



DEPARTMENT ORDER

Crooker Construction, LLC
Sagadahoc County
Topsham, Maine
A-187-71-M-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

Crooker Construction, LLC (Crooker) has applied to renew their Air Emission License for the operation of their asphalt batch plant and crushed stone facility located at 103 Lewiston Road, Topsham, Maine. This air emission license renewal includes an amendment to include the operation of two additional portable rock crushers, designated Metso Crusher #1 and Metso Crusher #2, and to address the operation of existing engines in crushers, screens, and conveyors associated with Nonmetallic Mineral Processing Plants.

B. Emission Equipment

The following equipment is addressed in this Air Emission License:

Asphalt Plant

| <u>Equipment</u> | <u>Process Rate</u> <u>(tons/hour)</u> | <u>Design Capacity</u> <u>(MMBtu/hr)</u> | <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> |
|-------------------------|---|---|--|--|---|---|
| Asphalt Plant | 180 | 103 | Distillate fuel, 0.5% #5 Oil, 0.7% Natural Gas, neg. | Baghouse | 1 | 1972 |

Rock Crushers

| <u>Designation</u> | <u>Powered</u> | <u>Process Rate (tons/hour)</u> | <u>Date of Manufacture</u> | <u>Control Device</u> |
|---------------------|---------------------------|---------------------------------|----------------------------|-----------------------|
| Primary Crusher | Electrical | 360 | 2005 | Spray Nozzles |
| Secondary Crusher | Electrical | 340 | 1998 | Spray Nozzles |
| Tertiary Crusher | Electrical | 230 | 1998 | Spray Nozzles |
| Pegson Crusher | Pegson Engine | 245 | 2005 | Spray Nozzles |
| Portable Crusher #1 | Portable Diesel Generator | 225 | 1988 | Spray Nozzles |
| Metso Crusher #1 | Metso Engine #1 | 250 | 2016 | Spray Nozzles |
| Metso Crusher #2 | Metso Engine #2 | 250 | 2016 | Spray Nozzles |

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> |
|---------------------------|---------------------------------|----------------------------------|----------------------------|-----------------------|
| Portable Diesel Generator | 8.8 | 62.9 | Distillate fuel, 0.0015% | 2011 |
| Pegson Engine | 2.63 | 18.9 | Distillate fuel, 0.0015% | 2005 |
| Metso Engine #1 | 1.42 | 10.1 | Distillate fuel, 0.0015% | 2016 |
| Metso Engine #2 | 2.17 | 15.5 | Distillate fuel, 0.0015% | 2016 |
| Finlay Screen Engine | 1.0 | 7.1 | Distillate fuel, 0.0015% | 2012 |
| Extec Screen Engine | 0.55 | 3.9 | Distillate fuel, 0.0015% | 2004 |
| Rawson Screen Engine | 0.59 | 4.2 | Distillate fuel, 0.0015% | 1999 |
| MGL Stacker Engine | 0.59 | 4.2 | Distillate fuel, 0.0015% | 2017 |
| GeoTrek Stacker Engine | 0.51 | 3.6 | Distillate fuel, 0.0015% | 2011 |

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.

Virgin Oil. Virgin oil means any petroleum derived oil, including petroleum fuels, unused motor oils, hydraulic fluids, lubrication oils and other industrial oils, that are not characterized as waste oil.

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. Indications of transportability include, but are not limited to, wheels, skids, carrying handles, dolly, trailer, or platform. This definition does NOT include engines which remain or will remain at a location (excluding storage locations) for more than 12 consecutive months or a shorter period of time for an engine located at a seasonal source. A location is any single site at a building, structure, facility, or installation. Any engine that replaces an engine at a location and that is intended to perform the same or similar function as the engine replaced will be included in calculating the consecutive time period.

D. Application Classification

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

The application for Crooker includes the licensing of increased emissions or the installation of new or modified equipment. Therefore, the license is considered to be a renewal of currently licensed emission units and a license amendment, and has been processed through *Major and Minor Source Air Emission License Regulations*, 06-096 Code of Maine Rules (C.M.R.) ch. 115. With the annual

production limit on the asphalt plant and the annual fuel limit on the engines, 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.

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 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 | 2.9 | 0.3 | -2.6 | 100 |
| PM ₁₀ | 2.9 | 0.3 | -2.6 | 100 |
| SO ₂ | 19.8 | 12.2 | -7.6 | 100 |
| NO _x | 27.4 | 40.3 | 12.9 | 100 |
| CO | 52.0 | 56.6 | 4.6 | 100 |
| VOC | 6.0 | 1.3 | -4.7 | 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.

Because future total licensed allowed emissions do not exceed the significant emissions levels, this modification does not make the minor source a major source, in accordance with definitions in 06-096 C.M.R. ch. 100.

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

Crooker operates an asphalt batch plant with a maximum hourly throughput of 180 ton/hr of asphalt and a 103 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. In other words, 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 will now be limited instead of fuel consumption. Accordingly, the annual throughput of the asphalt batch plant shall not exceed 275,000 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:

Natural Gas

- PM, PM₁₀ – 0.03 gr/dscf and the use of a baghouse
- SO₂ – 0.0046 lb/ton based on AP-42 Table 11.1-5 dated 3/04
- NO_x – 0.25 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

Distillate Fuel/Specification Waste Oil

- 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:

| Unit | PM (lb/hr) | PM ₁₀ (lb/hr) | SO ₂ (lb/hr) | NO _x (lb/hr) | CO (lb/hr) | VOC (lb/hr) |
|---|---------------|-----------------------------|----------------------------|----------------------------|---------------|----------------|
| Asphalt Plant Natural Gas | 0.11 | 0.11 | 0.83 | 45.00 | 72.00 | 1.48 |
| Asphalt Plant Distillate fuel Spec. waste oil | 0.11 | 0.11 | 15.84 | 21.60 | 72.00 | 1.48 |

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 which, by definition, has a sulfur content of 0.5% or less by weight. Per 38 M.R.S. § 603-(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, beginning July 1, 2018, the distillate fuel purchased or otherwise obtained for use in the asphalt batch plant shall not exceed 0.0015% sulfur by weight (15 ppm).

2. New Source Performance Standards

The batch asphalt plant was manufactured prior to 1973 and is therefore not 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, Crooker 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.

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

Crooker 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.

5. Contaminated Soils

Crooker may process up to 10,000 cubic yards per year of soil contaminated by gasoline or distillate fuel without prior approval from the Department. This limit may be exceeded with written authorization from the Department. The plant owner or operator shall notify the Department (regional inspector) at least 24 hours prior to processing the contaminated soil and specify the contaminating fuel and quantity, origin of the soil and fuel, and the disposition of the contaminated soil.

Crooker may process up to 5,000 cubic yards per year of soil contaminated with virgin oil as defined in this license/amendment without prior approval from the Department's Bureau of Air Quality. Processing of virgin oil contaminated soils may require a solid waste processing facility license under Maine Solid Waste Management Rules, 06-096 C.M.R. ch. 409. The material shall be handled in accordance with the requirements of the Department's Bureau of Remediation and Waste Management.

Crooker shall not process soils which are classified as hazardous waste or which have unknown contaminants.

When processing contaminated soils, Crooker shall maintain records which specify the quantity and type of contaminant in the soil as well as the origin and characterization of the contaminated soil. In addition, when processing contaminated soil, Crooker shall maintain records of processing temperature, asphalt feed rates, and dryer throughput on an hourly basis. The material shall be handled in accordance with the requirements of the Department's Bureau of Remediation and Waste Management.

C. Nonmetallic Mineral Processing Plants

The Primary, Secondary, and Tertiary rock crushers were manufactured in 2005, 1998, and 1998 with rated capacities of 360 tons/hr, 340 tons/hr, and 230 tons/hr, respectively. The Pegson Crusher is a portable unit that was manufactured in 2005 and has a rated capacity of 245 tons/hr. Portable Crusher #1 is a portable unit manufactured in 1988 and with a rated capacity of 225 tons/hr. Metso Crushers #1 and #2 are portable units that were manufactured in 2016 and both have rated capacities of 250 tons/hr. The nonmetallic mineral processing plant also consists of other equipment associated with the Primary, Secondary, and Tertiary Rock Crushers, the Pegson Crusher, Portable Crusher #1, and Metso Crushers #1 and #2, 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, Crooker shall maintain water sprays on the nonmetallic mineral processing plant and operate as needed to control visible emissions. Visible emissions from the Rock Crushers shall be limited to no greater than 10% opacity on a six-minute block average basis.

2. New Source Performance Standards

The federal regulation *Standards for Performance for Nonmetallic Mineral Processing Plants*, 40 C.F.R. Part 60, Subpart OOO applies to equipment which commenced construction, modification, or reconstruction after August 31, 1983, in nonmetallic mineral processing plants with a maximum capacity of 150 ton/hour for portable plants and 25 ton/hour for fixed plants. The affected equipment at a mineral processing plant potentially includes each crusher, grinding mill, screening operation, bucket elevator, belt conveyor, bagging operation, storage bin, and enclosed truck or railcar loading station. [40 C.F.R. § 60.670(a)]

The Primary, Secondary, and Tertiary Crushers were manufactured prior to August 31, 1983, and have not undergone a modification or reconstruction as defined in 40 C.F.R. Part 60, Subpart OOO. Therefore, this equipment is not subject to this Subpart. [40 C.F.R. § 60.670(e)]

The Primary, Secondary, and Tertiary Crushers are part of a stationary nonmetallic mineral processing plant with a maximum capacity of greater than 25 ton/hr and were manufactured after August 31, 1983. Portable Crusher #1 and Metso Crushers #1 and #2 are part of portable nonmetallic mineral processing plants with maximum capacities greater than 150 ton/hr and were manufactured after August 1, 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 for 40 C.F.R. Part 60, Subpart OOO

a. Standards

Subpart OOO, Table 3 contains applicable visible emission requirements for the Primary, Secondary, and Tertiary Crushers, the Pegson Crusher, Portable Crusher #1, and Metso Crushers #1 and #2. 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 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

Crooker shall maintain records detailing the maintenance on particulate matter control equipment including spray nozzles. Crooker 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 000, § 60.675 requires that Crooker conduct an initial performance test on the Primary, Secondary, and Tertiary Crushers, the Pegson Crusher, Portable Crushers #1, Metso Crushers #1 and #2, and any associated grinding mill, screening operation, bucket elevator, belt conveyor, bagging operation, storage bin, and enclosed truck or railcar loading station. The performance tests were completed for the Primary, Secondary, and Tertiary Crushers in July 2001, for the Pegson Crusher in October 2006, and for Portable Crusher #1 in June 2009, and all necessary documentation has been provided to the Department. Initial performance tests for Metso Crushers #1 and #2 must be completed within 60 days of achieving the maximum production rate, but no later than 180 days after initial startup of the units.

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 000, § 60.675. [40 C.F.R. § 60.675(c) and 06-096 C.M.R. ch. 115, BACT/BPT]
- (3) Crooker 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) and 06-096 C.M.R. ch. 115, BACT/BPT]

d. Reporting and Recordkeeping Requirements

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

D. Engines

The generator designated Portable Diesel Generator is a portable engine used to power Portable Crusher #1. The portable Diesel Generator has a maximum capacity of 8.8 MMBtu/hr (905 kW), firing distillate fuel. The engine was manufactured in 2010 and is a CAT Engine Model C27. The Portable Diesel Generator will be operated seasonally at both the Topsham (A-187-71-M-R/A) and Whitefield (A-507-71-G-R) Crooker facilities and will be include in both facilities' air emission licenses.

The Pegson Engine powers the Pegson Crusher, and has a maximum capacity of 2.63 MMBtu/hr (270 kW), firing distillate fuel. The engine was manufactured in 2005.

Metso Engines #1 and #2 power Metso Crushers #1 and #2, and have maximum capacities of 1.42 MMBtu/hr (145 kW) and 2.17 MMBtu/hr (220 kW) firing distillate fuel, respectively. The engines were both manufactured in 2016.

The Finlay Screen Engine, Extec Screen Engine, and Rawson Screen Engine provide power to portable screening operations associated with the Nonmetallic Mineral Processing Plants, and have capacities of 1.0 MMBtu/hr (102.5 kW), 0.55 MMBtu/hr (56.4 kW), and 0.59 MMBtu/hr (60.5 kW) firing distillate fuel, respectively. The engines were manufactured in 2012, 2004, and 1999, respectively.

The MGL Stacker Engine and GeoTrek Stacker Engine provide power to portable conveyors associated with the Nonmetallic Mineral Processing Plants, and have capacities of 0.59 MMBtu/hr (60.5 kW) and 0.51 MMBtu/hr (52.3 kW) firing distillate fuel, respectively. The engines were manufactured in 2011 and 2004, respectively.

The engines shall be limited to a combined 27,000 gallons/year 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 Portable Diesel Generator were based on the following:

| Pollutant | Emission Factor | Source of Emission Factor |
|----------------------|------------------------|---|
| PM, PM ₁₀ | 0.12 lb/MMBtu | 06-096 C.M.R. ch. 103 |
| SO ₂ | 0.0015 lb/MMBtu | 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 | AP-42 Table 3.4-1 dated 10/96 |
| CO | 0.85 lb/MMBtu | AP-42 Table 3.4-1 dated 10/96 |
| VOC | 0.09 lb/MMBtu | AP-42 Table 3.4-1 dated 10/96 |
| Visible Emissions | N.A. | 06-096 C.M.R. ch. 115, BPT |

The BACT/BPT emission limits for the Pegson Engine, Metso Engines #1 and #2, Finlay Screen Engine, Extec Screen Engine, Rawson Screen Engine, MGL Stacker Engine, and GeoTrek Stacker Engine were based on the following:

| Pollutant | Emission Factor | Source of Emission Factor |
|----------------------|------------------------|---|
| PM, PM ₁₀ | 0.12 lb/MMBtu | 06-096 C.M.R. ch. 115, BPT |
| SO ₂ | 0.0015 lb/MMBtu | 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 | AP-42 Table 3.3-1 dated 10/96 |
| CO | 0.95 lb/MMBtu | AP-42 Table 3.3-1 dated 10/96 |
| VOC | 0.35 lb/MMBtu | AP-42 Table 3.3-1 dated 10/96 |
| Visible Emissions | N.A. | 06-096 C.M.R. ch. 115, BPT |

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

| Unit | Pollutant | lb/MMBtu |
|---------------------------|------------------|-----------------|
| Portable Diesel Generator | PM | 0.12 |

| Unit | PM (lb/hr) | PM ₁₀ (lb/hr) | SO ₂ (lb/hr) | NO _x (lb/hr) | CO (lb/hr) | VOC (lb/hr) |
|--|---------------|-----------------------------|----------------------------|----------------------------|---------------|----------------|
| Portable Diesel Generator (8.8 MMBtu/hr) Distillate fuel | 1.06 | 1.06 | 0.01 | 28.16 | 7.48 | 0.79 |
| Pegson Engine (2.63 MMBtu/hr) Distillate fuel | 0.32 | 0.32 | -- | 11.60 | 2.50 | 0.92 |
| Metso Engine #1 (1.42 MMBtu/hr) Distillate fuel | 0.17 | 0.17 | -- | 6.26 | 1.35 | 0.50 |
| Metso Engine #2 (2.17 MMBtu/hr) Distillate fuel | 0.26 | 0.26 | -- | 9.57 | 2.06 | 0.76 |
| Finlay Screen Engine (1.0 MMBtu/hr) Distillate fuel | 0.12 | 0.12 | -- | 4.41 | 0.95 | 0.35 |
| Extec Screen Engine (0.55 MMBtu/hr) Distillate fuel | 0.07 | 0.07 | -- | 2.43 | 0.52 | 0.19 |
| Rawson Screen Engine (0.59 MMBtu/hr) Distillate fuel | 0.07 | 0.07 | -- | 2.60 | 0.56 | 0.21 |
| MGL Stacker Engine (0.59 MMBtu/hr) Distillate fuel | 0.07 | 0.07 | -- | 2.60 | 0.56 | 0.21 |
| GeoTrek Stacker Engine (0.51 MMBtu/hr) Distillate fuel | 0.06 | 0.06 | -- | 2.25 | 0.48 | 0.18 |

Visible emissions from each engine shall not exceed 20% opacity on a six-minute block average basis.

2. New Source Performance Standards

The Portable Diesel Generator, Pegson Engine, Metso Engine #1, Metso Engine #2, Finlay Screen Engine, Extec Screen Engine, Rawson Screen Engine, MGL Stacker Engine, and GeoTrek Stacker Engine are considered non-road engines, as opposed to stationary engines, since they are portable and will be moved to various sites. Therefore, the engines are not subject to *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines*, 40 C.F.R. Part 60, Subpart III. [40 C.F.R. § 60.4200]

3. National Emission Standards for Hazardous Air Pollutants

The Portable Diesel Generator, Pegson Engine, Metso Engine #1, Metso Engine #2, Finlay Screen Engine, Extec Screen Engine, Rawson Screen Engine, MGL Stacker Engine, and GeoTrek Stacker Engine are considered non-road engines, as opposed to stationary engines, since they are portable and will be moved to various sites. Therefore, the engines 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]

E. Parts Washers

Crooker utilizes four parts washers in their automotive shop. The parts washers are Safety-Kleen parts degreasers and use Crystal Clean 142 solvent. Crooker uses approximately 360 gallons of solvent per year. The parts washers are subject to *Solvent Cleaners*, 06-096 C.M.R. ch. 130 and records shall be kept documenting compliance.

F. Brake and Electric Motor Cleaning Process

Crooker makes use of Brakleen non-chlorinated brake cleaner to spray clean parts in their automotive shop. The solvent is purchased in 14-ounce cans and is approximately 50% volatile.

Crooker anticipates no increase in the volume of cleaner used annually. Annual VOC emissions from the process will total approximately 0.15 tons of VOC per year. This activity is considered to be insignificant, and therefore will not be included in the total licensed annual emissions for the facility.

G. Paint Shop

Crooker makes use of a paint room in their automotive shop. Crooker uses approximately 125 gallons of various paints, hardeners, and cleaning solvents in their paint room per year. The materials range in percent volatile concentrations from less than 20% to about 70%.

VOC emissions from the paint shop were calculated in a previous license to be approximately 0.45 tons per year. This activity is considered to be insignificant, and therefore will not be included in the total licensed annual emissions for the facility. To demonstrate that this activity remains below the insignificant threshold, Crooker shall maintain a record of the volume of coatings, hardeners, resins, and cleaning solvents used and the VOC and HAP content of the materials based on a calendar year.

H. Particulate Matter Control Spray System

Crooker utilizes a chemical flocculant as an additive to the water spray that is sprayed over stock piles and roadways to control fugitive particulate emissions. The flocculant brand name is Compound MR. It has a VOC content of 90% and has a weight of approximately 8.4 pounds per gallon. Crooker uses approximately one 55-gallon drum of the material every six years. This gives the facility a VOC emission rate from using Compound MR of approximately 76 lb/yr.

Crooker utilizes a second chemical flocculant as an additive to their water spray system for fugitive particulate matter control of stock piles and roadways. The brand name of the second flocculant is NALCLEAR 8194. The flocculant has a VOC content of approximately 6.0% and weighs approximately 8.8 pounds per gallon. Crooker uses approximately 165 gallons of the material every year. This gives the facility a VOC emission rate from using NALCLEAR 8194 of approximately 87 lb/yr.

Crooker has a VOC emission rate resulting from the use of chemical flocculant in the water spray for fugitive particulate matter of approximately 163 lb/yr. This activity is considered to be insignificant and will not be included in the total licensed annual emissions for the facility. To demonstrate this activity remains below the insignificant threshold, Crooker shall maintain a record of the volume of flocculant additive used and the VOC and HAP content of the materials on a calendar year basis.

I. Other Facility Fuel Burning Activities

1. Crooker makes use of two boilers to maintain the temperature of the asphalt while in the storage silos. The Silo 1 and Silo 2 Boilers each have maximum

design heat input capacities of 0.94 MMBtu/hr and fire either natural gas or distillate fuel. The boilers are below the 1.0 MMBtu/hr threshold for insignificant activities and are mentioned for inventory purposes only.

2. Crooker also makes use of a waste oil fired boiler to burn the waste oil generated at the facility. This boiler has a maximum design heat input capacity of 0.34 MMBtu/hr. This boiler is also below the 1.0 MMBtu/hr licensing threshold and is mentioned only for inventory purposes.

J. 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.

K. General Process Emissions

Visible emissions from any general process (including conveyor belts, transfer points, portable screens, etc.) associated with an NSPS rock crusher shall not exceed 7% opacity on a six-minute block average basis. Compliance with this limit shall be demonstrated by conducting the initial performance test according to 40 C.F.R. §§ 60.11 and 60.675 and periodic inspections of the water sprays according to §§ 60.674(b) and 60.676(b). [40 C.F.R. Part 60, Subpart OOO, Table 3]

Visible emissions from any other general process (non-NSPS crusher conveyor belts, bucket elevators, bagging operations, truck loading operations, portable screens, etc.) shall not exceed 20% opacity on a six-minute block average basis.

L. Annual Emissions

1. Total Annual Emissions

Crooker shall be restricted to the following annual emissions, based on a 12-month rolling total. The tons per year limits were calculated based on 275,000 tons/yr of asphalt throughput using the higher emission factor from either distillate fuel or natural gas, and a combined 27,000 gal/yr distillate fuel fired in the Portable Diesel Generator, Pegson Engine, Metso Engines #1 and #2, Finlay Screen Engine, Extex Screen Engine, Rawson Screen Engine, MGL Stacker Engine, and GeoTrek Stacker Engine:

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 | 0.1 | 0.1 | 12.1 | 34.4 | 55.0 | 1.1 |
| Engines | 0.2 | 0.2 | 0.1 | 5.9 | 1.6 | 0.2 |
| Total TPY | 0.3 | 0.3 | 12.2 | 40.3 | 56.6 | 1.3 |

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 production and 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 |

| Pollutant | Tons/Year |
|-----------|-----------|
| 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-187-71-M-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 (180 tons/hr)**

A. Fuel Use

1. The asphalt plant is licensed to fire distillate fuel, specification waste oil, and natural gas. [06-096 C.M.R. ch. 115, BPT]
2. Prior to July 1, 2018, distillate fuel fired at the facility shall not exceed a maximum sulfur content of 0.5% by weight. [06-096 C.M.R. ch. 115, BPT]
3. Beginning July 1, 2018, 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]

B. The annual throughput of the asphalt plant shall not exceed 275,000 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, Crooker 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 | |
|------------------|----------|-------------|-------------------------------------|
| | | Natural Gas | Distillate fuel, Spec. waste oil |
| PM | 0.03 | 0.11 | 0.11 |
| PM ₁₀ | - | 0.11 | 0.11 |
| SO ₂ | - | 0.83 | 15.84 |
| NO _x | - | 45.00 | 21.60 |
| CO | - | 72.00 | 72.00 |
| VOC | - | 1.48 | 1.48 |

- 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]
- I. Crooker may process up to 10,000 cubic yards per year of soil contaminated by gasoline or distillate fuel without prior approval from the Department. This limit may be exceeded with written authorization from the Department. The plant owner or operator shall notify the Department (regional inspector) at least 24 hours prior to processing the contaminated soil and specify the contaminating fuel and quantity, origin of the soil and fuel, and the disposition of the contaminated soil. [06-096 C.F.R. 115, BPT]
- J. Crooker may process up to 5,000 cubic yards per year of soil contaminated with virgin oil as defined by the Bureau of Air Quality without prior approval from the Bureau of Air Quality. Processing of virgin oil contaminated soils may require a solid waste processing facility license under 06-096 C.M.R. ch. 409.

The material shall be handled in accordance with the requirements of the Department's Bureau of Remediation and Waste Management. [06-096 C.M.R. ch. 115, BPT]

- K. Crooker shall not process soils which are classified as hazardous waste or which have unknown contaminants. [06-096 C.M.R. ch. 115, BPT]
- L. When processing contaminated soils, Crooker shall maintain records which specify the quantity and type of contaminant in the soil as well as the origin and characterization of the contaminated soil. In addition, when processing contaminated soil, Crooker shall maintain records of processing temperature, asphalt feed rates, and dryer throughput on an hourly basis. The material shall be handled in accordance with the requirements of the Department's Bureau of Remediation and Waste Management. [06-096 C.M.R. ch. 115, BPT]

(17) Nonmetallic Mineral Processing Plants

- A. Crooker shall install and maintain spray nozzles for control of particulate matter on the nonmetallic mineral processing plant. [06-096 C.M.R. ch. 115, BPT]
- B. Crooker 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 the Primary, Secondary, and Tertiary Crushers, the Pegson Crusher, Portable Crusher #1, and Metso Crushers #1 and #2 shall each be limited to no greater than 10% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 101]
- D. NSPS Subpart OOO

Crooker shall comply with all requirements of 40 C.F.R. Part 60, Subpart OOO applicable to each crusher, 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 000, Table 3]
3. Crooker shall maintain records detailing the maintenance on particulate matter control equipment (including spray nozzles). Crooker 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, BPT and 40 C.F.R. § 60.674(b)]
4. Crooker shall either have an initial performance test performed on Metso Crushers #1 and #2 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, 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, BPT]
6. Crooker shall submit a test notice to the Department and the EPA 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)]
7. For the rock crushers and ancillary equipment subject to 40 C.F.R. Part 60, Subparts A and 000, Crooker 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)]

(18) Engines

A. Fuel Use

1. The Portable Diesel Generator, Pegson Engine, Metso Engines #1 and #2, Finlay Screen Engine, Extec Screen Engine, Rawson Screen Engine, MGL Stacker Engine, and GeoTrek Stacker Engine 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 Portable Diesel Generator, Pegson Engine, Metso Engines #1 and #2, Finlay Screen Engine, Extec Screen Engine, Rawson Screen Engine, MGL Stacker Engine, and GeoTrek Stacker Engine shall not exceed 27,000 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 |
|---------------------------|------------------|-----------------|--------------------------------------|
| Portable Diesel 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) | PM₁₀ (lb/hr) | SO₂ (lb/hr) | NO_x (lb/hr) | CO (lb/hr) | VOC (lb/hr) |
|--|-----------------------|------------------------------------|-----------------------------------|-----------------------------------|-----------------------|------------------------|
| Portable Diesel Generator (8.8 MMBtu/hr) Distillate fuel | 1.06 | 1.06 | 0.01 | 28.16 | 7.48 | 0.79 |
| Pegson Engine (2.63 MMBtu/hr) Distillate fuel | 0.32 | 0.32 | -- | 11.60 | 2.50 | 0.92 |
| Metso Engine #1 (1.42 MMBtu/hr) Distillate fuel | 0.17 | 0.17 | -- | 6.26 | 1.35 | 0.50 |
| Metso Engine #2 (2.17 MMBtu/hr) Distillate fuel | 0.26 | 0.26 | -- | 9.57 | 2.06 | 0.76 |
| Finlay Screen Engine (1.0 MMBtu/hr) Distillate fuel | 0.12 | 0.12 | -- | 4.41 | 0.95 | 0.35 |

| Unit | PM (lb/hr) | PM ₁₀ (lb/hr) | SO ₂ (lb/hr) | NO _x (lb/hr) | CO (lb/hr) | VOC (lb/hr) |
|---|---------------|-----------------------------|----------------------------|----------------------------|---------------|----------------|
| Extec Screen Engine (0.55 MMBtu/hr) Distillate fuel | 0.07 | 0.07 | -- | 2.43 | 0.52 | 0.19 |
| Rawson Screen Engine (0.59 MMBtu/hr) Distillate fuel | 0.07 | 0.07 | -- | 2.60 | 0.56 | 0.21 |
| MGL Stacker Engine (0.59 MMBtu/hr) Distillate fuel | 0.07 | 0.07 | -- | 2.60 | 0.56 | 0.21 |
| GeoTrek Stacker Engine (0.51 MMBtu/hr) Distillate fuel | 0.06 | 0.06 | -- | 2.25 | 0.48 | 0.18 |

D. 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/BPT]

(19) **Parts Washers**

Parts washers at Crooker are subject to *Solvent Cleaners*, 06-096 C.M.R. ch. 130.

A. Crooker shall keep records of the amount of solvent added to each parts washer. [06-096 C.M.R. ch. 115, BPT]

B. The following are exempt from the requirements of 06-096 C.M.R. ch. 130 [06-096 C.M.R. ch. 130]:

1. Solvent cleaners using less than two liters (68 oz.) of cleaning solvent with a vapor pressure of 1.00 mmHg, or less, at 20° C (68° F);
2. Wipe cleaning; and,
3. Cold cleaning machines using solvents containing less than or equal to 5% VOC by weight.

C. The following standards apply to cold cleaning machines that are applicable sources under 06-096 C.M.R. ch. 130.

1. Crooker shall attach a permanent conspicuous label to each unit summarizing the following operational standards [06-096 C.M.R. ch. 130]:
 - a. Waste solvent shall be collected and stored in closed containers.
 - b. Cleaned parts shall be drained of solvent directly back to the cold cleaning machine by tipping or rotating the part for at least 15 seconds or until dripping ceases, whichever is longer.

- c. Flushing of parts shall be performed with a solid solvent spray that is a solid fluid stream (not a fine, atomized or shower type spray) at a pressure that does not exceed 10 psig. Flushing shall be performed only within the freeboard area of the cold cleaning machine.
- d. The cold cleaning machine shall not be exposed to drafts greater than 40 meters per minute when the cover is open.
- e. Sponges, fabric, wood, leather, paper products and other absorbent materials shall not be cleaned in the parts washer.
- f. When a pump-agitated solvent bath is used, the agitator shall be operated to produce no observable splashing of the solvent against the tank walls or the parts being cleaned. Air agitated solvent baths may not be used.
- g. Spills during solvent transfer shall be cleaned immediately. Sorbent material used to clean spills shall then be immediately stored in covered containers.
- h. Work area fans shall not blow across the opening of the parts washer unit.
- i. The solvent level shall not exceed the fill line.

2. The remote reservoir cold cleaning machine shall be equipped with a perforated drain with a diameter of not more than six inches.
[06-096 C.M.R. ch. 130]

(20) To demonstrate that paint room activities remain below the significant emissions threshold of 1.0 ton per year of VOC and HAP emissions, Crooker shall maintain a record of the volume of coatings, hardeners, resins, and cleaning solvents used and the VOC and HAP content of the paint on a calendar year basis. [06-096 C.M.R. ch. 115, BPT]

(21) **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]

(22) **General Process Sources**

Visible emissions from any general process (including conveyor belts, transfer points, portable screens, etc.) associated with an NSPS rock crusher shall not exceed 7% opacity on a six-minute block average basis. Compliance with this limit shall be demonstrated by conducting the initial performance test according to

40 C.F.R. §§ 60.11 and 60.675 and periodic inspections of the water sprays according to §§ 60.674(b) and 60.676(b). [40 C.F.R. Part 60, Subpart OOO, Table 3]

Visible emissions from any other general process (non-NSPS crusher conveyor belts, bucket elevators, bagging operations, truck loading operations, portable screens, etc.) shall not exceed 20% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 115, BPT]

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

A. Crooker 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.

(24) Crooker 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]

(25) **Annual Emission Statement**

In accordance with *Emission Statements*, 06-096 C.M.R. ch. 137, the licensee shall annually report to the Department, in a format prescribed by the Department, the information necessary to accurately update the State's emissions inventory. The emission statement shall be submitted as specified by the date in 06-096 C.M.R. ch. 137.

**Crooker Construction, LLC
Sagadahoc County
Topsham, Maine
A-187-71-M-R/A**

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

- (26) Crooker 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 9 DAY OF April, 2018.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: *Paul Mercer*
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: February 10, 2017

Date of application acceptance: February 10, 2017

Date filed with the Board of Environmental Protection:

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

