



DEPARTMENT ORDER

**Bowdoin Aggregate Sales, Inc.  
Sagadahoc County  
Bowdoin, Maine  
A-527-71-J-R/A**

**Departmental  
Findings of Fact and Order  
Air Emission License  
Renewal and  
After-the-Fact 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

Bowdoin Aggregate Sales, Inc. (Bowdoin Aggregate), formerly Ray Labbe & Sons, Inc., has applied to renew their Air Emission License for the operation of their crushed stone and mineral processing facility located at 19 Thurman Drive, Bowdoin, Maine. Bowdoin Aggregate changed their legal name in April 2019, but not their ownership, which is why a license transfer is not required. Bowdoin Aggregate has also requested an amendment to their license in order to add a crusher unit to the license after-the-fact, since it is already in operation at the facility.

B. Emission Equipment

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

**Rock Crushers**

<b>Designation</b>	<b>Powered</b>	<b>Process Rate (tons/hour)</b>	<b>Date of Manufacture</b>	<b>Control Device</b>
LB-171 Primary Jaw	LB-172 Generator	200	Pre-1983	Spray Nozzles
LB-173 Cone Crusher	LB-172 Generator	150	1977	Spray Nozzles
LB-227 Portable Cone Crusher	LB-228 Generator	150	1974	Spray Nozzles
LB-221 Portable Jaw Komatsu	LB-221 Diesel Drive	200	2005	Spray Nozzles
LB-2650 Portable Jaw Astec*	LB-2650 Diesel Drive	350	2020	Spray Nozzles

\*New to the license

### Engines

Unit ID	Max. Capacity (MMBtu/hr)	Max. Firing Rate (gal/hr)	Fuel Type	Date of Manuf.
LB-172 Generator	4.1	29.9	distillate fuel	1998
LB-225 Generator	0.6	4.1	distillate fuel	1994
LB-228 Generator	2.7	19.5	distillate fuel	2014
LB-221 Diesel Drive	1.0	7.2	distillate fuel	2005
LB-2650 Diesel Drive*	3.7	27.3	distillate fuel	2020

\*New to the license

Bowdoin Aggregate 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.

Bowdoin Aggregate 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, Bowdoin Aggregate 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 issued date of this license.

The modification of a minor source is considered a major or minor modification based on whether or not expected emissions 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 emissions 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 Emissions Levels
PM	0.3	0.2	-0.1	100
PM <sub>10</sub>	0.3	0.2	-0.1	100
PM <sub>2.5</sub>	--	0.2	0.2	100
SO <sub>2</sub>	0.1	--	-0.1	100
NO <sub>x</sub>	9.1	9.1	--	100
CO	2.0	2.0	--	100
VOC	0.8	0.7	-0.1	50*

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

This modification is determined to be a minor modification and has been processed as such.

The application for Bowdoin Aggregate includes both the license renewal and the installation of new equipment. Therefore, the license is considered to be a renewal of currently licensed emission units and an after-the-fact 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 engines, the facility is licensed as follows:

- As a synthetic minor source of air emissions for NO<sub>x</sub>, because Bowdoin Aggregate 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.

BPT for existing emissions equipment means that method which controls or reduces emissions to the lowest possible level considering:

- the existing state of technology;
- the effectiveness of available alternatives for reducing emissions from the source being considered; and
- the economic feasibility for the type of establishment involved.

#### B. Rock Crushers

Bowdoin Aggregate operates the following rock crushers:

- **LB-171 Primary Jaw**, a jaw crusher manufactured before 1983, installed in 2005, and with a rated capacity of 200 tons/hr;
- **LB-173 Cone Crusher**, a stationary cone crusher manufactured in 1977, installed in 2005, and with a rated capacity of 150 tons/hr;
- **LB-227 Portable Cone Crusher**, a portable cone crusher manufactured in 1974, installed in 2018, and with a rated capacity of 150 tons/hr; and
- **LB-221 Portable Jaw Komatsu** and **LB-2650 Portable Jaw Astec**, two portable jaw crushers. LB-221 Portable Jaw Komatsu was manufactured in 2005, installed in 2015, and has a rated capacity of 200 tons/hr. LB-2650 Portable Jaw Astec, being added in this licensing action after-the-fact, was manufactured in 2020, installed in 2022, and has a rated capacity of 350 tons/hr.

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

##### 1. BACT Findings – LB-2650 Portable Jaw Astec

The regulated pollutant from nonmetallic mineral processing plants is particulate matter. To meet the requirements of BACT for control of particulate matter emissions, Bowdoin Aggregate shall maintain water sprays on the nonmetallic mineral processing plant and operate as needed to control visible emissions.

LB-2650 Portable Jaw Astec 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.

Visible emissions from nonmetallic mineral processing plant equipment other than crushers (transfer points on belt conveyors, screening operations, etc.) shall not exceed 20% opacity on a six-minute block average basis.

2. BPT Findings – LB-171 Primary Jaw, LB-173 Cone Crusher, LB-227 Portable Cone Crusher, and LB-221 Portable Jaw Komatsu

The regulated pollutant from nonmetallic mineral processing plants is particulate matter. To meet the requirements of BPT for control of particulate matter emissions, Bowdoin Aggregate shall maintain water sprays on the nonmetallic mineral processing plant and operate as needed to control visible emissions.

LB-171 Primary Jaw, LB-173 Cone Crusher, and LB-221 Portable Jaw Komatsu are exempt from the requirements of *Visible Emissions Regulation*, 06-096 C.M.R. ch. 101 because they are subject to a visible emission standard under 40 C.F.R. Part 60, Subpart OOO. This standard is presented in the following section.

Visible emissions from LB-227 Portable Cone Crusher shall be limited to no greater than 10% opacity on a six-minute block average basis, as required by 06-096 C.M.R. ch. 101.

Visible emissions from nonmetallic mineral processing plant equipment that are associated with LB-227 Portable Cone Crusher other than the crusher (transfer points on belt conveyors, screening operations, etc.) shall not exceed 20% opacity on a six-minute block average basis.

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.

LB-227 Portable Cone Crusher is a portable crusher with a 150 ton per hour capacity. Therefore, this equipment is not subject to this Subpart. [40 C.F.R. § 60.670(c)]

LB-171 Primary Jaw and LB-173 Cone Crusher were each manufactured prior to August 31, 1983. The Department has determined that due to the age of the crushers and the considerable impacts the crusher equipment operate under, it is likely that the crushers went through a reconstruction or modification after August 1983.

LB-171 Primary Jaw, LB-173 Cone Crusher, LB-221 Portable Jaw Komatsu, and LB-2650 Portable Jaw Astec are part of a nonmetallic mineral processing plant with a maximum capacity of greater than 150 ton/hr and were manufactured, reconstructed, or modified 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 and Recordkeeping Requirements

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, Bowdoin Aggregate 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 LB-171 Primary Jaw, LB-173 Cone Crusher, and LB-221 Portable Jaw Komatsu 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 any affected facility other than the 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 LB-2650 Portable Jaw Astec shall not exceed 12% 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 the rock crusher, 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]

c. Monitoring Requirements

Bowdoin Aggregate shall maintain records detailing the maintenance on particulate matter control equipment including spray nozzles. Bowdoin Aggregate 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

As a requirement of 40 C.F.R. Part 60, Subpart OOO, it is necessary that an initial performance test be performed on LB-171 Primary Jaw, LB-173 Cone Crusher, on LB-221 Portable Jaw Komatsu, and LB-2650 Portable Jaw Astec and from each piece of associated equipment 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. This consists of a certified Method 9 observation. Bowdoin Aggregate conducted Method 9 observation testing on LB-171 Primary Jaw and LB-173 Cone Crusher on September 12, 2005 and successfully demonstrated the capability to meet the standards established in Bowdoin Aggregate's air emission license. A copy of the final testing report was submitted to and is on file with the department. The performance tests for LB-221 Portable Jaw Komatsu and associated equipment were completed on September 5, 2015, and all necessary documentation has been provided to the Department. The performance tests LB-2650 Portable Jaw Astec and associated equipment were completed on June 22, 2023, and all necessary documentation has been provided to the Department.

Note: Although Bowdoin Aggregate 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

Bowdoin Aggregates operates the following engines:

- **LB-172 Generator** is a portable engine used to power LB-171 Primary Jaw and LB-173 Cone Crusher. LB-172 Generator has a maximum capacity of 4.1 MMBtu/hr (400 kw), firing distillate fuel. The generator was manufactured in 1998 and installed in 2005.



- **LB-225 Generator** is a portable back-up engine. LB-225 Generator has a maximum capacity of 0.6 MMBtu/hr (50 kw), firing distillate fuel. The generator was manufactured in 1994 and installed in 2018.
- **LB-228 Generator** is a portable engine used to power LB-227 Portable Cone Crusher. LB-228 Generator has a maximum capacity of 2.7 MMBtu/hr (256 kw), firing distillate fuel. The generator was manufactured in 2014 and installed in 2015.
- **LB-221 Diesel Drive** is used to power LB-221 Portable Jaw Komatsu. LB-221 Diesel Drive has a maximum capacity of 1.0 MMBtu/hr, firing distillate fuel. The generator was manufactured in 1977 and installed in 2015.
- **LB-2650 Diesel Drive** is used to power LB-2650 Portable Jaw Astec. LB-2650 Diesel Drive has a maximum capacity of 3.7 MMBtu/hr, firing distillate fuel. The generator was manufactured in 2020 and installed in 2022.

The distillate fuel fired in the engines combined shall be limited to 30,000 gallons/year on a calendar year total basis 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 – LB-2650 Diesel Drive

The BACT emission limits for LB-2650 Diesel Drive were based on the following:

- PM/PM<sub>10</sub>/PM<sub>2.5</sub> – 0.12 lb/MMBtu from 06-096 C.M.R. ch. 103]
- SO<sub>2</sub> – Combustion of distillate fuel with a maximum sulfur content not to exceed 15 ppm (0.0015% sulfur by weight)
- NO<sub>x</sub> – 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 LB-2650 Diesel Drive are the following:

Unit	Pollutant	lb/MMBtu
LB-2650 Diesel Drive	PM	0.12

Unit	PM (lb/hr)	PM <sub>10</sub> (lb/hr)	PM <sub>2.5</sub> (lb/hr)	SO <sub>2</sub> (lb/hr)	NO <sub>x</sub> (lb/hr)	CO (lb/hr)	VOC (lb/hr)
LB-2650 Diesel Drive	0.45	0.45	0.45	0.01	16.52	3.56	1.35

Visible emissions from LB-2650 Diesel Drive shall not exceed 20% opacity on a six-minute block average basis.

2. BPT Findings – LB-172 Generator, LB-228 Generator, LB-225 Generator, and LB-221 Diesel Drive

The BPT emission limits for these distillate fuel-fired engines were based on the following:

- PM/PM<sub>10</sub>/PM<sub>2.5</sub> – 0.12 lb/MMBtu from 06-096 C.M.R. ch. 103 and 06-096 C.M.R. ch. 115, BPT]
- SO<sub>2</sub> – Combustion of distillate fuel with a maximum sulfur content not to exceed 15 ppm (0.0015% sulfur by weight)
- NO<sub>x</sub> – 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, BPT

The BPT emission limits for the generators are the following:

Unit	Pollutant	lb/MMBtu
LB-172 Generator	PM	0.12

Unit	PM (lb/hr)	PM <sub>10</sub> (lb/hr)	PM <sub>2.5</sub> (lb/hr)	SO <sub>2</sub> (lb/hr)	NO <sub>x</sub> (lb/hr)	CO (lb/hr)	VOC (lb/hr)
LB-172 Generator	0.49	0.49	0.49	0.01	18.06	3.89	1.47
LB-228 Generator	0.32	0.32	0.32	0.004	11.78	2.54	0.96
LB-225 Generator	0.07	0.07	0.07	0.001	2.48	0.53	0.20
LB-221 Diesel Drive	0.12	0.12	0.12	0.002	4.35	0.94	0.36

Visible emissions from each distillate fuel-fired engines shall not exceed 20% opacity on a six-minute block average basis.

3. New Source Performance Standards

LB-172 Generator, LB-228 Generator, LB-225 Generator, LB-221 Diesel Drive, and LB-2650 Diesel Drive 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]

4. National Emission Standards for Hazardous Air Pollutants

LB-172 Generator, LB-228 Generator, LB-225 Generator, LB-221 Diesel Drive, and LB-2650 Diesel Drive are not subject to *National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines*, 40 C.F.R. Part 63, Subpart ZZZZ.

The definition in 40 C.F.R. § 1068.30 states that a non-road engine is an internal combustion engine that meets certain criteria, including: “Portable or transportable, meaning designed to be and capable of being carried or moved from one location to another. Indicia of transportability include, but are not limited to, wheels, skids, carrying handles, dolly, trailer, or platform.” 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. § 63.6585]

D. Stock Piles and Roadways

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

E. 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.

F. 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 the following assumptions:

- Firing 30,000 gal/year of distillate fuel in the engines.

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)

	<b>PM</b>	<b>PM<sub>10</sub></b>	<b>PM<sub>2.5</sub></b>	<b>SO<sub>2</sub></b>	<b>NO<sub>x</sub></b>	<b>CO</b>	<b>VOC</b>
Engines	0.2	0.2	0.2	--	9.1	2.0	0.7
<b>Total TPY</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	--	<b>9.1</b>	<b>2.0</b>	<b>0.7</b>

<b>Pollutant</b>	<b>Tons/year</b>
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:

<b>Pollutant</b>	<b>Tons/Year</b>
PM <sub>10</sub>	25
PM <sub>2.5</sub>	15
SO <sub>2</sub>	50
NO <sub>x</sub>	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 renewal and amendment.

This determination is based on information provided by the applicant regarding the expected construction and operation of the proposed 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 Bowdoin Aggregate 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 Renewal and Amendment A-527-71-J-R/A subject to the following conditions.

Severability. The invalidity or unenforceability of any provision of this License Renewal and Amendment or part thereof shall not affect the remainder of the provision or any other provisions. This License Renewal and Amendment shall be construed and enforced in all respects as if such invalid or unenforceable provision or part thereof had been omitted.

### **STANDARD CONDITIONS**

- (1) Employees and authorized representatives of the Department shall be allowed access to the licensee's premises during business hours, or any time during which any emissions units are in operation, and at such other times as the Department deems necessary for the purpose of performing tests, collecting samples, conducting inspections, or examining and copying records relating to emissions (38 M.R.S. § 347-C).
- (2) The licensee shall acquire a new or amended air emission license prior to commencing construction of a modification, unless specifically provided for in 06-096 C.M.R. ch. 115. [06-096 C.M.R. ch. 115]

- (3) Approval to construct shall become invalid if the source has not commenced construction within eighteen (18) months after receipt of such approval or if construction is discontinued for a period of eighteen (18) months or more. The Department may extend this time period upon a satisfactory showing that an extension is justified, but may condition such extension upon a review of either the control technology analysis or the ambient air quality standards analysis, or both. [06-096 C.M.R. ch. 115]
- (4) The licensee shall establish and maintain a continuing program of best management practices for suppression of fugitive particulate matter during any period of construction, reconstruction, or operation which may result in fugitive dust, and shall submit a description of the program to the Department upon request. [06-096 C.M.R. ch. 115]
- (5) The licensee shall pay the annual air emission license fee to the Department, calculated pursuant to Title 38 M.R.S. § 353-A. [06-096 C.M.R. ch. 115]
- (6) The license does not convey any property rights of any sort or any exclusive privilege. [06-096 C.M.R. ch. 115]
- (7) The licensee shall maintain and operate all emission units and air pollution systems required by the air emission license in a manner consistent with good air pollution control practice for minimizing emissions. [06-096 C.M.R. ch. 115]
- (8) The licensee shall maintain sufficient records to accurately document compliance with emission standards and license conditions and shall maintain such records for a minimum of six (6) years. The records shall be submitted to the Department upon written request. [06-096 C.M.R. ch. 115]
- (9) The licensee shall comply with all terms and conditions of the air emission license. The filing of an appeal by the licensee, the notification of planned changes or anticipated noncompliance by the licensee, or the filing of an application by the licensee for a renewal of a license or amendment shall not stay any condition of the license. [06-096 C.M.R. ch. 115]
- (10) The licensee may not use as a defense in an enforcement action that the disruption, cessation, or reduction of licensed operations would have been necessary in order to maintain compliance with the conditions of the air emission license. [06-096 C.M.R. ch. 115]
- (11) In accordance with the Department's air emission compliance test protocol and 40 C.F.R. Part 60 or other method approved or required by the Department, the licensee shall:

- A. Perform stack testing to demonstrate compliance with the applicable emission standards under circumstances representative of the facility's normal process and operating conditions:
    1. Within sixty (60) calendar days of receipt of a notification to test from the Department or EPA, if visible emissions, equipment operating parameters, staff inspection, air monitoring, or other cause indicate to the Department that equipment may be operating out of compliance with emission standards or license conditions; or
    2. Pursuant to any other requirement of this license to perform stack testing.
  - B. Install or make provisions to install test ports that meet the criteria of 40 C.F.R. Part 60, Appendix A, and test platforms, if necessary, and other accommodations necessary to allow emission testing; and
  - C. Submit a written report to the Department within thirty (30) days from date of test completion.  
[06-096 C.M.R. ch. 115]
- (12) If the results of a stack test performed under circumstances representative of the facility's normal process and operating conditions indicate emissions in excess of the applicable standards, then:
- A. Within thirty (30) days following receipt of 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) **Rock Crushers**

- A. Bowdoin Aggregate shall install, maintain, and operate as necessary spray nozzles for control of particulate matter on the nonmetallic mineral processing plant. [06-096 C.M.R. ch. 115, BACT and BPT]
- B. Bowdoin Aggregate shall maintain records detailing and quantifying the hours of operation on a daily basis for each of the crushers. The operation records shall be kept on-site at the rock crushing location. [06-096 C.M.R. ch. 115, BACT and BPT]
- C. Visible emissions from LB-227 Portable Cone Crusher shall be limited to no greater than 10% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 101, § (3)(B)(2)]



D. Visible emissions from the nonmetallic mineral processing plant equipment that are associated with LB-227 Portable Cone Crusher other than the crusher (transfer points on belt conveyors, screening operations, etc.) shall not exceed 20% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 101 § (3)(B)(4)]

E. NSPS Subpart OOO Requirements

Bowdoin Aggregate shall comply with all requirements of 40 C.F.R. Part 60, Subpart OOO applicable to LB-171 Primary Jaw, LB-173 Cone Crusher, LB-221 Portable Jaw Komatsu, and LB-2650 Portable Jaw Astec 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. Visible emissions from LB-171 Primary Jaw, LB-173 Cone Crusher, and LB-221 Portable Jaw Komatsu shall not exceed 15% opacity on a six-minute block average basis. [40 C.F.R. Part 60, Subpart OOO, Table 3]
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 LB-2650 Portable Jaw Astec shall 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 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]
5. Bowdoin Aggregate shall maintain records detailing the maintenance on particulate matter control equipment including spray nozzles. Bowdoin Aggregate 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)]

6. For the rock crushers and ancillary equipment subject to 40 C.F.R. Part 60, Subparts A and OOO, Bowdoin Aggregate 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)]

**(18) Engines**

**A. Fuel Use**

1. The engines 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 the fuel in the tank. [06-096 C.M.R. ch. 115, BACT and BPT]
2. Total fuel use for LB-172 Generator, LB-228 Generator, LB-225 Generator, LB-221 Diesel Drive, and LB-2650 Diesel Drive 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, BACT and BPT]

**B. Emissions shall not exceed the following:**

<b>Unit</b>	<b>Pollutant</b>	<b>lb/MMBtu</b>	<b>Origin and Authority</b>
LB-2650 Diesel Drive	PM	0.12	06-096 C.M.R. ch. 103, § (2)(B)(1)(a)
LB-172 Generator	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]:**

<b>Unit</b>	<b>PM (lb/hr)</b>	<b>PM<sub>10</sub> (lb/hr)</b>	<b>PM<sub>2.5</sub> (lb/hr)</b>	<b>SO<sub>2</sub> (lb/hr)</b>	<b>NO<sub>x</sub> (lb/hr)</b>	<b>CO (lb/hr)</b>	<b>VOC (lb/hr)</b>
LB-2650 Diesel Drive	0.45	0.45	0.45	0.01	16.52	3.56	1.35
LB-172 Generator	0.49	0.49	0.49	0.01	18.06	3.89	1.47
LB-228 Generator	0.32	0.32	0.32	0.004	11.78	2.54	0.96
LB-225 Generator	0.07	0.07	0.07	0.001	2.48	0.53	0.20
LB-221 Diesel Drive	0.12	0.12	0.12	0.002	4.35	0.94	0.36

**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]

**(19) Stockpiles and Roadways**

Visible emissions from a 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. 101, 3(C)]

**(20) 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, § 3(B)(4)]

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

A. Bowdoin Aggregate shall notify the Bureau of Air Quality, by a written notification, prior to relocation of any equipment carried on this license. It is preferred for notice of relocation to be submitted through the Department's on-line e-notice at: [www.maine.gov/dep/air/compliance/forms/relocation](http://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) Bowdoin Aggregate 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]

**Bowdoin Aggregate Sales, Inc.**  
**Sagadahoc County**  
**Bowdoin, Maine**  
**A-527-71-J-R/A**

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

- (23) If the Department determines that any parameter value pertaining to construction and operation of the proposed 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, Bowdoin Aggregate may be required to submit additional information. Upon written request from the Department, Bowdoin Aggregate 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 17<sup>th</sup> DAY OF JULY, 2023.

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: August 8, 2022

Date of application acceptance: August 16, 2022

Date filed with the Board of Environmental Protection:

This Order prepared by Kendra Nash, Bureau of Air Quality.

