



DEPARTMENT ORDER

**Sargent Corporation
Penobscot County
Plymouth, Maine
A-677-71-I-A**

**Departmental
Findings of Fact and Order
Air Emission License
Amendment #1**

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 (Department) finds the following facts:

I. REGISTRATION

A. Introduction

Sargent Corporation (Sargent) was issued Air Emission License A-677-71-H-R on December 20, 2017, for the operation of emission sources associated with their portable crushed stone and gravel facility.

Sargent has requested an amendment to their license in order to remove *existing* Diesel Unit #4 (#99210) from their license and replace it with *new* Diesel Unit #4 (#99208).

The equipment addressed in this license amendment is located at 2363 Moosehead Trail, Plymouth, Maine.

B. Emission Equipment

The following equipment is addressed in this air emission license amendment:

Engines

Equipment	Max. Input Capacity (MMBtu/hr)	Rated Output Capacity (kW)	Fuel Type, % sulfur	Firing Rate (gal/hr)	Date of Manuf.	Date of Install.
Diesel Unit #4 (#99208)*	2.7	317	Distillate fuel, 0.0015%	19.8	1991	2018

*New to this license; replaces Diesel Unit #4 (#99210)

The *existing* Diesel Unit #4 (#99210) has been removed from the facility and is hereby removed from the facility's air emission license.

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.

Portable Engine. For the purposes of this license, *portable 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.

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, but does include the installation of new or modified equipment; therefore, this amendment is determined to be a minor modification as defined in the Department's *Definitions Regulation*, 06-096 Code of Maine Rules (C.M.R.) ch. 100 and has been processed as such.

E. Facility Classification

With the annual fuel limit on Diesel Units #1 and #4, 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 (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 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 *Definitions Regulation*, 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. Diesel Unit #4

Diesel Unit #4 is a portable engine used to power the rock crushers. Diesel Unit #4 will occasionally be moved off-site for use at other Sargent facilities. Diesel Unit #4 has a maximum capacity of 2.7 MMBtu/hr (317 kW) which fires distillate fuel at a maximum rate of 19.8 gal/hr. Diesel Unit #4 was manufactured in 1991 and brought to the facility in 2018.

1. BACT Findings

The BACT emission limits for Diesel Unit #4 are based on the following:

PM/PM₁₀ - 0.12 lb/MMBtu from 06-096 C.M.R. ch. 115, BACT
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 - 0.36 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 Diesel Unit #4 are the following:

Unit	PM (lb/hr)	PM ₁₀ (lb/hr)	SO ₂ (lb/hr)	NO _x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Diesel Unit #4	0.33	0.33	0.01	11.95	2.57	0.95

Visible emissions from Diesel Unit #4 shall not exceed 20% opacity on a six-minute block average basis.

The fuel fired in Diesel Units #1 and #4 combined shall be limited to 60,000 gallons/year of distillate fuel with a maximum sulfur content not to exceed 15 ppm (0.0015% by weight) on a calendar year total basis.

2. New Source Performance Standards (NSPS)

Diesel Unit #4 is considered a non-road engine, as opposed to a stationary engine, since it is portable and will be moved to various sites with the rock crushers. Therefore, Diesel Unit #4 is not subject to the New Source Performance Standards (NSPS) *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (CI ICE)*, 40 Code of Federal Regulations (C.F.R.) Part 60, Subpart III. [40 C.F.R. § 60.4200]

3. National Emission Standards for Hazardous Air Pollutants (NESHAP):
40 C.F.R. Part 63, Subpart ZZZZ

Diesel Unit #4 is considered a non-road engine, as opposed to a stationary engine, since the unit is portable and will be moved to various sites with the rock crushers. Therefore, Diesel Unit #4 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 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]

C. Annual Emissions

This 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, and
- will not violate applicable ambient air quality standards in conjunction with emissions from other sources.

The Department hereby grants Air Emission License Amendment A-677-71-I-A subject to the conditions found in Air Emission License A-677-71-H-R, and the following condition.

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 Condition shall replace Condition (17) of Air Emission License A-677-71-H-R (December 20, 2017):

(17) Diesel Units #1 and #4

A. Fuel Use

1. Diesel Units #1 and #4 are licensed to fire distillate fuel with a maximum sulfur content not to exceed 15 ppm (0.0015% by weight). [A-677-71-F-A (5/3/2016), BACT & 06-096 C.M.R. ch. 115, BPT]
2. Total fuel use for Diesel Units #1 and #4 combined shall not exceed 60,000 gallons/year of distillate fuel on a calendar year total basis. Compliance shall be demonstrated by fuel records from the supplier showing the quantity, type, and sulfur content of fuel delivered. Fuel use records shall be kept on a monthly and calendar year total basis. [A-677-71-F-A (5/3/2016), BACT & 06-096 C.M.R. ch. 115, BACT]

B. Emissions shall not exceed the following:

Unit	Pollutant	lb/MMBtu	Origin and Authority
Diesel Unit #1	PM	0.12	06-096 C.M.R. ch. 103, § 2.B.(1)(a)

C. Emissions shall not exceed the following [A-677-71-F-A (5/3/2016), BACT & 06-096 C.M.R. ch. 115, BACT]:

Unit	PM (lb/hr)	PM ₁₀ (lb/hr)	SO ₂ (lb/hr)	NO _x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Diesel Unit #1	0.88	0.88	0.01	23.36	6.21	0.66
Diesel Unit #4	0.33	0.33	0.01	11.95	2.57	0.95

D. Visible Emissions

1. Visible emissions from Diesel Unit #1 shall not exceed 20% opacity on a six-minute block average basis. [A-677-71-F-A (5/3/2016), BACT]
2. Visible emissions from Diesel Unit #4 shall not exceed 20% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 115, BACT]

DONE AND DATED IN AUGUSTA, MAINE THIS 14 DAY OF May, 2018.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: Paul Mercer
PAUL MERCER, COMMISSIONER

The term of this amendment shall be concurrent with the term of Air Emission License A-677-71-H-R.

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: April 19, 2018

Date of application acceptance: April 23, 2018

Date filed with the Board of Environmental Protection:

This Order prepared by Jonathan E. Rice, Bureau of Air Quality.

