



DEPARTMENT ORDER

**Sargent Corporation
Penobscot County
Stillwater, Maine
A-942-71-K-A**

**Departmental
Findings of Fact and Order
Air Emission License
Amendment #3**

FINDINGS OF FACT

After review of the air emission license amendment 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) was issued Air Emission License A-942-71-H-R on February 24, 2017, for the operation of emission sources associated with their portable crushed stone and gravel facility. The license was subsequently amended on January 21, 2022 (A-942-71-I-M), and on December 2, 2022 (A-942-71-J-M).

The equipment addressed in this license amendment is located at located at 378 Bennoch Road, Stillwater, Maine.

Sargent has requested an amendment to their license in order to add a self-propelled rock crusher and remove two rock crushers which have been sold. The specific requirements of 40 C.F.R. Part 60, Subpart OOO will also be included in this license to detail the requirements for each rock crusher.

B. Emission Equipment

The following equipment is addressed in this Air Emission License Amendment:

Rock Crusher

Designation	Powered	Process Rate (tons/hour)	Date of Manufacture	Control Device
#810010 (McCloskey J50 Track Crusher)	Engine #7	300	2021	Spray Nozzles
#810002 (JCI FT2650 Jaw*)	Engine #6	300	2014	Spray Nozzles
#810003 (JCI FT2650 Jaw*)	Engine #2	300	2014	Spray Nozzles

* This equipment has been sold and will be removed from this license.

Engine

Unit ID	Max. Capacity (MMBtu/hr)	Max. Firing Rate (gal/hr)	Fuel Type	Date of Manuf.
Engine #7	2.2	16.0	distillate fuel	2021

C. Definitions

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.

Nonmetallic mineral processing plant means any combination of equipment that is used to crush or grind any nonmetallic mineral wherever located, including lime plants, power plants, steel mills, asphalt concrete plants, portland cement plants (not including concrete batch plants), or any other facility processing nonmetallic minerals.

Portable or Non-Road Engine means an internal combustion engine which is 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. This definition does NOT include engines which remain or will remain at a location (excluding storage locations) for more than 12 consecutive months or a shorter period of time for an engine located at a seasonal source. A location is any single site at a building, structure, facility, or installation. Any engine that replaces an engine at a location and that is intended to perform the same or similar function as the engine replaced will be included in calculating the consecutive time period.

An engine is not a non-road (portable) engine if it remains or will remain at a location for more than 12 consecutive months or for a shorter period of time if sited at a seasonal source. A seasonal source is a source that remains in a single location for two years or more and which operates for fewer than 12 months in a calendar year. If an engine operates at a seasonal source for one entire season, the engine does not meet the criteria of a non-road (portable) engine and is subject to applicable stationary engine requirements.

Records or Logs mean either hardcopy or electronic records.

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.

This amendment will not increase licensed emissions of any pollutant. Therefore, this amendment is determined to be a minor modification and has been processed as such.

E. Facility Classification

With the annual fuel limit on the engines, the facility is licensed as follows:

- As a synthetic minor source of air emissions for NO_x, because Sargent is subject to license restrictions that keep facility emissions below 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 new sources and modifications requires a demonstration that emissions are receiving Best Available Control Technology (BACT), as defined in 06-096 C.M.R. ch. 100. BACT is a top-down approach to selecting air emission controls considering economic, environmental, and energy impacts.

B. Nonmetallic Mineral Processing Plant

Rock crusher #810010 is a portable unit which was manufactured in 2021 with a rated capacity of 300 tons/hr. The nonmetallic mineral processing plant also consists of other equipment associated with Rock crusher #810010, such as screens and belt conveyors. The attached Engine #7 which powers this crusher also is used to drive tracks on the unit which move the crusher throughout the facility.

1. BACT Findings

The regulated pollutant from nonmetallic mineral processing plants is particulate matter. To meet the requirements of BPT for control of particulate matter emissions,

Sargent shall maintain water sprays on the nonmetallic mineral processing plant and operate as needed to control visible emissions.

Rock crusher #810010 is exempt from the requirements of *Visible Emissions Regulation*, 06-096 C.M.R. ch. 101 because it is subject to a visible emission standard under 40 C.F.R. Part 60, Subpart OOO.

2. New Source Performance Standards

The federal regulation *Standards of Performance for Nonmetallic Mineral Processing Plants*, 40 C.F.R. Part 60, Subpart OOO, applies to equipment at nonmetallic mineral processing plants with capacities greater than 25 ton/hr for fixed plants and 150 ton/hr for portable plants. The requirements of Subpart OOO apply to any crusher, grinding mill, screening operation, bucket elevator, belt conveyor, bagging operation, storage bin, or enclosed truck or railcar loading station at a nonmetallic mineral processing plant greater than the sizes listed above which commenced construction, modification, or reconstruction after August 31, 1983.

Rock crusher #810010 is part of a portable nonmetallic mineral processing plant with a maximum capacity of greater than 150 ton/hr and was manufactured after August 31, 1983. This crusher and its associated components are therefore affected facilities subject to 40 C.F.R. Part 60, Subpart OOO. **Any grinding mill, screening operation, bucket elevator, belt conveyor, bagging operation, storage bin, or enclosed truck or railcar loading station associated with this crusher is also an affected facility subject to 40 C.F.R. Part 60, Subpart OOO.** [40 C.F.R. §§ 60.670(c) and (e)]

a. Notification

Sargent shall submit notification to the Department and EPA of the date of initial startup of every affected facility (as listed above) postmarked within 15 days of the startup. This notification shall include a description of each affected facility, equipment manufacturer, and serial number of the equipment, if available. For a combination of affected facilities in a production line that begin actual initial startup on the same day, a single notification of startup may be submitted. For portable units, this notification shall also include both the home office and the current address or location of the portable plant. [40 C.F.R. § 60.676(i)]

As specified in the Order section of this license, the rock crushers and ancillary equipment subject to 40 C.F.R. Part 60, Subparts A and OOO, 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) pursuant to § 60.676(h). [40 C.F.R. §§ 60.676(b), (f), and (i)]

b. Standards

Subpart 000, Table 3 contains applicable visible emission requirements for affected facilities.

Visible emissions from Rock Crusher #810010 shall not exceed 12% opacity on a six-minute block average basis. [40 C.F.R. Part 60, Subpart 000, Table 3]

Visible emissions from any affected facility other than rock crushers, including transfer points on belt conveyors, portable screens, etc., which commenced construction, modification, or reconstruction before April 22, 2008, shall not exceed 10% opacity on a six-minute block average basis. [40 C.F.R. Part 60, Subpart 000, Table 3]

Visible emissions from any affected facility other than rock crushers, including transfer points on belt conveyors, portable screens, etc., which commenced construction, modification, or reconstruction on or after April 22, 2008, shall not exceed 7% opacity on a six-minute block average basis. [40 C.F.R. Part 60, Subpart 000, Table 3]

c. 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) and 60.676(b)(1)]

d. Testing Requirements

Subpart 000, § 60.675 requires that Sargent conduct an initial performance test for visible emissions from rock crusher #810010 and from all associated affected facilities subject to Subpart 000, potentially including **any associated grinding mill, screening operation, bucket elevator, belt conveyor, bagging operation, storage bin, and enclosed truck or railcar loading station.**

Testing shall be completed in accordance with the following:

- (1) An initial performance test shall 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) and 60.675(i)]
- (2) Each performance test shall be done using the methods set forth in 40 C.F.R. Part 60, Subpart OOO, § 60.675. [40 C.F.R. § 60.675(c)]
- (3) Sargent shall submit a test notice to the Department at least seven days prior to conducting a performance test. [40 C.F.R. § 60.675(g)]

Please note, although Sargent may submit notifications and conduct performance testing for multiple affected facilities as a group, any new affected facility subsequently brought on-site to replace or operate in conjunction with an affected facility must also comply with all applicable requirements of 40 C.F.R. Part 60, Subpart OOO including notification and testing requirements.

C. Engine #7

Engine #7 is a portable engine used to power and move the #810010 crusher throughout the facility. Engine #7 has a maximum capacity of 2.2 MMBtu/hr firing distillate fuel. The engine was manufactured in 2021. The fuel fired in Engine #7 will be subject to the facility-wide limit of 30,000 gallons/year on a calendar year total basis of distillate fuel with a maximum sulfur content not to exceed 15 ppm (0.0015% sulfur by weight). This fuel limit shall apply regardless of where the units are operated.

1. BACT Findings

The BACT emission limits for Engine #7 were based on the following:

PM/PM ₁₀ /PM _{2.5}	– 0.12 b/MMBtu from 06-096 C.M.R. ch. 115, BACT
SO ₂	– 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, BACT

The BACT emission limits for Engine #7 are the following:

Unit	PM (lb/hr)	PM ₁₀ (lb/hr)	PM _{2.5} (lb/hr)	SO ₂ (lb/hr)	NO _x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Engine #7	0.27	0.27	0.27	0.01	9.75	2.10	0.77

Visible emissions from Engine #7 shall not exceed 20% opacity on a six-minute block average basis.

2. Chapter 169

Stationary Generators, 06-096 C.M.R. ch. 169 (Chapter 169), is not applicable to Engine #7 as it is a portable engine.

3. New Source Performance Standards

Engine #7 is not subject to *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines*, 40 C.F.R. Part 60, Subpart IIII.

The definition of non-road engine in 40 C.F.R. § 1068.30 states that a non-road engine is an internal combustion engine that meets certain criteria, including: “By itself or in or on a piece of equipment, it is 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.” The regulation 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 for a shorter period of time if sited at a seasonal source. A seasonal source is a source that remains in a single location for two years or more and which operates for fewer than 12 months in a calendar year. If an engine operates at a seasonal source for one entire season, the engine does not meet the criteria of a non-road engine and is subject to applicable stationary engine requirements.

[40 C.F.R. § 60.4200]

Engine #7 is considered a non-road engine, as opposed to a stationary engine, since Engine #7 is portable and will be moved to various sites within the facility.

4. National Emission Standards for Hazardous Air Pollutants

Engine #7 is 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 of non-road engine states that a non-road engine is an internal combustion engine that meets certain criteria, including: “By itself or in

or on a piece of equipment, it is 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.” The regulation 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 for a shorter period of time if sited at a seasonal source. A seasonal source is a source that remains in a single location for two years or more and which operates for fewer than 12 months in a calendar year. If an engine operates at a seasonal source for one entire season, the engine does not meet the criteria of a non-road engine and is subject to applicable stationary engine requirements. [40 C.F.R. § 63.6585]

Engine #7 is considered a non-road engine, as opposed to a stationary engine, since Engine #7 is portable and will be moved to various sites within the facility.

D. Annual Emissions

This license amendment will not change the facility’s licensed annual emissions.

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 Amendment A-942-71-K-A, subject to the conditions found in Air Emission A-942-71-H-R, in the amendments A-942-71-I-M and A-942-71-J-M, and the following conditions.

Severability. The invalidity or unenforceability of any provision of this License Amendment 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.

SPECIFIC CONDITIONS

The following shall replace Specific Condition (16) of Air Emission License A-942-71-I-M.

(16) Nonmetallic Mineral Processing Plants

- A. Sargent shall install and maintain spray nozzles on rock crushers #810001, and #810010 and operate them as necessary to control visible emissions to the standards specified in this license. [06-096 C.M.R. ch. 115, BPT]
- B. Sargent shall maintain records detailing and quantifying the hours of operation on a daily basis for all of the rock crushers for each day the unit is operated. The operation records shall be kept on-site at the rock crushing location. [06-096 C.M.R. ch. 115, BPT]
- C. NSPS Subpart OOO Requirements

Sargent shall comply with all requirements of 40 C.F.R. Part 60, Subpart OOO applicable to rock crushers #810001, and #810010 and each associated affected facility including any grinding mill, screening operation, bucket elevator, belt conveyor, bagging operation, storage bin, and enclosed truck or railcar loading station.

- 1. Sargent shall submit notification to the Department of the date of initial startup of any affected facility postmarked within 15 days of the startup. This notification shall include a description of each affected facility, equipment manufacturer, and serial number of the equipment, if available. For a combination of affected facilities in a production line that begin actual initial startup on the same day, a single notification of startup may be submitted. For portable units, this notification shall also include both the home office and the current address or location of the portable plant. [40 C.F.R. § 60.676(i)]
- 2. Visible emissions from Rock Crusher #810001 shall not exceed 15% opacity on a six-minute block average basis. [40 C.F.R. Part 60, Subpart OOO, Table 3]
- 3. Visible emissions from Rock Crusher #810010 shall each not exceed 12% opacity on a six-minute block average basis. [40 C.F.R. Part 60, Subpart OOO, Table 3]
- 4. Visible emissions from any affected facility other than rock crushers, including transfer points on belt conveyors, portable screens, etc., which commenced construction, modification, or reconstruction before April 22, 2008, shall not exceed 10% opacity on a six-minute block average basis. [40 C.F.R. Part 60, Subpart OOO, Table 3]

5. Visible emissions from any affected facility other than rock crushers, including transfer points on belt conveyors, portable screens, etc., which commenced construction, modification, or reconstruction on or after April 22, 2008, shall not exceed 7% opacity on a six-minute block average basis. [40 C.F.R. Part 60, Subpart OOO, Table 3]
6. 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) and 60.676(b)(1)]
7. An initial performance test shall be completed on Rock Crusher #810010 in accordance with the applicable sections of 40 C.F.R. § 60.675. The performance test shall be conducted 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 unit 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) and 60.675(i)]
8. An initial performance test shall be completed on any affected facilities operated with a rock crusher subject to 40 C.F.R. Part 60, Subpart OOO in accordance with the applicable sections of 40 C.F.R. § 60.675. This potentially includes each associated grinding mill, screening operation, bucket elevator, belt conveyor, bagging operation, storage bin, and enclosed truck or railcar loading station. The performance test shall be conducted 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 unit 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) and 60.675(i)]
9. Sargent shall submit a test notice to the Department at least 30 days prior to conducting a performance test. Although 40 C.F.R. Part 60, Subpart OOO requires pretest notification of at least seven days prior to conducting a performance test (see 40 C.F.R. § 60.675(g)), the Department requires pretest notification a minimum of 30 days prior to the scheduled date of the performance test unless a variance of this requirement is preapproved by the Department. Compliance with the state 30-day notification requirement also satisfies the federal seven-day notification requirement. [06-096 C.M.R. ch. 115, BPT and 40 C.F.R. § 60.675(g)]

The following shall replace Specific Condition (17) of Air Emission License A-942-71-J-M.

(17) **Engines**

A. Fuel Use

1. Engines #4, and #7 are licensed to fire distillate fuel with a maximum sulfur content not to exceed 15 ppm (0.0015% sulfur by weight). Compliance shall be demonstrated by fuel delivery receipts from the supplier, fuel supplier certification, certificate of analysis, or testing of the tank containing the fuel to be fired. [06-096 C.M.R. ch. 115, BACT and BPT]
2. Total fuel use for Engines #4, and #7 combined shall not exceed 30,000 gal/yr of distillate fuel, regardless of where the units are operated. 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 basis. [06-096 C.M.R. ch. 115, BPT]

B. Emissions shall not exceed the following:

Unit	Pollutant	lb/MMBtu	Origin and Authority
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, BACT and BPT]:

Unit	PM (lb/hr)	PM ₁₀ (lb/hr)	PM _{2.5} (lb/hr)	SO ₂ (lb/hr)	NO _x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Engine #4	0.43	0.43	0.43	0.01	15.88	3.42	1.26
Engine #7	0.27	0.27	0.27	0.01	9.75	2.10	0.77

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D. Visible Emissions

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

DONE AND DATED IN AUGUSTA, MAINE THIS 15th DAY OF JUNE, 2023.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: _____ for
MÉLANIE LOYZIM, COMMISSIONER

The term of this amendment shall be concurrent with the term of Air Emission License A-942-71-H-R.

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: 4/10/23

Date of application acceptance: 4/11/23

Date filed with the Board of Environmental Protection:

This Order prepared by Chris Ham, Bureau of Air Quality.

FILED
JUN 15, 2023
State of Maine
Board of Environmental Protection