



DEPARTMENT ORDER

Mattingly Products Company, Inc.
Somerset County
North Anson, Maine
A-123-71-O-R/A

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

FINDINGS OF FACT

After review of the air emission license renewal 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

Mattingly Products Company, Inc. (MPC) has applied to renew their Air Emission License for the operation of their hot mix asphalt plant, concrete batch plant and crushed stone and gravel facility located at 25 Solon Road, North Anson, Maine. At times, some of the equipment may be temporarily located at 240 Skowhegan Road, Fairfield, Maine. MPC has also requested an amendment to their license in order to replace a previously licensed generator and to add additional rock crushers.

The main office is located at 25 Solon Road, North Anson, Maine.

B. Emission Equipment

The following equipment is addressed in this Air Emission License:

Asphalt Plant

<u>Equipment</u>	<u>Process Rate</u> (tons/hour)	<u>Design Capacity</u> (MMBtu/hr)	<u>Fuel Type,</u> <u>% sulfur</u>	<u>Control</u> <u>Device(s)</u>	<u>Stack</u> <u>ID</u>	<u>Date of</u> <u>Manuf.</u>
Rotary Kiln	200	55	Distillate fuel, 0.0015% Spec Waste Oil, 0.7%	Baghouse	1	1976

Concrete Plant

<u>Equipment</u>	<u>Production Rate (cubic yards/hour)</u>	<u>Control Device</u>
Concrete Batch Plant #1	100	Baghouse
Concrete Batch Plant #2	100	Baghouse

Rock Crushers

<u>Designation</u>	<u>Powered</u>	<u>Process Rate (tons/hour)</u>	<u>Date of Manufacture</u>	<u>Control Device</u>
Primary Jaw	Crusher Generator	300	2008	Spray Nozzles
Secondary Cone	Crusher Generator	200	1992	Spray Nozzles
Tertiary Cone	Crusher Generator	200	2005	Spray Nozzles
Vertical Shaft Impact*	Crusher Generator	200	2017	Spray Nozzles
Horizontal Shaft Impact*	Crusher Generator	100	2000	Spray Nozzles
Sandvik Crusher*	Sandvik Generator	400	2015	Spray Nozzles

*New to the license

Engines

<u>Unit ID</u>	<u>Max. Capacity (MMBtu/hr)</u>	<u>Max. Firing Rate (gal/hr)</u>	<u>Fuel Type, % sulfur</u>	<u>Date of Manuf.</u>
Hot Mix Plant Generator*	4.88	35	Distillate fuel, 0.0015%	2013
Crusher Generator	4.39	32	Distillate fuel, 0.0015%	2007
Backup Generator	1.46	10.6	Distillate fuel, 0.0015%	2000
Sandvik Generator*	4.11	30	Distillate fuel, 0.0015%	2015

*New to the license

Additionally, MPC operates one boiler with a heat input capacity of 0.5 MMBtu/hr. Because the boiler's rated capacity is below 1.0 MMBtu/hr, it is considered an insignificant emission unit and is included in this license only for inventory purposes.

C. Definitions

Distillate Fuel. For the purposes of this license, *distillate fuel* means the following:

- Fuel oil that complies with the specifications for fuel oil numbers 1 or 2, as defined by the American Society for Testing and Materials (ASTM) in ASTM D396;
- Diesel fuel oil numbers 1 or 2, as defined in ASTM D975;
- Kerosene, as defined in ASTM D3699;
- Biodiesel, as defined in ASTM D6751; or
- Biodiesel blends, as defined in ASTM D7467.

Nonmetallic mineral processing plant. For the purposes of this license, *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. For the purposes of this license, *portable engine* means an internal combustion engine which is portable or transportable, meaning designed to be and capable of being carried or moved from one location to another. Indicia of transportability include, but are not limited to, wheels, skids, carrying handles, dolly, trailer, or platform. This definition does NOT include engines which remain or will remain at a location (excluding storage locations) for more than 12 consecutive months or a shorter period of time for an engine located at a seasonal source. A location is any single site at a building, structure, facility, or installation. Any engine that replaces an engine at a location and that is intended to perform the same or similar function as the engine replaced will be included in calculating the consecutive time period.

D. Application Classification

All rules, regulations, or statutes referenced in this air emission license refer to the amended version in effect as of the issued date of this license.

The 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:

<u>Pollutant</u>	<u>Current License (TPY)</u>	<u>Future License (TPY)</u>	<u>Net Change (TPY)</u>	<u>Significant Emissions Levels</u>
PM	1.3	1.4	0.1	100
PM ₁₀	1.3	1.4	0.1	100
SO ₂	4.2	2.7	-1.5	100

<u>Pollutant</u>	<u>Current License (TPY)</u>	<u>Future License (TPY)</u>	<u>Net Change (TPY)</u>	<u>Significant Emissions Levels</u>
NO _x	12.7	14.2	1.5	100
CO	14.2	14.3	0.1	100
VOC	1.0	1.2	0.2	50
CO ₂ e	<100,000	<100,000	<100,000	100,000

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

In addition, the license is considered to be a renewal of currently licensed emission units 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 Hot Mix Plant Generator, Crusher Generator, Backup Generator, and Sandvik Generator, and the annual throughput limit on the asphalt plant, the facility is licensed as follows:

- As a synthetic minor source of air emissions, because the licensed emissions are below the major source thresholds for criteria pollutants; and
- As an area source of hazardous air pollutants (HAP), because the licensed emissions are below the major source thresholds for HAP.

II. **BEST PRACTICAL TREATMENT**

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. Asphalt Plant

MPC operates an asphalt batch plant (Rotary Kiln) with a maximum hourly throughput of 200 ton/hr of asphalt and a 55 MMBtu/hr burner. In the past, it has been assumed that there is a linear relationship between the fuel required for an asphalt plant burner and the plant output. Meaning, it has been assumed that to operate at 100% throughput requires the burner to fire at 100%, to operate at 75% throughput requires the burner to fire at 75%, etc. This assumption allows for an asphalt plant to have its annual emissions limited by placing a fuel limit on the burner.

However, in some cases it has been determined that the asphalt plant is operated significantly more efficiently than originally anticipated. This allows the burner to operate at a lower firing rate than would be expected for the asphalt output. Since emission factors for asphalt plants are based on tons of asphalt produced, without the previously mentioned linear relationship between plant output and burner firing rate, a fuel limit on the asphalt plant is not sufficient to limit the equipment's annual emissions.

Therefore, to ensure annual emissions are limited to less than major source thresholds, asphalt throughput is limited instead of fuel consumption. Accordingly, the annual throughput of the asphalt batch plant shall not exceed 60,000 tons of asphalt per year on 12-month rolling total basis.

1. BPT Findings

The BPT emission limits for the asphalt plant were based on the following:

- PM, PM₁₀ – 0.03 gr/dscf and the use of a baghouse
- SO₂ – 0.088 lb/ton based on AP-42 Table 11.1-5 dated 3/04
- NO_x – 0.12 lb/ton based on AP-42 Table 11.1-5 dated 3/04
- CO – 0.40 lb/ton based on AP-42 Table 11.1-5 dated 3/04
- VOC – 0.0082 lb/ton based on AP-42 Table 11.1-6 dated 3/04
- Visible Emissions – 06-096 C.M.R. ch. 115, BPT

The BPT emission limits for the asphalt plant are the following:

<u>Unit</u>	<u>PM</u> <u>(lb/hr)</u>	<u>PM₁₀</u> <u>(lb/hr)</u>	<u>SO₂</u> <u>(lb/hr)</u>	<u>NO_x</u> <u>(lb/hr)</u>	<u>CO</u> <u>(lb/hr)</u>	<u>VOC</u> <u>(lb/hr)</u>
Rotary Kiln	6.88	6.88	17.60	24.00	80.00	1.64

Visible emissions from the asphalt plant baghouse shall not exceed 20% opacity on a six-minute block average basis, except for no more than two six-minute block averages in a continuous three-hour period, during which time visible emissions shall not exceed 50% opacity. This is consistent with the PM limit contained in *Standards*

of Performance for Hot Mix Asphalt Facilities, 40 C.F.R. Part 60, Subpart I of 20% opacity.

General process emissions from the asphalt plant shall be controlled so as to prevent visible emissions in excess of 20% opacity on a six-minute block average basis.

The asphalt batch plant is licensed to fire distillate fuel with a maximum sulfur content of 0.5% by weight, and specification waste oil with a maximum sulfur content of 0.7% by weight. Per 38 M.R.S. § 603-A(2)(A)(3), as of July 1, 2018, no person shall import, distribute, or offer for sale any distillate fuel with a sulfur content greater than 0.0015% by weight (15 ppm). Therefore, the distillate fuel purchased or otherwise obtained for use in the asphalt batch plant shall not exceed 0.0015% by weight (15 ppm).

2. New Source Performance Standards

The batch mix asphalt plant was manufactured in 1976 and is therefore subject to the federal Environmental Protection Agency's (EPA) New Source Performance Standards (NSPS) *Standards of Performance for Hot Mix Asphalt Facilities*, 40 Code of Federal Regulation (C.F.R.) Part 60, Subpart I for facilities constructed or modified after June 11, 1973.

3. Control Equipment

Emissions from the asphalt plant shall be controlled by a baghouse.

4. Periodic Monitoring

The performance of the baghouse shall be monitored by either one of the following at all times the batch asphalt plant is operating:

- a. Continuous PM detector: When the detector signals excessive PM concentrations in the exhaust stream, MPC shall take corrective action within 24 hours, or immediately if visible emissions exceed 20% opacity.
- b. Personnel available on-site with a current EPA 40 C.F.R. Part 60, Appendix A, Method 9 visible emissions certification: When visible emissions exceed 20% opacity, the hot mix asphalt plant is operating with insufficient control, and corrective action shall be taken immediately.

MPC shall keep records of baghouse failures, baghouse maintenance, and baghouse inspections.

MPC shall keep records of fuel use and tons of asphalt produced for the asphalt batch plant which shall be maintained for at least six years and made available to the Department upon request. Records shall also be maintained recording the quantity and analyzed test results of all specification waste oil fired in the unit.

Per 40 C.F.R. Part 60, Subpart I, MPC shall conduct a performance test for PM within 60 days after achieving the maximum production rate at which the facility will be operated, but not later than 180 days after initial startup of such facility. Per 40 C.F.R. Part 60, Subpart I, § 60.93(b)(1), MPC shall use 40 C.F.R. Part 60, Appendix A, Method 5 to determine the PM concentration. The sampling time and sample volume for each run shall be at least 60 minutes and 0.90 dscm (31.8 dscf).

C. Concrete Batch Plant

The Concrete Batch Plants are both rated at 100 cubic yards/hour. Concrete Batch Plant #2 is equipped with a cement silo.

To meet the requirements of BPT for control of particulate matter (PM) emissions from the cement silo, particulate emissions shall be vented through a baghouse maintained for 99% removal efficiency. Visible emissions from the cement silo baghouse are limited to no greater than 10% opacity on a six-minute block average basis. The facility shall take corrective action if visible emissions from the baghouses exceed 5% opacity on a six-minute block average basis.

All components of the Concrete Batch Plant shall be maintained so as to prevent PM leaks. Visible emissions from concrete batching operations shall not exceed 20% opacity on a six-minute block average basis.

D. Nonmetallic Mineral Processing Plants

The Primary Jaw, Secondary Cone, Tertiary Cone, Vertical Shaft Impact, Horizontal Shaft Impact, and Sandvik Rock Crushers are portable units which were manufactured in 2008, 1992, 2005, 2017, 2000, and 2015 with rated capacities of 300 tons/hr, 200 tons/hr, 200 tons/hr, 200 tons/hr, 100 tons/hr, and 400 tons/hr, respectively. The nonmetallic mineral processing plant also consists of other equipment associated with the Primary Jaw, Secondary Cone, Tertiary Cone, Vertical Shaft Impact, Horizontal Shaft Impact, and Sandvik Rock Crushers, such as screens and belt conveyors.

1. BACT/BPT Findings

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

2. New Source Performance Standards

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

The Primary Jaw, Secondary Cone, Tertiary Cone, Vertical Shaft Impact, Horizontal Shaft Impact, and Sandvik Rock Crushers are part of a nonmetallic mineral processing plant with a maximum capacity of greater than 150 ton/hr and were manufactured after August 31, 1983. These crushers are therefore subject to 40 C.F.R. Part 60, Subpart OOO. [40 C.F.R. §§ 60.670(c) and (e)]

Requirements of 40 C.F.R. Part 60, Subpart OOO

a. Standards

Subpart OOO, Table 3 contains applicable visible emission requirements for the Primary Jaw, Secondary Cone, Tertiary Cone, Vertical Shaft Impact, Horizontal Shaft Impact, and Sandvik Rock Crushers. This equipment is also subject to standards contained in the State rule *Visible Emissions Regulation*, 06-096 C.M.R. ch. 101. The State requirements are determined to be more stringent. Therefore, the visible emission limit for this equipment has been streamlined to the State regulation. Visible emissions from the Primary Jaw, Secondary Cone, Tertiary Cone, Vertical Shaft Impact, Horizontal Shaft Impact, and Sandvik Rock Crushers shall each be limited to no greater than 10% opacity on a six-minute block average basis.

Visible emissions from any nonmetallic mineral processing plant equipment, 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 nonmetallic mineral processing plant equipment, 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]

b. Monitoring Requirements

MPC shall maintain records detailing the maintenance on particulate matter control equipment including spray nozzles. MPC 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)]

c. Testing Requirements

Subpart OOO, § 60.675 requires that MPC conduct an initial performance test for visible emissions from the Primary Jaw, Secondary Cone, Tertiary Cone, Vertical Shaft Impact, Horizontal Shaft Impact, and Sandvik Rock Crushers, 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.

Testing shall be completed in accordance with the following:

- (1) An initial performance test must 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)]
- (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) MPC shall submit a test notice to the Department and the EPA at least seven days prior to conducting a performance test. [40 C.F.R. § 60.675(g)]

d. Reporting and Recordkeeping Requirements

For the rock crushers and ancillary equipment subject to 40 C.F.R. Part 60, Subparts A and OOO, MPC shall comply with the notification and recordkeeping requirements of 40 C.F.R. §§ 60.676 and 60.7, except for § 60.7(a)(2) per 40 C.F.R. Subpart OOO, § 60.676(h). [40 C.F.R. §§ 60.676(b), (f), and (i)]

E. Generators

The Hot Mix Plant Generator, Crusher Generator, Backup Generator, and Sandvik Generator are all portable engines with maximum capacities of 4.88 MMBtu/hr (500 kW), 4.39 MMBtu/hr (450 kW), 1.46 MMBtu/hr (150 kW), and 4.11 MMBtu/hr, respectively. Each generator fires distillate fuel. The generators were manufactured in 2013, 2007, 2000, and 2015, respectively. The Hot Mix Plant Generator is a new unit that replaced the 400 kW generator that was previously licensed. The combined fuel fired in all four generators shall be limited to 35,000 gallons/year on a 12-month rolling total basis of distillate fuel with a maximum sulfur content not to exceed 15 ppm (0.0015% sulfur by weight).

1. BACT/BPT Findings

The BACT/BPT emission limits for the generators were based on the following:

Hot Mix Plant and Crusher Generators

- PM, PM₁₀ - 0.12 lb/MMBtu from 06-096 C.M.R. ch. 103
- SO₂ - combustion of distillate fuel with a maximum sulfur content not to exceed 15 ppm (0.0015% sulfur by weight)
- NO_x - 3.2 lb/MMBtu from AP-42 table 3.4-1 dated 10/96
- CO - 0.85 lb/MMBtu from AP-42 table 3.4-1 dated 10/96
- VOC - 0.09 lb/MMBtu from AP-42 table 3.4-1 dated 10/96
- Visible Emissions - 06-096 C.M.R. ch. 115, BPT

Backup Generator and Sandvik Generator

- PM, PM₁₀ - 0.12 lb/MMBtu from 06-096 C.M.R. ch. 103
- SO₂ - combustion of distillate fuel with a maximum sulfur content not to exceed 15 ppm (0.0015% sulfur by weight)
- NO_x - 4.41 lb/MMBtu from AP-42 table 3.3-1 dated 10/96
- CO - 0.95 lb/MMBtu from AP-42 table 3.3-1 dated 10/96
- VOC - 0.35 lb/MMBtu from AP-42 table 3.3-1 dated 10/96
- Visible Emissions - 06-096 C.M.R. ch. 115, BPT

The BACT/BPT emission limits for the generators are the following:

<u>Unit</u>	<u>Pollutant</u>	<u>lb/MMBtu</u>
Hot Mix Plant Generator	PM	0.12
Crusher Generator	PM	0.12
Sandvik Generator	PM	0.12

<u>Unit</u>	<u>PM</u> <u>(lb/hr)</u>	<u>PM₁₀</u> <u>(lb/hr)</u>	<u>SO₂</u> <u>(lb/hr)</u>	<u>NO_x</u> <u>(lb/hr)</u>	<u>CO</u> <u>(lb/hr)</u>	<u>VOC</u> <u>(lb/hr)</u>
Hot Mix Plant Generator (4.88 MMBtu/hr) Distillate fuel	0.59	0.59	0.01	15.62	4.15	0.44
Crusher Generator (4.39 MMBtu/hr) Distillate fuel	0.53	0.53	--	14.05	3.73	0.40
Backup Generator (1.46 MMBtu/hr) Distillate fuel	0.18	0.18	--	6.44	1.39	0.51
Sandvik Generator (4.11 MMBtu/hr) Distillate fuel	0.49	0.49	--	18.13	3.90	1.44

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

2. New Source Performance Standards

All four generators are considered non-road engines, as opposed to stationary engines, since they are portable and will be moved to various sites. Therefore, the generators are not subject to *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines*, 40 C.F.R. Part 60, Subpart IIII. [40 C.F.R. § 60.4200]

3. National Emission Standards for Hazardous Air Pollutants

All four generators are considered non-road engines, as opposed to stationary engines, since they are portable and will be moved to various sites. Therefore, the Hot Mix Plant Generator, Crusher Generator, Backup Generator, and Sandvik Generator 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.” 40 C.F.R. § 1068.30 further states that an engine is not a non-road engine if it remains or will remain at a location for more than 12 consecutive months or a shorter period of time for an engine located at a seasonal source. An engine located at a seasonal source (a stationary source that remains in a single location on a permanent basis (i.e., at least two years) and that operates at that single location approximately three months (or

more) each year) is an engine that remains at a seasonal source during the full annual operating period of the seasonal source. [40 C.F.R. § 63.6585]

F. Stock Piles and Roadways

Visible emissions from a fugitive emission source (including stockpiles and roadways) shall not exceed 20% opacity, except for no more than five minutes in any one-hour period during which time visible emissions shall not exceed 30% opacity. Compliance shall be determined by an aggregate of the individual fifteen-second opacity observations which exceed 20% in any one hour.

G. 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.

H. Annual Emissions

1. Total Annual Emissions

MPC shall be restricted to the following annual emissions, based on a 12-month rolling total. The tons per year limits were calculated based on 60,000 ton/yr asphalt production and a combined 35,000 gal/yr of distillate fuel used in the generators:

Total Licensed Annual Emissions for the Facility
Tons/year
(used to calculate the annual license fee)

	PM	PM₁₀	SO₂	NO_x	CO	VOC
Asphalt Plant	1.1	1.1	2.7	3.6	12.0	0.3
Generators	0.3	0.3	--	10.6	2.3	0.9
Total TPY	1.4	1.4	2.7	14.2	14.3	1.2

2. Greenhouse Gases

Greenhouse gases are considered regulated pollutants as of January 2, 2011, through 'Tailoring' revisions made to EPA's *Approval and Promulgation of Implementation Plans*, 40 C.F.R. Part 52, Subpart A, § 52.21, *Prevention of Significant Deterioration of Air Quality* rule. Greenhouse gases, as defined in 06-096 C.M.R. ch. 100, are the aggregate group of the following gases: carbon dioxide, nitrous oxide, methane, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. For licensing purposes, greenhouse gases (GHG) are calculated and reported as carbon dioxide equivalents (CO₂e).

The quantity of CO₂e emissions from this facility is less than 100,000 tons per year, based on the following:

- the facility's fuel use limits;
- worst case emission factors from the following sources: U.S. EPA's AP-42, the Intergovernmental Panel on Climate Change (IPCC), and *Mandatory Greenhouse Gas Reporting*, 40 C.F.R. Part 98; and
- global warming potentials contained in 40 C.F.R. Part 98.

No additional licensing actions to address GHG emissions are required at this time.

III. AMBIENT AIR QUALITY ANALYSIS

The level of ambient air quality impact modeling required for a minor source 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
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.

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-123-71-O-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 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 such test results, 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 Part 70 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]

SPECIFIC CONDITIONS

(16) Asphalt Plant

A. Fuel Use

1. The asphalt plant is licensed to fire distillate fuel and specification waste oil. [06-096 C.M.R. ch. 115, BPT]
2. The facility shall not purchase or otherwise obtain distillate fuel with a maximum sulfur content that exceeds 0.0015% by weight (15 ppm). [06-096 C.M.R. ch. 115, BPT]
3. Specification waste oil fired at the facility shall not exceed a maximum sulfur content of 0.7% by weight. [06-096 C.M.R. ch. 115, BPT]

- B. The annual throughput of the asphalt plant shall not exceed 60,000 tons of asphalt per year on a 12-month rolling total basis. Records of asphalt productions shall be kept on a monthly and 12-month rolling total basis. [06-096 C.M.R. ch. 115, BPT]
- C. Emissions from the asphalt plant shall vent to a baghouse, and all components of the asphalt plant shall be maintained so as to prevent PM leaks. [06-096 C.M.R. ch. 115, BPT]
- D. The performance of the baghouse shall be monitored by either one of the following at all times the hot mix asphalt plant is operating [06-096 C.M.R. ch. 115, BPT]:
1. Continuous PM detector: When the detector signals excessive PM concentrations in the exhaust stream, MPC shall take corrective action within 24 hours, or immediately if opacity exceeds 20%.
 2. Personnel available on-site with a current EPA Method 9 visible emissions certification: When visible emissions exceed 20% opacity, the asphalt plant is operating with insufficient control, and corrective action shall be taken immediately.
- E. To document maintenance of the baghouse, the licensee shall keep maintenance records recording the date and location of all bag failures as well as all routine maintenance and inspections. The maintenance and inspection records shall be kept on-site at the asphalt plant location.
[06-096 C.M.R. ch. 115, BPT]
- F. Emissions from the asphalt plant baghouse shall not exceed the following [06-096 C.M.R. ch. 115, BPT]:

Pollutant	grs/dscf	lb/hr
PM	0.03	6.88
PM ₁₀	-	6.88
SO ₂	-	17.60
NO _x	-	24.00
CO	-	80.00
VOC	-	1.64

- G. Visible emissions from the baghouse is limited to no greater than 20% opacity on a six-minute block average basis, except for no more than two six-minute block averages in a continuous three-hour period, during which time visible emissions shall not exceed 50% opacity. [06-096 C.M.R. ch. 115, BPT]

H. General process emissions from the hot mix asphalt plant shall be controlled so as to prevent visible emissions in excess of 20% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 115, BPT]

(17) Concrete Batch Plant

A. Particulate emissions from the cement silo shall be vented through a baghouse and all components of the concrete batch plant shall be maintained so as to prevent PM leaks. [06-096 C.M.R. ch. 115, BPT]

B. To document maintenance of the cement silo baghouse, the licensee shall keep a maintenance record recording the date and location of all bag failures as well as all routine maintenance and inspections. The maintenance and inspection record shall be kept on-site at the concrete batch plant location. [06-096 C.M.R. ch. 115, BPT]

C. Visible emissions from the cement silo baghouse is limited to no greater than 10% opacity on a six-minute block average basis. MPC shall take corrective action if visible emissions from the baghouse(s) exceed 5% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 115, BPT]

D. PM emissions from the concrete batching operation shall be controlled so as to prevent visible emissions in excess of 20% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 115, BPT]

(18) Nonmetallic Mineral Processing Plants

A. MPC shall install and maintain spray nozzles for control of particulate matter on the nonmetallic mineral processing plant. [06-096 C.M.R. ch. 115, BACT/BPT]

B. MPC shall maintain records detailing and quantifying the hours of operation on a daily basis for the Primary Jaw, Secondary Cone, Tertiary Cone, Vertical Shaft Impact, Horizontal Shaft Impact, and Sandvik Rock Crushers. The operation records shall be kept on-site at the rock crushing location. [06-096 C.M.R. ch. 115, BACT/BPT]

C. Visible emissions from the Primary Jaw, Secondary Cone, Tertiary Cone, Vertical Shaft Impact, Horizontal Shaft Impact, and Sandvik Rock Crushers shall each be limited to no greater than 10% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 115, BACT/BPT]

D. NSPS Subpart OOO Requirements

MPC shall comply with all requirements of 40 C.F.R. Part 60, Subpart OOO applicable to the Primary Jaw, Secondary Cone, Tertiary Cone, Vertical Shaft Impact,

Horizontal Shaft Impact, and Sandvik Rock Crushers, and each associated grinding mill, screening operation, bucket elevator, belt conveyor, bagging operation, storage bin, and enclosed truck or railcar loading station.

1. Visible emissions from any nonmetallic mineral processing plant equipment, 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]
2. Visible emissions from any nonmetallic mineral processing plant equipment, 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]
3. MPC shall maintain records detailing the maintenance on particulate matter control equipment (including spray nozzles). MPC 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. [06-096 C.M.R. ch. 115, BACT/BPT and 40 C.F.R. § 60.674(b)]
4. MPC shall either have an initial performance test preformed on the Primary Jaw, Secondary Cone, Tertiary Cone, Vertical Shaft Impact, Horizontal Shaft Impact, and Sandvik Rock Crushers, and ancillary equipment, as applicable, per the applicable sections of 40 C.F.R. § 60.675 or provide documentation to the Department that the initial performance test was previously performed. [06-096 C.M.R. ch. 115, BACT/BPT and 40 C.F.R. § 60.675(c)]
5. An initial performance test must 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 06-096 C.M.R. ch. 115, BACT/BPT]
6. MPC shall submit a test notice to the Department and EPA at least seven days prior to conducting a performance test. [06-096 C.M.R. ch. 115, BACT/BPT and 40 C.F.R. § 60.675(g)]

7. For the rock crushers and ancillary equipment subject to 40 C.F.R. Part 60 Subparts A and OOO, MPC shall comply with the notification and recordkeeping requirements of 40 C.F.R. §§ 60.676 and 60.7, except for § 60.7(a)(2) per § 60.676(h). [40 C.F.R. §§ 60.676(b), (f), and (i)]

(19) **Generators**

A. Fuel Use

1. The Hot Mix Plant Generator, Crusher Generator, Backup Generator, and Sandvik Generator are licensed to fire 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/BPT]
2. Total combined fuel use for the generators shall not exceed 35,000 gal/yr of distillate fuel. 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 12-month rolling total basis. [06-096 C.M.R. ch. 115, BACT/BPT]

B. Emissions shall not exceed the following:

Unit	Pollutant	lb/MMBtu	Origin and Authority
Hot Mix Plant Generator	PM	0.12	06-096 C.M.R. ch. 103 § (2)(B)(1)(a)
Crusher Generator	PM	0.12	06-096 C.M.R. ch. 103 § (2)(B)(1)(a)
Sandvik 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/BPT]:

Unit	PM (lb/hr)	PM ₁₀ (lb/hr)	SO ₂ (lb/hr)	NO _x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Hot Mix Plant Generator (4.88 MMBtu/hr) Distillate fuel	0.59	0.59	0.01	15.62	4.15	0.44
Crusher Generator (4.39 MMBtu/hr) Distillate fuel	0.53	0.53	--	14.05	3.73	0.40
Backup Generator (1.46 MMBtu/hr) Distillate fuel	0.18	0.18	--	6.44	1.39	0.51

Unit	PM (lb/hr)	PM ₁₀ (lb/hr)	SO ₂ (lb/hr)	NO _x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Sandvik Generator (4.11 MMBtu/hr) Distillate fuel	0.49	0.49	--	18.13	3.90	1.44

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

(20) **Stockpiles and Roadways**

Visible emissions from a fugitive emission source (including stockpiles and roadways) shall not exceed 20% opacity, except for no more than five minutes in any one-hour period during which time visible emissions shall not exceed 30% opacity. Compliance shall be determined by an aggregate of the individual fifteen-second opacity observations which exceed 20% in any one hour.

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

(21) **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]

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

A. MPC 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

Written notice may also be sent by fax (207-287-7641) or 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 address of the equipment's new location, an identification of the equipment, and the license number pertaining to the relocated equipment.

- 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.
- (23) MPC shall keep a copy of this Order on site, and have the operator(s) be familiar with the terms of this Order. [06-096 C.M.R. ch. 115, BPT]
- (24) MPC 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].

DONE AND DATED IN AUGUSTA, MAINE THIS 7 DAY OF August, 2018.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY:

Paul Allen Robert Core for
PAUL MERCER, 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: June 12, 2017

Date of application acceptance: June 16, 2017

Date filed with the Board of Environmental Protection:

This Order prepared by Benjamin Goundie, Bureau of Air Quality.

