



DEPARTMENT ORDER

Shaw Brothers Construction, Inc.
Cumberland County
Gorham, Maine
A-425-71-S-R/A

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

FINDINGS OF FACT

After review of the air emission license renewal and 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) has applied to renew their Air Emission License for the operation of their crushed stone and gravel facility located at 341 Mosher Road, Gorham, Maine.

Shaw Brothers has also requested an amendment to their license in order to make the following changes:

1. Add a new rock crusher with associated engine;
2. Change the names of existing equipment to better align with the facility's designations; and
3. Remove two rock crushers and two engines.

B. Emission Equipment

The following equipment is addressed in this Air Emission License:

Rock Crushers

Designation	Previous Designation	Powered	Process Rate (tons/hour)	Date of Manufacture	Control Device
SB1458	Jaw Crusher LT100	Diesel #1	100	1996	Spray Nozzles
SB1421	Jaw Crusher LT120	Diesel #13	595	2021	Spray Nozzles
SB1413	Jaw Crusher LT106 #1	Diesel #10	100	2017	Spray Nozzles

Designation	Previous Designation	Powered	Process Rate (tons/hour)	Date of Manufacture	Control Device
SB1414	Jaw Crusher LT106 #2	Diesel #11	100	2017	Spray Nozzles
SB1463	Jaw Crusher 3042	Grid Powered	100	2006	Spray Nozzles
SB1485	Cone Crusher HP300	Grid Powered	300	1997	Spray Nozzles
SB1401	Cone Crusher LT300	Diesel #7	300	2002	Spray Nozzles
SB1416	Cone Crusher LT220D	Diesel #12	250	2018	Spray Nozzles
Telsmith T400 Cone Crusher #1	N/A	Grid Powered	600	2017	Spray Nozzles
Telsmith T400 Cone Crusher #2	N/A	Grid Powered	600	2017	Spray Nozzles
Telsmith 4448 Jaw Crusher	N/A	Grid Powered	1030	2017	Spray Nozzles
SB1424 *	N/A	Diesel #14	440	2023	Spray Nozzles
<i>Jaw Crusher LT125 **</i>	<i>N/A</i>	<i>N/A</i>	<i>470</i>	<i>1994</i>	<i>Spray Nozzles</i>
<i>Cone Crusher FT200 **</i>	<i>N/A</i>	<i>N/A</i>	<i>200</i>	<i>2005</i>	<i>Spray Nozzles</i>

* This equipment is new to this license.

** This equipment has been sold and removed from the facility.

Engines

Unit ID	Max. Capacity (MMBtu/hr)	Max. Firing Rate (gal/hr)	Fuel Type	Date of Manuf.
Diesel #1	2.2	15.9	distillate fuel	1996
Diesel #7	3.6	26.0	distillate fuel	2002
Diesel #10	1.9	13.6	distillate fuel	2017
Diesel #11	1.9	13.6	distillate fuel	2017
Diesel #12	2.9	21.3	distillate fuel	2018
Diesel #13	2.4	17.5	distillate fuel	2021
Diesel #14 *	N/A	N/A	distillate fuel	2024
<i>Diesel #3 **</i>	<i>3.6</i>	<i>26.0</i>	<i>distillate fuel</i>	<i>1994</i>
<i>Diesel #9 **</i>	<i>1.3</i>	<i>9.6</i>	<i>distillate fuel</i>	<i>2005</i>

* This equipment is categorically exempt from stationary source air emission licensing as the unit is and integral part of a self-propelled rock crusher and provides the motive energy to propel the equipment. In is included in this license for completeness purposes only. [40 C.F.R. § 1068.30]

** This equipment has been sold and removed from the facility.

Shaw Brothers may operate other nonmetallic mineral processing equipment not explicitly listed including grinding mills, screening operations, bucket elevators, belt conveyors, bagging operations, storage bins, and enclosed truck or railcar loading stations. Requirements for this equipment are included in sections of this license for Nonmetallic Mineral Processing Plants.

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 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 date this license was issued.

Shaw Brothers has applied to renew currently licensed emission units as well as amend their license as addressed in Section I(A) above.

The modification of a minor source is considered a major or minor modification based on whether or not expected emission increases exceed the “Significant Emissions” levels as defined in the Department’s *Definitions Regulation*, 06-096 Code of Maine Rules (C.M.R.) ch. 100. The emission increases are determined by subtracting the current licensed annual emissions preceding the modification from the maximum future licensed annual emissions, as follows:

Pollutant	Current License (tpy)	Future License (tpy)	Net Change (tpy)	Significant Emission Levels
PM	0.6	0.7	0.1	100
PM ₁₀	0.6	0.7	0.1	100
PM _{2.5}	0.6	0.7	0.1	100
SO ₂	0.1	0.1	0.0	100
NO _x	22.7	22.7	0.0	100
CO	4.9	4.9	0.0	100
VOC	1.8	1.8	0.0	50*

* Shaw Brothers is located in an area of the state included in the Ozone Transport Region. Therefore, the significant emission level for VOC is 50 tpy.

Therefore, this license is considered to be both a renewal and a minor modification and has been processed through *Major and Minor Source Air Emission License Regulations*, 06-096 Code of Maine Rules C.M.R. ch. 115.

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 criteria pollutants, because Shaw Brothers is subject to license restrictions that keep facility emissions below major source thresholds for NO_x; 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.

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. Nonmetallic Mineral Processing Plants

Rock Crushers SB1458, SB1421, SB1413, SB1414, SB1463, SB1485, SB1401, SB1416, and SB1424 are portable units that were manufactured in 1996, 2021, 2017, 1986, 1997, 2002, 2018, and 2023, respectively, with rated capacities of 100, 595, 100, 100, 100, 300, 300, 250, and 440 tons/hr, respectively.

Rock Crushers Telsmith T400 Cone Crushers #1 and #2, and Telsmith 4448 Jaw Crusher are stationary units which were manufactured in 2017, with rated capacities of 600, 600, and 1030 tons/hr, respectively.

The nonmetallic mineral processing plant also consists of other equipment associated with the rock crushers, such as screens and belt conveyors.

1. BACT and BPT Findings

The regulated pollutant from nonmetallic mineral processing plants is particulate matter. To meet the requirements of BPT for control of particulate matter emissions, Shaw Brothers shall install and maintain water sprays on the nonmetallic mineral processing plants and operate as needed, when the units are in operation, to control visible emissions.

2. Visible Emissions

Visible emissions from Rock Crushers SB1458, SB1421, SB1413, SB1414, SB1463, SB1485, SB1401, SB1416, SB1424, Telsmith T400 Cone Crushers #1 and #2, and Telsmith 4448 Jaw Crusher shall each be limited to no greater than 10% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 101, § 4(B)(2)]

Visible emissions from nonmetallic mineral processing plant equipment other than crushers (transfer points on belt conveyors, screening operations, etc.) associated with Rock Crushers SB1458, SB1413, SB1414, and SB1463 shall not exceed 20% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 101, § 4(B)(4)]

3. 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 Crushers SB1458, SB1413, SB1414, and SB1463 are each part of a nonmetallic mineral processing plant which is physically limited to a maximum capacity of 150 ton/hr or less. Therefore, this equipment is not subject to 40 C.F.R. Part 60, Subpart OOO. [40 C.F.R. § 60.670(c)]

Rock Crushers SB1421, SB1485, SB1401, SB1416, SB1424, Telsmith T400 Cone Crushers #1 and #2, and Telsmith 4448 Jaw Crusher are each part of a nonmetallic mineral processing plant with maximum capacities greater than the applicability threshold of 40 C.F.R. Part 60, Subpart OOO and were manufactured after August 31, 1983. These crushers 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 these crushers are also affected facilities subject to 40 C.F.R. Part 60, Subpart OOO. [40 C.F.R. §§ 60.670(c) and (e)]

a. Notification

Shaw Brothers shall submit notification to the Department and EPA of the date of initial startup of Rock Crusher SB1424 postmarked within 15 days of the startup. This notification shall include a description of the 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, for the rock crushers and ancillary equipment subject to 40 C.F.R. Part 60, Subparts A and OOO, Shaw Brothers 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 OOO, Table 3 contains applicable visible emission requirements for affected facilities.

Visible emissions from Rock Crushers SB1485 and SB1401 shall not exceed 15% opacity on a six-minute block average basis. [40 C.F.R. Part 60, Subpart OOO, Table 3]

Visible emissions from Rock Crushers SB1421, SB1416, SB1424, Telsmith T400 Cone Crushers #1 and #2, and Telsmith 4448 Jaw Crusher shall each not exceed 12% opacity on a six-minute block average basis. [40 C.F.R. Part 60, Subpart OOO, Table 3]

The Department has determined that the visible emission limit in 06-096 C.M.R. ch. 101 applicable to the rock crushers is more stringent than the applicable limit in 40 C.F.R. Part 60, Subpart OOO. Therefore, the visible emission limit for Rock Crushers SB1421, SB1485, SB1401, SB1416, SB1424, Telsmith T400 Cone Crushers #1 and #2, and Telsmith 4448 Jaw Crusher has been streamlined to the more stringent limit, and only this more stringent limit shall be included in the air emission license.

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]

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]

The Department has determined that the visible emission limit in 40 C.F.R. Part 60, Subpart OOO applicable to affected equipment other than rock crushers is more stringent than the applicable limit in 06-096 C.M.R. ch. 101. Therefore, the visible emission limit for has been streamlined to the more stringent limit, and only this more stringent limit shall be included in the air emission license.

c. Monitoring Requirements

Shaw Brothers shall maintain records detailing the maintenance on particulate matter control equipment including spray nozzles. Shaw Brothers 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 OOO, § 60.675 requires that Shaw Brothers conduct an initial performance test for visible emissions from Rock Crusher SB1424 and from all associated affected facilities subject to Subpart OOO, 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) Shaw Brothers 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)]

Note: Although some federal standards, such as 40 C.F.R. Part 60, Subpart OOO, allow for a shorter pretest notification period, 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.

Please note, although Shaw Brothers 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. Engines

Diesels #1, #7, #10, #11, #12, and #13 are portable engines used to power the mineral processing equipment throughout the facility. Diesels #1, #7, #10, #11, #12, and #13 have maximum capacities of 2.2, 3.6, 1.9, 1.9, 1.9, 2.9, and 2.4 MMBtu/hr, respectively, firing distillate fuel. Diesels #1, #7, #10, #11, #12, and #13 were manufactured in 1996, 2002, 2017, 2017, 2018, and 2021, respectively. The fuel fired in the above listed engines combined shall be limited to 75,000 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. BPT Findings

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

PM/PM ₁₀ /PM _{2.5}	– 0.12 b/MMBtu from 06-096 C.M.R. ch. 103 for Diesel #7 and 06-096 C.M.R. ch. 115, BPT for Diesels #1, #10, #11, #12, and #13
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 3.4-1 dated 10/96
CO	– 0.95 lb/MMBtu from AP-42 Table 3.4-1 dated 10/96
VOC	– 0.36 lb/MMBtu from AP-42 Table 3.4-1 dated 10/96
Visible Emissions	– 06-096 C.M.R. ch. 101

The BPT emission limits for the engines are the following:

Unit	Pollutant	lb/MMBtu
Diesel #7	PM	0.12

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)
Diesel #1	2.2	15.9	0.27	0.27	0.27	0.01	9.71
Diesel #7	3.6	26.0	0.44	0.44	0.44	0.01	15.88
Diesel #10	1.9	13.6	0.23	0.23	0.23	0.01	8.38
Diesel #11	1.9	13.6	0.23	0.23	0.23	0.01	8.38
Diesel #12	2.9	21.3	0.35	0.35	0.35	0.01	12.79
Diesel #13	2.4	17.5	0.29	0.29	0.29	0.01	10.59

Visible emissions from Diesels #10, #11, #12, and #13 shall each not exceed 20% opacity on a six-minute block average basis.

Visible emissions from Diesels #1 and #7 shall each not exceed 20% opacity on a six-minute block average basis except for periods of startup, during which time Shaw Brothers shall either meet the normal operating visible emissions standard or the following work practice standards and alternative visible emissions standard.

- a. The duration of the startup shall not exceed 30 minutes per event;
- b. Visible emissions shall not exceed 50% opacity on a six-minute block average basis; and
- c. Shaw Brothers shall keep records of the date, time, and duration of each startup.

Use of the work practice standards and alternative visible emissions standard in lieu of the normal operating standard is limited to no more than once per day.

Note: This does not limit the engine to one startup per day. It only limits the use of the alternative emission standard to once per day.

2. Chapter 169

Diesels #1, #7, #10, #11, #12, and #13 are portable engines and are therefore exempt from *Stationary Generators*, 06-096 C.M.R. ch. 169 pursuant to section 1.

3. New Source Performance Standards

Diesels #1, #7, #10, #11, #12, and #13 are not subject to *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines*, 40 C.F.R. Part 60, Subpart III.

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.” The regulation further states at 40 C.F.R. § 1068.30 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]

Diesels #1, #7, #10, #11, #12, and #13 are considered non-road engines, as opposed to stationary engines, since the units are portable and will be moved to various locations.

4. National Emission Standards for Hazardous Air Pollutants

Diesels #1, #7, #10, #11, #12, and #13 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. These units are considered non-road engines, as opposed to stationary engines, since they are portable and will be moved to various locations.

D. General Process Emissions

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.

E. Fugitive Emissions Including Stock Piles and Roadways

Shaw Brothers shall not cause emissions of any fugitive dust during any period of construction, reconstruction, or operation without taking reasonable precautions. Such reasonable precautions shall be included in the facility’s continuing program of best management practices for suppression of fugitive particulate matter. See 06-096 C.M.R. ch. 101, § 4(C) for a list of potential reasonable precautions.

Shaw Brothers shall not cause or allow visible emissions within 20 feet of ground level, measured as any level of opacity and not including water vapor, beyond the legal boundary of the property on which such emissions occur. Compliance with this standard shall be determined pursuant to 40 C.F.R. Part 60, Appendix A, Method 22.

F. Performance Test Protocol

For any performance testing required by this license, Shaw Brothers shall submit to the Department for approval a performance test protocol, as outlined in the Department's Performance Testing Guidance, at least 30 days prior to the scheduled date of the performance test. [06-096 C.M.R. ch. 115, BPT]

Note: Although some federal standards, such as 40 C.F.R. Part 60, Subpart OOO, allow for a shorter pretest notification period, 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.

The Department's Performance Testing Guidance is available online at:

<https://www.maine.gov/dep/air/emissions/testing.html>

G. Annual Emissions

The table below provides an estimate of facility-wide annual emissions for the purposes of calculating the facility's annual air license fee and establishing the facility's potential to emit (PTE). Only licensed equipment is included, i.e., emissions from insignificant activities are excluded. Similarly, unquantifiable fugitive particulate matter emissions are not included except when required by state or federal regulations. Maximum potential emissions were calculated based on firing 75,000 gal/year of distillate fuel in the engines, combined.

This information does not represent a comprehensive list of license restrictions or permissions. That information is provided in the Order section of this license.

Total Licensed Annual Emissions for the Facility

Tons/year

(used to calculate the annual license fee)

	PM	PM₁₀	PM_{2.5}	SO₂	NO_x	CO	VOC
Engines	0.7	0.7	0.7	0.1	22.7	4.9	1.9
Total TPY	0.7	0.7	0.7	0.1	22.7	4.9	1.9

Pollutant	Tons/year
Single HAP	9.9
Total HAP	24.9

III. AMBIENT AIR QUALITY ANALYSIS

The level of ambient air quality impact modeling required for a minor source to demonstrate that Ambient Air Quality Standards (AAQS) will not be exceeded 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
PM _{2.5}	15
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.

This determination is based on information provided by the applicant regarding licensed emission units. If the Department determines that any parameter (e.g., stack size, configuration, flow rate, emission rates, nearby structures, etc.) deviates from what was included in the application, the Department may require Shaw Brothers to submit additional information and may require an ambient air quality impact analysis at that time.

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-425-71-S-R/A, 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 beginning actual 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 the written test report by the Department, or another alternative timeframe approved by the Department, 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 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]
- (16) The licensee 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). [06-096 C.M.R. ch. 115]

SPECIFIC CONDITIONS

(17) Nonmetallic Mineral Processing Plants

- A. Shaw Brothers shall install and maintain spray nozzles for control of particulate matter on the nonmetallic mineral processing plants and operate as needed to control visible emissions when the units are in operation. [06-096 C.M.R. ch. 115, BPT and BACT]
- B. Shaw Brothers 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. Visible emissions from Rock Crushers SB1458, SB1421, SB1413, SB1414, SB1463, SB1485, SB1401, SB1416, SB1424, Telsmith T400 Cone Crushers #1 and #2, and

Telsmith 4448 Jaw Crusher shall each be limited to no greater than 10% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 101, § 4(B)(2)]

- D. Visible emissions from nonmetallic mineral processing plant equipment other than crushers (transfer points on belt conveyors, screening operations, etc.) associated with Rock Crushers SB1458, SB1413, SB1414, and SB1463 shall not exceed 20% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 101, § 4(B)(4)]
- E. Rock Crushers SB1458, SB1413, SB1414, and SB1463 shall not be attached or clamped via cable, chain, turnbuckle, bolt, or other means (except electrical connections) to any anchor, slab, or structure (including bedrock) that must be removed prior to transportation. [06-096 C.M.R. ch. 115, BPT and 40 C.F.R. § 60.670(c)(2)]
- F. NSPS Subpart OOO Requirements

Shaw Brothers shall comply with all requirements of 40 C.F.R. Part 60, Subpart OOO applicable to Rock Crushers SB1421, SB1485, SB1401, SB1416, SB1424, Telsmith T400 Cone Crushers #1 and #2, Telsmith 4448 Jaw Crusher, 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 including but not limited to, the following.

1. Shaw Brothers 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 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]
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 OOO, Table 3]

4. Shaw Brothers shall maintain records detailing the maintenance on particulate matter control equipment including spray nozzles. Shaw Brothers 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)]
5. An initial performance test shall be completed on Rock Crusher SB1424 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)]
6. 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)]
7. Shaw Brothers shall submit a test notice to the Department 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)]

Note: Although some federal standards, such as 40 C.F.R. Part 60, Subpart OOO, allow for a shorter pretest notification period, 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.
[06-096 C.F.R. ch. 115, BPT]

(18) **Engines**

A. Fuel Use

1. Diesels #1, #7, #10, #11, #12, and #13 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 fuel in the tank on-site. [06-096 C.M.R. ch. 115, BPT]
2. Total fuel use for Diesels #1, #7, #10, #11, #12, and #13 combined shall not exceed 75,000 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. [06-096 C.M.R. ch. 115, BPT]

B. Shaw Brothers shall maintain records which demonstrate that Diesels #1, #7, #10, #11, #12, and #13 are relocated and operated on a basis which maintains their classification of non-road (portable) engine(s). [06-096 C.M.R. ch. 115, BPT]

C. Emissions shall not exceed the following:

Unit	Pollutant	lb/MMBtu	Origin and Authority
Diesel #7	PM	0.12	06-096 C.M.R. ch. 103, § (2)(B)(1)(a)

D. Emissions shall not exceed the following [06-096 C.M.R. ch. 115, 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)
Diesel #1	2.2	15.9	0.27	0.27	0.27	0.01	9.71
Diesel #7	3.6	26.0	0.44	0.44	0.44	0.01	15.88
Diesel #10	1.9	13.6	0.23	0.23	0.23	0.01	8.38
Diesel #11	1.9	13.6	0.23	0.23	0.23	0.01	8.38
Diesel #12	2.9	21.3	0.35	0.35	0.35	0.01	12.79
Diesel #13	2.4	17.5	0.29	0.29	0.29	0.01	10.59

E. Visible Emissions

Visible emissions from Diesels #10, #11, #12, and #13 shall each not exceed 20% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 101, § 4(A)(4)]

Visible emissions from Diesels #1 and #7 shall each not exceed 20% opacity on a six-minute block average basis except for periods of startup, during which time Shaw Brothers shall either meet the normal operating visible emissions standard or the following work practice standards and alternative visible emissions standard.

1. The duration of the startup shall not exceed 30 minutes per event;
2. Visible emissions shall not exceed 50% opacity on a six-minute block average basis; and
3. Shaw Brothers shall keep records of the date, time, and duration of each startup.

Use of the work practice standards and alternative visible emissions standard in lieu of the normal operating standard is limited to no more than once per day.

Note: This does not limit the engine to one startup per day. It only limits the use of the alternative emission standard to once per day.

[06-096 C.M.R. ch. 101, § 4(A)(4)]

(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. 101, § 4(B)(4)]

(20) **Fugitive Emissions Including Stockpiles and Roadways**

Shaw Brothers shall not cause emissions of any fugitive dust during any period of construction, reconstruction, or operation without taking reasonable precautions. Such reasonable precautions shall be included in the facility's continuing program of best management practices for suppression of fugitive particulate matter. See 06-096 C.M.R. ch. 101, § 4(C) for a list of potential reasonable precautions.

Shaw Brothers shall not cause or allow visible emissions within 20 feet of ground level, measured as any level of opacity and not including water vapor, beyond the legal boundary of the property on which such emissions occur. Compliance with this standard shall be determined pursuant to 40 C.F.R. Part 60, Appendix A, Method 22.

[06-096 C.M.R. ch. 101, § 4(C)]

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

- A. Shaw Brothers shall notify the Bureau of Air Quality, by a written notification, prior to relocation of any equipment addressed in 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 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 license number the equipment is covered under, identification of the equipment moved, the address of the equipment's new location, the date the equipment will be moved.

- 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. The notification to the Department shall include the date the municipality was notified.
- (22) Shaw Brothers shall keep a copy of this Order on site, and ensure the operator(s) are familiar with the terms of this Order. [06-096 C.M.R. ch. 115, BPT]

**Shaw Brothers Construction, Inc.
Cumberland County
Gorham, Maine
A-425-71-S-R/A**

22

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

- (23) If the Department determines that any parameter value pertaining to construction and operation of the emissions units, including but not limited to stack size, configuration, flow rate, emission rates, nearby structures, etc., deviates from what was submitted in the application or ambient air quality impact analysis for this air emission license, Shaw Brothers may be required to submit additional information. Upon written request from the Department, Shaw Brothers shall provide information necessary to demonstrate AAQS will not be exceeded, potentially including submission of an ambient air quality impact analysis or an application to amend this air emission license to resolve any deficiencies and ensure compliance with AAQS. Submission of this information is due within 60 days of the Department's written request unless otherwise stated in the Department's letter. [06-096 C.M.R. ch. 115, § 2(O)]

DONE AND DATED IN AUGUSTA, MAINE THIS 23rd DAY OF JULY, 2024.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY:  for
MELANIE LOYZIM, 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: 5/24/24

Date of application acceptance: 5/28/24

Date filed with the Board of Environmental Protection:

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

