



DEPARTMENT ORDER

**Sargent Corporation
Penobscot County
Stillwater, Maine
A-942-71-H-R (SM)**

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

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

Sargent Corporation (Sargent) has applied to renew their Air Emission License for the operation of their portable crushed stone and gravel equipment.

The main office is located at 378 Bennoch Road, Stillwater, Maine.

B. Emission Equipment

The following equipment is addressed in this Air Emission License:

Rock Crushers

Designation	Powered By	Process Rate (tons/hour)	Date of Manf.	Control Device
#81017 JCI K300 (Cone)	Engine #4	300	2007	Spray Nozzles
#81031 JCI FT2650 (Jaw)	Engine #6	300	2014	Spray Nozzles
#81032 JCI FT2650 (Jaw)	Engine #2	300	2014	Spray Nozzles

Engines

Unit ID	Max. Capacity (MMBtu/hr)	Max. Firing Rate (gal/hr)	Fuel Type, % sulfur	Date of Manuf.
Engine #2	2.2	16.1	distillate fuel, 0.0015%	2014
Engine #4	3.6	26.3	distillate fuel, 0.0015%	2007
Engine #6	2.2	16.1	distillate fuel, 0.0015%	2007

C. Definitions

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

- 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;
- Diesel fuel oil numbers 1 or 2, as defined in ASTM D975;
- Kerosene, as defined in ASTM D3699;
- Biodiesel, as defined in ASTM D6751; or
- Biodiesel blends, as defined in ASTM D7467.

D. 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 Sargent 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 only and has been processed through *Major and Minor Source Air Emission License Regulations*, 06-096 Code of Maine Rules (C.M.R.) ch. 115. With the annual fuel limit on the engines, the facility is licensed as follows:

- As a synthetic minor source of air emissions, because the licensed emissions are below the major source thresholds for criteria pollutants; and
- As an area source of hazardous air pollutants (HAP), because the licensed emissions are below the major source thresholds for 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. Rock Crushers

Rock crushers #81017, #81031, and #81032 are portable units which were manufactured in 2007, 2014, and 2014, respectively. Each rock crusher has a rated capacity of 300 ton/hr.

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, Sargent shall maintain water sprays on the rock crushers and operate as needed to control visible emissions. Visible emissions from the rock crushers shall be limited to no greater than 10% opacity on a six-minute block average basis.

2. New Source Performance Standards

Because rock crushers #81017, #81031, and #81032 are portable, have rated capacities greater than 150 tons/hour, and were manufactured after August 31, 1983, rock crushers #81017, #81031, and #81032 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)]

40 C.F.R. Part 60, Subpart OOO, § 60.675 requires that Sargent conduct an initial performance test on each crusher. Below are the dates of the most recent performance tests completed on each crusher:

Rock Crusher	Test Date
#81017	9/4/13
#81031	10/26/15
#81032	12/4/16

Please note, the Department previously required performance tests be repeated every five years for crusher #81017. (This requirement has since been removed.) In addition, although manufactured in 2014, crushers #81031 and #81032 were not purchased by Sargent until 2015 and 2016, respectively.

Requirements of 40 C.F.R. Part 60, Subpart OOO

a. Monitoring Requirements

Sargent shall maintain records detailing the maintenance on particulate matter control equipment including spray nozzles. Sargent 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)]

b. Testing Requirements

(1) An initial performance test must be completed within 60 days after achieving the maximum production rate at which the unit will be operated, but no later than 180 days after initial startup of the unit. If the initial performance test for a facility falls within a seasonal shutdown, then with approval from the Department, the initial performance test may be postponed until no later than 60 calendar days after resuming operation of the affected equipment.

[40 C.F.R. § 60.672(b)]

(2) Each performance test shall be done using the methods set forth in 40 C.F.R. Part 60, Subpart OOO, § 60.675. Performance tests for the rock crushers were successfully completed on the dates listed above, and all necessary documentation has been provided to the Department.

[40 C.F.R. § 60.675(c) and 06-096 C.M.R. ch. 115, BPT]

(3) Sargent shall submit a test notice to the Department and the EPA at least seven days prior to conducting a performance test.

[40 C.F.R. § 60.675(g) and 06-096 C.M.R. ch. 115, BPT]

c. Reporting and Recordkeeping Requirements

The rock crushers are all subject to 40 C.F.R. Part 60, Subparts A and OOO, and Sargent 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(b), (f), and (i)]

F. Engines

Engines #2, #4, and #6 are portable units used to power rock crushers #81032, #81017, and #81031, respectively. Engines #2 and #6 each have a maximum capacity of 2.2 MMBtu/hr and Engine #4 has a maximum capacity of 3.6 MMBtu/hr.

The engines shall be limited to 30,000 gallons/year (all three engines combined) on a calendar year total of distillate fuel with a maximum sulfur content not to exceed 15 ppm (0.0015% by weight).

1. BPT Findings

The BPT emission limits for the engines were based on the following:

- PM, PM₁₀ - (Engine #4) 0.12 lb/MMBtu per 06-096 C.M.R. ch. 103
- (Engines #2 & #6) 0.31 lb/MMBtu from AP-42 Table 3.3-1 dated 10/96
- SO₂ - combustion of distillate fuel with a maximum sulfur content not to exceed 15 ppm (0.0015% sulfur by weight)
- NO_x - 4.41 lb/MMBtu from AP-42 Table 3.3-1 dated 10/96
- CO - 0.95 lb/MMBtu from AP-42 Table 3.3-1 dated 10/96
- VOC - 0.35 lb/MMBtu from AP-42 Table 3.3-1 dated 10/96
- Visible Emissions - 06-096 C.M.R. ch. 115, BPT

The BPT emission limits for the engines are the following:

<u>Unit</u>	<u>Pollutant</u>	<u>lb/MMBtu</u>
Engine #4	PM	0.12

<u>Unit</u>	<u>PM (lb/hr)</u>	<u>PM₁₀ (lb/hr)</u>	<u>SO₂ (lb/hr)</u>	<u>NO_x (lb/hr)</u>	<u>CO (lb/hr)</u>	<u>VOC (lb/hr)</u>
Engine #2	0.68	0.68	–	9.70	2.09	0.77
Engine #4	0.43	0.43	0.01	15.88	3.42	1.26
Engine #6	0.68	0.68	–	9.70	2.09	0.77

Visible emissions from each engine shall not exceed 20% opacity on a six-minute block average basis.

2. New Source Performance Standards

The engines are considered non-road engines, as opposed to stationary engines, since they are portable and will be moved to various sites with the rock crushers. Therefore, Engines #2, #4, and #6 are not subject to *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines*, 40 C.F.R. Part 60, Subpart III. [40 C.F.R. § 60.4200]

3. National Emission Standards for Hazardous Air Pollutants

The engines are considered non-road engines, as opposed to stationary engines, since they are portable and will be moved to various sites with the rock crushers. Therefore, Engines #2, #4, and #6 are not subject to *National Emission Standards for Hazardous Air Pollutants for Stationary*

Reciprocating Internal Combustion Engines, 40 C.F.R. Part 63, Subpart ZZZZ. The definition in 40 C.F.R. § 1068.30 states that a non-road engine is an internal combustion engine that meets certain criteria, including: "Portable or transportable, meaning designed to be and capable of being carried or moved from one location to another. Indicia of transportability include, but are not limited to, wheels, skids, carrying handles, dolly, trailer, or platform." 40 C.F.R. § 1068.30 further states that an engine is not a non-road engine if it remains or will remain at a location for more than 12 consecutive months or a shorter period of time for an engine located at a seasonal source. An engine located at a seasonal source (a stationary source that remains in a single location on a permanent basis (i.e., at least two years) and that operates at that single location approximately three months (or more) each year) is an engine that remains at a seasonal source during the full annual operating period of the seasonal source. [40 C.F.R. § 63.6585]

G. Stock Piles and Roadways

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 during which time visible emissions shall not exceed 30% opacity.

H. 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 (bucket elevators, bagging operations, truck loading operations, portable screens, etc.) shall not exceed 20% opacity on a six-minute block average basis.

I. Annual Emissions

1. Total Annual Emissions

Sargent shall be restricted to the following annual emissions, based on a calendar year total. The tons per year limits were calculated based on a combined fuel limit of 30,000 gal/year for the engines.

Total Licensed Annual Emissions for the Facility

Tons/year

(used to calculate the annual license fee)

	PM	PM₁₀	SO₂	NO_x	CO	VOC
Engines	0.6	0.6	–	9.1	2.0	0.7
Total TPY	0.6	0.6	–	9.1	2.0	0.7

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 (CO₂e).

The quantity of CO₂e emissions from this facility is less than 100,000 tons per year, based on the following:

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

Pollutant	Tons/Year
PM ₁₀	25
SO ₂	50
NO _x	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,
- will not violate applicable ambient air quality standards in conjunction with emissions from other sources.

The Department hereby grants Air Emission License A-942-71-H-R 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) **Rock Crushers**

- A. Sargent shall install and maintain spray nozzles for particulate control on rock crushers #81017, #81031, and #81032 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. 115, BPT and 06-096 C.M.R. ch. 101]
- B. Sargent shall maintain records detailing and quantifying the hours of operation on a daily basis for all of the rock crushers. The operation records shall be kept on-site at the rock crushing location. [06-096 C.M.R. ch. 115, BPT]
- C. Sargent shall maintain records detailing the maintenance on particulate matter control equipment (including spray nozzles). Sargent 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)]

- D. Rock crushers #81017, #81031, and #81032 are subject to 40 C.F.R. Part 60 Subparts A and OOO, and Sargent shall comply with the notification and record keeping requirements of 40 C.F.R. §§ 60.676 and 60.7, except for § 60.7(a)(2) per §60.676(h). [40 C.F.R. §§ 60.676(b), (f), and (i)]

(17) **Engines**

A. Fuel Use

1. Engines #2, #4, and #6 are licensed to fire distillate fuel with a maximum sulfur content not to exceed 15 ppm (0.0015% sulfur by weight). [06-096 C.M.R. ch. 115, BPT]
2. Total fuel use for Engines #2, #4, and #6 (combined) shall not exceed 30,000 gal/yr of distillate fuel. Compliance shall be demonstrated by fuel records from the supplier showing the quantity and type of fuel delivered. Records of annual fuel use shall be kept on a monthly and calendar year total basis. [06-096 C.M.R. ch. 115, BPT]

B. Emissions shall not exceed the following:

<u>Unit</u>	<u>Pollutant</u>	<u>lb/MMBtu</u>	<u>Origin and Authority</u>
Engine #4	PM	0.12	06-096 C.M.R. ch. 103 § (2)(B)(1)(a)

C. Emissions shall not exceed the following [06-096 C.M.R. ch. 115, BPT]:

<u>Unit</u>	<u>PM (lb/hr)</u>	<u>PM₁₀ (lb/hr)</u>	<u>SO₂ (lb/hr)</u>	<u>NO_x (lb/hr)</u>	<u>CO (lb/hr)</u>	<u>VOC (lb/hr)</u>
Engine #2	0.68	0.68	–	9.70	2.09	0.77
Engine #4	0.43	0.43	0.01	15.88	3.42	1.26
Engine #6	0.68	0.68	–	9.70	2.09	0.77

- D. Visible emissions from each engine shall not exceed 20% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 115, BPT]

(18) **Stockpiles and Roadways**

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 during which time visible emissions shall not exceed 30% opacity. [06-096 C.M.R. ch. 115, BPT]

(19) **General Process Sources**

A. 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]

B. Visible emissions from any other general process (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]

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

A. Sargent 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

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.
- (21) Sargent 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]
- (22) Sargent 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 *24* DAY OF *February*, 2017.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: *Paul Allen Robert Case for*
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: 12/15/16

Date of application acceptance: 12/19/16

Date filed with the Board of Environmental Protection:

This Order prepared by Lynn Muzzey, Bureau of Air Quality.

