



DEPARTMENT ORDER

**State Sand and Gravel, Inc.  
Waldo County  
Belfast, Maine  
A-667-71-I-R/M**

**Departmental  
Findings of Fact and Order  
Air Emission License  
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 (M.R.S.) § 344 and § 590, the Maine Department of Environmental Protection (the Department) finds the following facts:

**I. REGISTRATION**

**A. Introduction**

State Sand and Gravel, Inc. (SSG) has applied to renew their Air Emission License for the operation of emission sources associated with their concrete batch plant and crushed stone and gravel facility.

This renewal also removes Heater #1 from the license.

The equipment addressed in this license is located at 185 Belmont Avenue, Belfast, Maine.

**B. Emission Equipment**

The following equipment is addressed in this Air Emission License:

**Concrete Plant**

<b><u>Equipment</u></b>	<b><u>Production Rate (cubic yards/hour)</u></b>	<b><u>Control Devices</u></b>
Concrete Batch Plant	60	Silo Vent Systems

**Rock Crushers**

<b><u>Designation</u></b>	<b><u>Powered</u></b>	<b><u>Process Rate (tons/hour)</u></b>	<b><u>Date of Manufacture</u></b>	<b><u>Control Device</u></b>
Primary (Jaw)	Electrical	50	1989	Enclosure
Secondary (Cone)	Electrical	40	1988	Spray Nozzles

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.

The application for SSG 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 currently licensed emission units and has been processed through *Major and Minor Source Air Emission License Regulations*, 06-096 Code of Maine Rules (C.M.R.) ch. 115.

This license is also being amended to remove Heater #1. It was erroneously listed in the previous air license as having a maximum heat input capacity of 1.4 MMBtu/hr. Subsequent research on this heater has confirmed that its actual heat input capacity is 0.84 MMBtu/hr. Because this heater is rated at less than 1.0 MMBtu/hr, by rule it is insignificant and was therefore not considered in the emission calculations for this air license renewal. [*Units and Activities Defined as Insignificant Based on Size or Production Rate*, 06-096 C.M.R. Chapter 115, Appendix B, (B)(2)]

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.

SSG is licensed below the major source thresholds for criteria air pollutants (CAP) and is considered a minor source.

SSG is licensed below the major source thresholds for hazardous air pollutants (HAP) and is considered an area source of HAP.

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 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. Concrete Batch Plant

The Concrete Batch Plant is rated at 60 cubic yards/hour and includes two silos.

To meet the requirements of BPT for control of particulate matter (PM) emissions from the cement silos, their particulate emissions shall be vented through dust collection systems that are maintained for 99% removal efficiency. SSG presently uses a McNeilus Silo Vent System, Model MBV4 on each silo.

Visible emissions from each cement silo dust collection system are limited to no greater than 10% opacity on a six-minute block average basis. The facility shall take corrective action if visible emissions from either dust collection system exceed 5% opacity.

All components of the Concrete Batch Plant shall be maintained so as to prevent PM leaks. Visible emissions from concrete batching operations shall not exceed 20% opacity on a six-minute block average basis.

C. Rock Crushers

The primary and secondary rock crushers were manufactured in 1989 and 1988 with rated capacities of 50 tons per hour (tph) and 40 tph, respectively. They are powered by electricity and get their power via hard-wired connections to the electrical grid.

1. BPT Findings

The regulated pollutant from the Rock Crushers is particulate matter emissions. To meet the requirements of BPT for control of particulate matter emissions from the rock crushers, SSG shall maintain the primary rock crusher within the enclosure and shall operate water sprays on the secondary rock crusher as needed to control visible emissions.

Fugitive emissions from building openings in the enclosure for the primary rock crusher shall not exceed 7% opacity. [40 C.F.R. § 60.672(e)(1)]

Visible emissions from the secondary rock crusher shall not exceed 10% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 101]

2. New Source Performance Standards

Because both the primary and the secondary rock crushers:

- are fixed, and not portable;
- have rated capacities of greater than 25 tons/hour; and
- were manufactured after August 31, 1983;

Both the primary and secondary rock crushers are subject to the federal regulation New Source Performance Standards (NSPS) *Standards of Performance for Nonmetallic Mineral Processing Plants*, 40 C.F.R. Part 60, Subpart OOO. [40 C.F.R. § 60.670(c)]

(a) Requirements of 40 C.F.R. Part 60, Subpart OOO:

(1) Monitoring Requirements

SSG shall maintain records detailing the maintenance on particulate matter control equipment including spray nozzles. SSG shall perform monthly inspections of any water sprays to ensure water is flowing to the correct locations and initiate corrective action within 24 hours if water is found to not be flowing properly. Records of the date of each inspection and any corrective action required shall be included in the maintenance records. The maintenance records shall be kept on-site at the rock crushing location. [40 C.F.R. § 60.674(b)]

(2) Testing Requirements

- i. Initial performance testing of both rock crushers operated by SSG is required by 40 C.F.R. Part 60, Subpart OOO, § 60.675. Initial performance testing was to take place within 60 days after achieving the maximum production rates at which the units were operated, but no later than 180 days after initial startup of the units.
- ii. Performance testing for the rock crushers shall be done using the methods set forth in 40 C.F.R. Part 60, Subpart OOO, § 60.675. Performance testing for the secondary rock crusher was successfully completed in August of 2005, and all necessary documentation for that testing has been provided to the Department. [40 C.F.R. § 60.675(c) and 06-096 C.M.R. ch. 115, BPT]
- iii. Notification of intent to execute initial performance testing shall be submitted to the Department and the EPA by the facility at least seven days prior to commencing testing. [40 C.F.R. § 60.675(g) and 06-096 C.M.R. ch. 115, BPT]

- iv. If the timing for a facility's initial performance test falls within a seasonal shutdown, the testing may be postponed until no later than 60 calendar days after resuming operation of the affected equipment, if approval is first obtained from the Department. [40 C.F.R. § 60.675(i)]

(3) Reporting and Recordkeeping Requirements

The primary and secondary rock crushers are subject to 40 C.F.R. Part 60, Subparts A and OOO, and SSG shall comply with the notification and recordkeeping requirements of 40 C.F.R. §§ 60.676 and 60.7, except for § 60.7(a)(2) per 40 C.F.R. Subpart OOO, § 60.676(h). [40 C.F.R. §§ 60.676(f), and (i)]

D. Fuel Burning Equipment

The fuel burning equipment listed below is deemed insignificant per 06-096 C.M.R. Chapter 115, Appendix B, (B)(2), and is only being included for informational and completeness purposes. They were not factored in the facility's emission calculations.

<b>Unit</b>	<b>Maximum Heat Input (MMBtu/hr)</b>	<b>Maximum Firing Rate (gph)</b>	<b><u>Date of Manufacture</u></b>	<b><u>Date of Installation</u></b>
Concrete Water Heater #1	0.84	6.0	2010	2010
Boiler #1	0.39	2.8	1993	1994
Boiler #2	0.53	3.8	1999	1999
Waste Oil Burner #1	0.70*	5.0	1990	1994

\* - based on a maximum assumed heat value of 0.140 MMBtu/gal for waste oil

The fuel burning equipment utilized by SSG shall fire distillate fuel which, by definition, has a sulfur content of 0.5% or less by weight. Per 38 M.R.S. § 603-A(2)(A)(3), as of July 1, 2018, no person shall import, distribute, or offer for sale any distillate fuel with a sulfur content greater than 0.0015% by weight (15 ppm). Therefore, beginning July 1, 2018, the distillate fuel purchased or otherwise obtained for use in SSG's fuel burning equipment shall not exceed 0.0015% by weight (15 ppm).

The fuel burning equipment at this facility is exempt from the requirements of any New Source Performance Standards (NSPS) due to their individual sizes. [40 C.F.R. § 60.40c]

The fuel burning equipment at this facility is exempt from the requirements of any National Emission Standards for Hazardous Air Pollutants due to their individual sizes. [40 C.F.R. §§63.11195(f) and 63.11237]

E. Stock Piles and Roadways

Visible emissions from a fugitive emission source 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 C.M.R. ch. 101]

F. General Process Emissions

Visible emissions from any general process (including conveyor belts, transfer points, portable screens, etc.) associated with an NSPS rock crusher shall not exceed 7% opacity on a six-minute block average basis. Compliance with this limit shall be demonstrated by conducting the initial performance test according to 40 C.F.R. §§ 60.11 and 60.675 and periodic inspections of the water sprays according to §§ 60.674(b) and 60.676(b). [40 C.F.R. Part 60, Subpart OOO, Table 3]

Visible emissions from any other general process (non-NSPS crusher conveyor belts, bucket elevators, bagging operations, truck loading operations, portable screens, etc.) shall not exceed 20% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 115, BPT]

G. Annual Emissions

1. Total Annual Emissions

All fuel burning equipment at SSG is considered insignificant and their contributions are not factored into the facility's annual emission limits.

Emissions from the concrete batch plant and rock crushers are not quantifiable and are dictated by the performance of the control equipment associated with them. Therefore, SSG has no mass based licensed emission limits for criteria air pollutants or hazardous air pollutants in this license.

## 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 C.F.R. Part 52, Subpart A, § 52.21, *Prevention of Significant Deterioration of Air Quality* rule. Greenhouse gases, as defined in 06-096 C.M.R. ch. 100, 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 less than 100,000 tons per year, based on the size and quantity of the facility's fuel burning equipment.

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 C.M.R. ch. 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:

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

Because the facility has no licensed annual emission limits and there are no extenuating circumstances, 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,
- will not violate applicable ambient air quality standards in conjunction with emissions from other sources.

The Department hereby grants Air Emission License A-667-71-I-R/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 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. § 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 06-096 C.M.R. ch. 115. [06-096 C.M.R. ch. 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 C.M.R. ch. 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 C.M.R. ch. 115]



- (5) The licensee shall pay the annual air emission license fee to the Department, calculated pursuant to Title 38 M.R.S. § 353-A. [06-096 C.M.R. ch. 115]
- (6) The license does not convey any property rights of any sort or any exclusive privilege. [06-096 C.M.R. ch. 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 C.M.R. ch. 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 C.M.R. ch. 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 C.M.R. ch. 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 C.M.R. ch. 115]
- (11) In accordance with the Department's air emission compliance test protocol and 40 C.F.R. 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 C.F.R. 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 C.M.R. ch. 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 C.F.R. 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 C.M.R. ch. 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 C.M.R. ch. 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 C.M.R. ch. 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 C.M.R. ch. 115]

### **SPECIFIC CONDITIONS**

(16) **Concrete Batch Plant**

- A. Particulate emissions from the cement silos shall be vented through dust collection systems, and all components of the concrete batch plant shall be maintained so as to prevent PM leaks. [06-096 C.M.R. ch. 115, BPT]
- B. To document maintenance of the cement silos' dust collection systems, the licensee shall keep maintenance records recording the dates and locations of all system failures as well as all routine maintenance and inspections. The maintenance and inspection records shall be kept on-site at the concrete batch plant location. [06-096 C.M.R. ch. 115, BPT]
- C. Visible emissions from each of the cement silos' dust collection systems are limited to no greater than 10% opacity on a six-minute block average basis. SSG shall take corrective action if visible emissions from either of the dust collection systems exceed 5% opacity. [06-096 C.M.R. ch. 115, BPT]
- D. PM emissions from the concrete batching operation 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, BPT]

(17) **Rock Crushers**

- A. SSG shall conduct an initial performance test on the enclosure that houses the primary rock crusher. This test shall be performed within 60 days after startup of the primary rock crusher in 2017. [40 C.F.R. § 60.672(b) and 40C.F.R. § 60.675(d)(2)]

- B. SSG shall submit a test notice to the Department and the EPA at least seven days prior to conducting a performance test. [06-096 C.M.R. ch. 115, BPT and 40 C.F.R. § 60.675(g)]
- C. SSG shall maintain the enclosure for the primary rock crusher for particulate control as necessary to limit visible emissions to no greater than 7% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 115, BPT and 40 C.F.R. §60.672(e)(1)]
- D. SSG shall maintain spray nozzles for particulate control on the secondary rock crusher and operate them as necessary to limit visible emissions to no greater than 10% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 101, 06-096 C.M.R. ch. 101 and BPT]
- E. SSG shall maintain records detailing and quantifying the hours of operation on a daily basis for the primary and secondary rock crushers. The operation records shall be kept on-site at the rock crushing location. [06-096 C.M.R. ch. 115, BPT and 40 C.F.R. § 60.672(b)]
- F. SSG shall maintain records detailing the maintenance on particulate matter control equipment (including spray nozzles). SSG shall perform monthly inspections of any water sprays to ensure water is flowing to the correct locations and initiate corrective action within 24 hours if water is found to not be flowing properly. Records of the date of each inspection and any corrective action required shall be included in the maintenance records. The maintenance records shall be kept on-site at the rock crushing location. [06-096 C.M.R. ch. 115, BPT and 40 C.F.R. § 60.674(b)]
- G. The primary and secondary rock crushers are subject to 40 C.F.R. Part 60 Subparts A and OOO, and SSG shall comply with the notification and record keeping requirements of 40 C.F.R. §§ 60.676 and 60.7, except for § 60.7(a)(1) per §60.676(h). [40 C.F.R. §§ 60.676(b), (f), and (i)]

**(18) Fuel Burning Equipment**

The fuel burning equipment utilized by SSG shall fire distillate fuel which, by definition, has a sulfur content of 0.5% or less by weight. Per 38 M.R.S. § 603-A(2)(A)(3), as of July 1, 2018, no person shall import, distribute, or offer for sale any distillate fuel with a sulfur content greater than 0.0015% by weight (15 ppm). Therefore, beginning July 1, 2018, the distillate fuel purchased or otherwise obtained for use in SSG's fuel burning equipment shall not exceed 0.0015% by weight (15 ppm). [06-096 C.M.R. ch. 115, BPT]

(19) **Stockpiles and Roadways**

Visible emissions from a fugitive emission source 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 C.M.R. ch. 101]

(20) **General Process Sources**

Visible emissions from any general process (including conveyor belts, transfer points, portable screens, etc.) associated with an NSPS rock crusher shall not exceed 7% opacity on a six-minute block average basis. Compliance with this limit shall be demonstrated by conducting the initial performance test according to 40 C.F.R. §§ 60.11 and 60.675 and periodic inspections of the water sprays according to §§ 60.674(b) and 60.676(b). [40 C.F.R. Part 60, Subpart OOO, Table 3]

Visible emissions from any other general process (non-NSPS crusher conveyor belts, bucket elevators, bagging operations, truck loading operations, portable screens, etc.) shall not exceed 20% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 115, BPT]

(21) **Equipment Relocation** [06-096 C.M.R. ch. 115, BPT]

- A. SSG shall notify the Bureau of Air Quality, by a written notification, prior to relocation of any equipment carried on this license. It is preferred for notice of relocation to be submitted through the Department's on-line e-notice at: [www.maine.gov/dep/air/compliance/forms/relocation](http://www.maine.gov/dep/air/compliance/forms/relocation)

Written notice may also be sent by fax (207-287-7641) or mail. Notification sent by mail shall be sent to the address below:

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

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 shall be made to the respective county commissioners.
- (22) SSG shall keep a copy of this Order on site, and have the operator(s) be familiar with the terms of this Order. [06-096 C.M.R. ch. 115, BPT]
- (23) SSG 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. § 605].

DONE AND DATED IN AUGUSTA, MAINE THIS 9 DAY OF January, 2017.

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. § 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: September 19, 2016

Date of application acceptance: September 27, 2016

Date filed with the Board of Environmental Protection:

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

