



DEPARTMENT ORDER

Shaw Brothers Construction, Inc.
Cumberland County
Gorham, Maine
A-425-71-P-M

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

Shaw Brothers Construction, Inc. (Shaw Brothers) was issued Air Emission License A-425-71-L-R/M on 6/17/2014, for the operation of emission sources associated with their crushed stone and gravel facility. The license was subsequently amended on 1/25/2018 (A-425-71-N-A), and on 10/26/2018 (A-425-71-O-A).

The main office is located at 341 Mosher Road, Gorham, Maine.

Shaw Brothers has requested a minor revision to their license in order to convert Jaw Crusher L416 and Cone Crusher LT300 to electric power and remove Cone Crusher L416, Diesel #6, and Diesel #7 from their license.

Additionally, updates have been made to the visible emission limits to align with the recently revised *Visible Emissions Regulation*, 06-096 C.M.R. ch. 101.

B. Emission Equipment

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

Rock Crushers

Designation	Powered	Process Rate (tons/hour)	Date of Manufacture	Control Device
Jaw Crusher L416	electric*	100	2006	Spray Nozzles
Cone Crusher LT300	electric*	300	2002	Spray Nozzles

*Jaw Crusher L416 and Cone Crusher LT300 were previously powered by Diesel #6 and Diesel #7. These crushers have been converted to line power.

The following equipment has been removed from the facility:

Rock Crushers

Designation	Powered	Process Rate (tons/hour)	Date of Manufacture	Control Device
Cone Crusher L416	Diesel #6	100	2006	Spray Nozzles

Engines

Unit ID	Max. Capacity (MMBtu/hr)	Max. Firing Rate (gal/hr)	Fuel Type, % sulfur	Date of Manuf.
Diesel #6-Cat 3456	5.3	38.5	distillate fuel, 0.0015%	2006
Diesel #7-Cat C-12	3.6	26.0	distillate fuel, 0.0015%	2002

Shaw Brothers may operate small stationary engines smaller than 0.5 MMBtu/hr. These engines are considered insignificant activities and are not required to be included in this license. However, they are still subject to applicable State and Federal regulations. More information regarding requirements for small stationary engines is available on the Department's website at the link below.

<http://www.maine.gov/dep/air/publications/docs/SmallRICEGuidance.pdf>

Additionally, Shaw Brothers may operate portable engines used for maintenance or emergency-only purposes. These engines are considered insignificant activities and are not required to be included in this license. However, they may still be subject to applicable State and Federal regulations.

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 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.

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

E. Facility Classification

With the annual fuel limit on the diesel generators used to power the rock crushing equipment, the facility is licensed as follows:

- As a synthetic minor source of air emissions, because Shaw Brothers 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.

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

The Department hereby grants Air Emission License Amendment A-425-71-P-M, subject to the conditions found in Air Emission A-425-71-L-R/M, in amendments A-425-71-N-A and A-425-71-O-A, 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 Condition (16)(A) of Air Emission License A-425-71-O-A dated 10/26/2018.

(16) Rock Crushers

- A. Shaw Brothers shall install and maintain spray nozzles for particulate matter control on all of the jaw and cone rock crusher units (Jaw Crushers L100 L105 #2, L125, L416, LT106 #1, LT106 #2 and LT4448, and Cone Crushers L125, LT300, FT200, T100#1, T100 #2 and LT220D) and operate them as necessary to limit visible emissions to no greater than 10% opacity on a six (6) minute block average basis for each rock crusher. [06-096 C.M.R. ch. 115, BACT/BPT and 06-096 C.M.R. ch. 101]

The following shall replace Condition (17)(A)(1) of Air Emission License A-425-71-O-A dated 10/26/2018.

(17) Portable Diesel Generators

A. Fuel Use

1. Diesels #1, #3, #4, #8, #9, #10, #11 and #12 shall fire only distillate fuel with a maximum sulfur content not to exceed 15 ppm (0.0015% sulfur, by weight). [06-096 C.M.R. ch. 115, BACT]

The following shall replace Condition (17)(C) of Air Emission License A-425-71-O-A dated 10/26/2018.

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

Unit	PM (lb/hr)	PM ₁₀ (lb/hr)	SO ₂ (lb/hr)	NO _x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Diesel #1 – Cat 3306	0.3	0.3	0.01	9.7	2.1	0.8
Diesel #3 – Cat 3406	0.4	0.4	0.01	15.9	3.4	1.3
Diesel #4 – Cat 3406	0.4	0.4	0.01	15.9	3.4	1.3
Diesel #8 – Cat 3306	0.3	0.3	0.01	9.7	2.1	0.8
Diesel #9 – JD 6081	0.2	0.2	0.01	5.8	1.3	0.5
Diesel #10 – Cat 7.1	0.6	0.6	0.01	8.4	1.8	0.7
Diesel #11 – Cat 7.1	0.6	0.6	0.01	8.4	1.8	0.7
Diesel #12 – Cat C-13	0.9	0.9	0.01	13.0	2.8	1.1

The following shall replace Condition (17)(D) of Air Emission License A-425-71-N-A dated 1/25/2018.

(17) Portable Diesel Generators

D. Visible emissions from Diesels #1, #3, #4, #8 and #9 shall not exceed 20% opacity on a six (6) minute block average basis, except for periods of startup during which time Shaw Brothers may comply with the following work practice standards in lieu of the numerical opacity standard. [06-096 C.M.R. ch. 115, BPT]

1. Shaw Brothers shall maintain a log (written or electronic) of the date, time, and duration of all generator startups.
2. The generators shall be operated in accordance with the manufacturer's emission-related operating instructions.
3. Shaw Brothers shall minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations shall apply.
4. The generator, including any associated air pollution control equipment, shall be operated at all times in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Department that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the unit.

The following shall replace Condition (17)(B) of Air Emission License A-425-71-L-R/M dated 6/17/2014.

(17) Portable Diesel Generators

B. Emissions shall not exceed the following:

Unit	Pollutant	lb/MMBtu	Origin and Authority
Diesel #3 - Cat 3406	PM	0.12	06-096 CMR 103(2)(B)(1)(a)
Diesel #4 - Cat 3406	PM	0.12	06-096 CMR 103(2)(B)(1)(a)

The following shall replace Condition (18) of Air Emission License A-425-71-L-R/M dated 6/17/2014.

(18) Stockpiles and Roadways

Visible emissions from any fugitive emission source (including stockpiles and roadways) shall not exceed 20% opacity on a five-minute block average basis.

[06-096 C.M.R. ch. 115, BPT]

The following shall replace Condition (19) of Air Emission License A-425-71-L-R/M dated 6/17/2014.

(19) **General Process Sources**

Visible emissions from any general process that is not part of a nonmetallic mineral processing plant shall not exceed 20% opacity on a six-minute block average basis.
[06-096 C.M.R. ch. 115, BPT]

DONE AND DATED IN AUGUSTA, MAINE THIS 1st DAY OF August, 2019.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: 
GERALD D. REID, COMMISSIONER

The term of this amendment shall be concurrent with the term of Air Emission License A-425-71-L-R/M.

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: 7/8/2019
Date of application acceptance: 7/8/2019

Date filed with the Board of Environmental Protection:

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

