after changing emission-related settings in a way that is not permitted by the [40 CFR §60.4211(a),(c), and (g); and 40 CFR §60.4206]

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(17) **Process Equipment**

Visible emissions from the Guillotine and the Stone Saw shall each not exceed 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 CMR 101]

(18) **Fugitive Emissions**

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

(19) **Other General Process Sources**

Visible emissions from any general process source shall not exceed 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 CMR 101]

(20) Old York Quarry 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 16 DAY OF June, 2016.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: Paul Mercer  
PAUL MERCER, COMMISSIONER

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

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

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: 04/26/2016

Date of application acceptance: 05/13/2016

Date filed with the Board of Environmental Protection:  
This Order prepared by Colby Fortier-Brown, Bureau of Air Quality.

