



DEPARTMENT ORDER

**Patterson Asphalt Industries LLC
Knox County
Warren, Maine
A-1097-71-C-A**

**Departmental
Findings of Fact and Order
Air Emission License
Amendment #2**

FINDINGS OF FACT

After review of the air emission license amendment application, staff investigation reports, and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 Maine Revised Statutes (M.R.S.) § 344 and § 590, the Maine Department of Environmental Protection (the Department) finds the following facts:

I. REGISTRATION

A. Introduction

Patterson Asphalt Industries LLC (Patterson) was issued Air Emission License A-1097-71-A-N on June 4, 2014, for the operation of emission sources associated with their hot mix asphalt plant. The license was subsequently amended on April 8, 2016 (A-1097-71-B-A).

Patterson has requested an amendment to their license in order to add a stationary distillate fuel fired generator (Generator #2) and add propane as an alternative fuel to both Asphalt Plant #1 and Asphalt Heater #1. The specifications for both the Asphalt Plant #1 and Asphalt Heater #1 will also be updated in this license amendment.

The main office is located at 230 Old Augusta Road, Warren, Maine.

B. Emission Equipment

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

Asphalt Plant

Equipment	Process Rate (tons/hour)	Design Capacity (MMBtu/hr)	Fuel Type, % sulfur	Maximum Firing Rate	Control Device	Date of Manuf.
Drum mix Asphalt Plant #1	140	70.0	distillate fuel, 0.0015%	510 gal/hr	Baghouse	1981
			propane, neg.	766 gal/hr		

Heating Equipment

Equipment	Max. Capacity (MMBtu/hr)	Fuel Type, % sulfur	Maximum Firing Rate	Date of Manuf.
Asphalt Heater #1	1.0	distillate fuel, 0.0015%	7.5 gal/hr	1981
		propane, neg.	10.9 gal/hr	

Engines

Unit ID	Max. Capacity (MMBtu/hr)	Max. Firing Rate (gal/hr)	Fuel Type, % sulfur	Date of Manuf.
Generator #1	5.4	41.4	distillate fuel, 0.0015%	1981
Generator #2	4.9	35.7		2008

C. Definitions

Distillate Fuel means the following:

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

Records or Logs mean either hardcopy or electronic records.

D. Application Classification

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

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

Pollutant	Current License (TPY)	Future License (TPY)	Net Change (TPY)	Significant Emissions Levels
PM	5.6	5.5	-0.1	100
PM ₁₀	5.6	5.5	-0.1	100
SO ₂	4.9	1.4	-3.5	100
NO _x	21.1	20.7	-0.4	100
CO	20.0	20.2	0.2	100
VOC	4.5	4.5	0.0	50*

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

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

E. Facility Classification

With the annual asphalt production limit on Asphalt Plant #1, the facility is licensed as follows:

- As a synthetic minor source of air emissions for NO_x, because Patterson is subject to license restrictions that keep facility emissions below major source thresholds for criteria pollutants; and
- As an area source of hazardous air pollutants (HAP), because the licensed emissions are below the major source thresholds for HAP.

II. BEST PRACTICAL TREATMENT

A. Introduction

In order to receive a license, the applicant must control emissions from each unit to a level considered by the Department to represent Best Practical Treatment (BPT), as defined in *Definitions Regulation*, 06-096 C.M.R. ch. 100. Separate control requirement categories exist for new and existing equipment.

BPT for new sources and modifications requires a demonstration that emissions are receiving Best Available Control Technology (BACT), as defined in 06-096 C.M.R. ch. 100. BACT is a top-down approach to selecting air emission controls considering economic, environmental, and energy impacts.

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

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

B. Asphalt Plant #1

Patterson operates a stationary asphalt drum mix plant (Asphalt Plant #1) with a maximum hourly throughput of 140 ton/hr of asphalt and a 70 MMBtu/hr burner. Patterson has made Asphalt Plant #1 stationary and will no longer be moving the facility to different locations. Additionally, Patterson will add propane as an alternative fuel for Asphalt Plant #1.

Emission factors for asphalt plants are available based on tons of asphalt produced, and there is no linear relationship between plant output and burner firing rate. 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 plant shall not exceed 250,000 tons of asphalt per year on a calendar year basis.

Asphalt Plant #1 is licensed to fire distillate fuel which, by definition, has a sulfur content of 0.5% or less by weight. Pursuant to 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 Asphalt Plant #1 shall not exceed 0.0015% by weight (15 ppm).

1. BPT and BACT Findings

The BPT emission limits for Asphalt Plant #1 firing distillate fuel were based on the following:

Distillate Fuel

PM, PM ₁₀	– 0.03 gr/dscf and the use of a baghouse
SO ₂	– 0.011 lb/ton based on AP-42 Table 11.1-7 dated 3/04
NO _x	– 0.055 lb/ton based on AP-42 Table 11.1-7 dated 3/04
CO	– 0.13 lb/ton based on AP-42 Table 11.1-7 dated 3/04
VOC	– 0.032 lb/ton based on AP-42 Table 11.1-8 dated 3/04
Visible Emissions	– 40 C.F.R. § 60.11(c)

The BACT emission limits for Asphalt Plant #1 firing propane were based on the following:

Propane

PM, PM ₁₀	– 0.03 gr/dscf and the use of a baghouse
SO ₂	– 0.0034 lb/ton based on AP-42 Table 11.1-7 dated 3/04
NO _x	– 0.026 lb/ton based on AP-42 Table 11.1-7 dated 3/04
CO	– 0.13 lb/ton based on AP-42 Table 11.1-7 dated 3/04
VOC	– 0.032 lb/ton based on AP-42 Table 11.1-8 dated 3/04

Visible – 40 C.F.R. § 60.11(c)
Emissions

The emission limits for Asphalt Plant #1 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 #1 (distillate fuel)	5.09	5.09	1.54	7.70	18.20	4.48
Asphalt Plant #1 (propane)	5.09	5.09	0.48	3.64	18.20	4.48

Asphalt Plant #1 is exempt from the requirements of *Visible Emissions Regulation*, 06-096 C.M.R. ch. 101 because it is subject to a visible emission standard under 40 C.F.R. Part 60, Subpart I.

Visible emissions from Asphalt Plant #1 shall not exceed 20% opacity on a 6-minute block average basis. [40 C.F.R. §§ 60.92(a)(2) and 60.93(b)(2)] This standard applies at all times except during periods of startup, shutdown, and malfunction. [40 C.F.R. § 60.11(c)]

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.

2. New Source Performance Standards

Asphalt Plant #1 was manufactured in 1981 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.

The requirements of 40 C.F.R. Part 60, Subpart I are already included in this license.

C. Asphalt Heater #1

Asphalt Heater #1 has a maximum capacity of 1.0 MMBtu/hr, and fires distillate fuel or propane. Asphalt Heater #1 was manufactured in 1981. The maximum firing rate of Asphalt Heater #1 will be updated in this license amendment to more accurately reflect its present configuration, as well as adding propane as an alternative fuel. Asphalt Heater #1 previously had an identified maximum firing rate of 1.5 MMBtu/hr firing distillate fuel, which was found to be incorrect by the facility.

Asphalt Heater #1 is licensed to fire distillate fuel which, by definition, has a sulfur content of 0.5% or less by weight. Pursuant to 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 Asphalt Heater #1 shall not exceed 0.0015% by weight (15 ppm).

1. BACT Findings

The BACT emission limits for Asphalt Heater #1 were based on the following:

Distillate Fuel

- PM, PM₁₀ – 0.08 lb/MMBtu based on 06-096 C.M.R. ch. 115, BACT
- SO₂ – based on firing distillate fuel with a maximum sulfur content of 0.0015% by weight
- NO_x – 20 lb/1,000 gal based on AP-42 Table 1.3-1 dated 5/10
- CO – 5 lb/1,000 gal based on AP-42 Table 1.3-1 dated 5/10
- VOC – 0.34 lb/1,000 gal based on AP-42 Table 1.3-3 dated 5/10
- Visible Emissions – 06-096 C.M.R. ch. 115, BACT

Propane

- PM, PM₁₀ – 0.05 lb/MMBtu based on 06-096 C.M.R. ch. 115, BACT
- SO₂ – 0.054 lb/1000 gal based on AP-42 Table 1.5-1 dated 7/08
- NO_x – 13 lb/1,000 gal based on AP-42 Table 1.5-1 dated 7/08
- CO – 7.5 lb/1,000 gal based on AP-42 Table 1.5-1 dated 7/08
- VOC – 1 lb/1,000 gal based on AP-42 Table 1.5-1 dated 7/08
- Visible Emissions – 06-096 C.M.R. ch. 115, BACT

The BACT emission limits for Asphalt Heater #1 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 Heater #1 (distillate fuel)	0.08	0.08	0.01	0.14	0.04	0.01
Asphalt Heater #1 (propane)	0.05	0.05	0.01	0.14	0.08	0.01

When firing distillate fuel, visible emissions from Asphalt Heater #1 shall not exceed 20% opacity on a six-minute block average basis.

When firing propane, Visible emissions from Asphalt Heater #1 shall not exceed 10% opacity on a six-minute block average basis.

2. New Source Performance Standards

Due to the size and because it does not generate steam, Asphalt Heater #1 is not subject to the New Source Performance Standards (NSPS) *Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units*, 40 C.F.R. Part 60, Subpart Dc for units greater than 10 MMBtu/hr manufactured after June 9, 1989. [40 C.F.R. § 60.40c]

3. National Emission Standards for Hazardous Air Pollutants

Asphalt Heater #1 does not heat water. It does not meet the definition of a “boiler” and therefore is not subject to National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources, 40 C.F.R. Part 63 Subpart JJJJJ.

D. Generator #1

Generator #1 is a portable engine that is not able to be categorized as a stationary, non-emergency engine without the addition of emissions control equipment and additional testing as required under 40 C.F.R. Part 63, Subpart ZZZZ. To ensure that Generator #1 does not become classified as a stationary non-emergency engine, it shall not be used to power Asphalt Plant #1, its associated equipment, or any other stationary equipment.

E. Generator #2

Generator #2 is a stationary engine used to power Asphalt Plant #1. Generator #2 has a maximum capacity of 4.9 MMBtu/hr (500 kw) firing distillate fuel. The generator was manufactured in 2008 and is a Cummins Engine Model QSX15-G9. The fuel fired in Generators #1 and #2 combined shall be limited to 60,000 gallons/year on a calendar year total basis of distillate fuel with a maximum sulfur content not to exceed 15 ppm (0.0015% sulfur by weight). This fuel limit shall apply regardless of where the units are operated.

1. BACT Findings

The BACT emission limits for Generator #2 were based on the following:

PM/PM ₁₀	- 0.12 lb/MMBtu from 06-096 C.M.R. ch. 103
SO ₂	- 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, BACT

The BACT emission limits for Generator #2 are the following:

Unit	Pollutant	lb/MMBtu
Generator #2	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)
Generator #2	0.59	0.59	0.01	15.68	4.17	0.44

Visible emissions from Generator #2 shall not exceed 20% opacity on a six-minute block average basis except for periods of startup during which time Patterson may comply with the following work practice standards in lieu of the numerical visible emissions standard.

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

2. New Source Performance Standards

Standards of Performance for Stationary Compression Ignition Internal Combustion Engines, 40 C.F.R. Part 60, Subpart IIII is applicable to the engine listed above since the unit was ordered after July 11, 2005, and manufactured after April 1, 2006. [40 C.F.R. § 60.4200] By meeting the requirements of 40 C.F.R. Part 60, Subpart IIII, the unit also meets the requirements found in the *National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines*, 40 C.F.R. Part 63, Subpart ZZZZ. [40 C.F.R. § 63.6590(c)]

A summary of the currently applicable federal 40 C.F.R. Part 60, Subpart III requirements is listed below.

- a. **Manufacturer Certification Requirement**
The engine shall be certified by the manufacturer as meeting the emission standards for new nonroad compression ignition engines found in 40 C.F.R. § 60.4202.
[40 C.F.R. § 60.4205(b)]
- b. **Ultra-Low Sulfur Fuel Requirement**
The fuel fired in the engine shall not exceed 15 ppm sulfur (0.0015% sulfur).
[40 C.F.R. § 60.4207(b)]
- c. **Operation and Maintenance Requirements**
The engine shall be operated and maintained according to the manufacturer's emission-related written instructions. Somerset County Jail may only change those emission-related settings that are permitted by the manufacturer.
[40 C.F.R. § 60.4211(a)]

F. Annual Emissions

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

- Processing 250,000 ton/year of asphalt;
- Operating Asphalt Heater #1 for 8,760 hours/year; and
- Firing 60,000 gal/year of distillate fuel in the generators.

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

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

	PM	PM₁₀	SO₂	NO_x	CO	VOC
Asphalt Plant #1	4.55	4.55	1.38	6.88	16.25	4.00
Asphalt Heater #1	0.37	0.37	0.01	0.66	0.36	0.05
Generators	0.49	0.49	0.01	13.15	3.49	0.37
Total TPY	5.5	5.5	1.4	20.7	20.2	4.5

Pollutant	Tons/year
Single HAP	9.9
Total HAP	24.9

III. AMBIENT AIR QUALITY ANALYSIS

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

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

ORDER

Based on the above Findings and subject to conditions listed below, the Department concludes that the emissions from this source:

- will receive Best Practical Treatment,
- will not violate applicable emission standards,
- will not violate applicable ambient air quality standards in conjunction with emissions from other sources.

The Department hereby grants Air Emission License Amendment A-1097-71-C-A, subject to the conditions found in Air Emission A-1097-71-A-N, in the amendment A-1097-71-B-A, and the following conditions.

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

SPECIFIC CONDITIONS

The following shall replace Specific Conditions (16), (17), and (23) of Air Emission License Amendment A-1097-71-B-A.

(16) Asphalt Plant #1

A. Fuel Use

1. Asphalt Plant #1 is licensed to fire distillate fuel and propane.
[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]

B. The annual throughput of the asphalt plant shall not exceed 250,000 tons of asphalt per year on a calendar year total basis. Records of asphalt productions shall be kept on a monthly and calendar year total basis. [06-096 C.M.R. ch. 115, BPT]

C. Emissions from Asphalt Plant #1 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, Patterson 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 of 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]:

Unit	PM (gr/dscf)	PM (lb/hr)	PM₁₀ (lb/hr)	SO₂ (lb/hr)	NO_x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Asphalt Plant #1 (distillate fuel)	0.03	5.09	5.09	1.54	7.70	18.20	4.48
Asphalt Plant #1 (propane)		5.09	5.09	0.48	3.64	18.20	4.48

- G. 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. 101, § 3(B)(4)]
- H. Visible emissions from the asphalt plant shall not exceed 20% opacity on a 6-minute block average basis. [40 C.F.R. §§ 60.92(a)(2) and 60.93(b)(2)] This standard applies at all times except during periods of startup, shutdown, and malfunction. [40 C.F.R. § 60.11(c)]
- I. Asphalt Plant #1 is subject to 40 CFR Part 60 Subparts A and I, and Patterson shall comply with all applicable requirements, including the notification and recordkeeping requirements of 40 CFR Part 60.7. [40 CFR Part 60, Subpart I]
- J. Patterson 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 Bureau of Air Quality. The plant owner or operator shall notify the Department (regional air compliance 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. This authorization to process contaminated soil does not absolve the facility of responsibility to comply with all other air emission license conditions and applicable state statutes. [06-096 C.F.R. ch. 115, BPT]
- K. Patterson 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, Patterson 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, Patterson 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) Asphalt Heater #1

A. Fuel

1. Asphalt Heater #1 is licensed to fire distillate fuel and propane. [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. Compliance shall be demonstrated by fuel records showing the quantity, type, and the percent sulfur of the fuel delivered (if applicable). Fuel sulfur content compliance shall be demonstrated by fuel delivery receipts from the supplier, certificate of analysis, or testing of the tank containing the fuel to be fired. [06-096 C.M.R. ch. 115, BPT]

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

Unit	PM (lb/hr)	PM₁₀ (lb/hr)	SO₂ (lb/hr)	NO_x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Asphalt Heater #1 (distillate fuel)	0.08	0.08	0.01	0.14	0.04	0.01
Asphalt Heater #1 (propane)	0.05	0.05	0.01	0.14	0.08	0.01

- C. When firing distillate fuel, visible emissions from Asphalt Heater #1 shall not exceed 20% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 101, 3(A)(2)]
- D. When firing propane, Visible emissions from Asphalt Heater #1 shall not exceed 10% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 101, 3(A)(3)]

(23) **Generators #1 and #2**

A. Fuel Use

1. Generators #1 and #2 are licensed to fire distillate fuel with a maximum sulfur content not to exceed 15 ppm (0.0015% sulfur by weight). Compliance shall be demonstrated by fuel delivery receipts from the supplier, fuel supplier certification, certificate of analysis, or testing of the tank containing the fuel to be fired. [06-096 C.M.R. ch. 115, BACT]
2. Total fuel use for Generators #1 and #2 combined shall not exceed 60,000 gal/yr of distillate fuel, regardless of where the unit(s) are operated. Compliance shall be demonstrated by fuel records from the supplier showing the quantity and type of fuel delivered. Records of annual fuel use shall be kept on a monthly and calendar year basis. [06-096 C.M.R. ch. 115, BPT]

B. Emissions shall not exceed the following:

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

Unit	PM (lb/hr)	PM ₁₀ (lb/hr)	SO ₂ (lb/hr)	NO _x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Generator #1	0.64	0.64	0.01	17.18	4.56	0.48
Generator #2	0.59	0.59	0.01	15.68	4.17	0.44

D. Visible Emissions

Visible emissions from each of the generators shall not exceed 20% opacity on a six-minute block average basis except for periods of startup during which time Patterson may comply with the following work practice standards in lieu of the numerical visible emissions standard. [06-096 C.M.R. ch. 101, § 3(A)(4)]

1. Maintain a log (written or electronic) of the date, time, and duration of all generator startups.
2. Operate the generators in accordance with the manufacturer's emission-related operating instructions.

3. Minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations shall apply.
 4. Operate the generators, including any associated air pollution control equipment, at all times in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Department that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the unit.
- E. Generator #1 shall not be used to power the stationary Asphalt Plant #1, its associated equipment, or any other stationary equipment.
- F. Patterson shall comply with all requirements of 40 C.F.R. Part 60, Subpart III applicable to Generator #2 including, but not limited to, the following:
1. **Manufacturer Certification Requirement**
The engine shall be certified by the manufacturer as meeting the emission standards for new nonroad compression ignition engines found in 40 C.F.R. § 60.4202.
[40 C.F.R. § 60.4205(b)]
 2. **Ultra-Low Sulfur Fuel Requirement**
The fuel fired in the engine shall not exceed 15 ppm sulfur (0.0015% sulfur).
[40 C.F.R. § 60.4207(b)]
 3. **Operation and Maintenance Requirements**
The engine shall be operated and maintained according to the manufacturer's emission-related written instructions. Somerset County Jail may only change those emission-related settings that are permitted by the manufacturer.
[40 C.F.R. § 60.4211(a)]

Patterson Asphalt Industries LLC
Knox County
Warren, Maine
A-1097-71-C-A

16

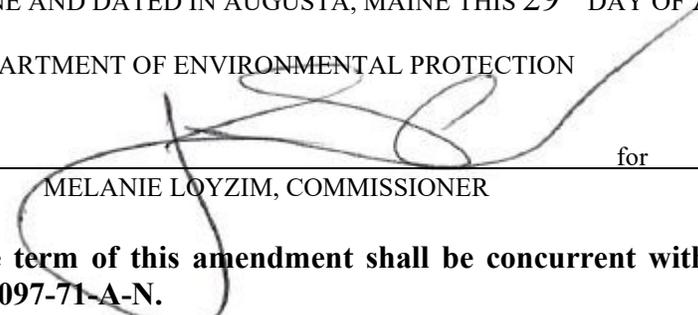
Departmental
Findings of Fact and Order
Air Emission License
Amendment #2

The following is a new Specific Condition of Air Emission License A-1097-71-A-N.

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

DONE AND DATED IN AUGUSTA, MAINE THIS 29th DAY OF AUGUST, 2022.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY:  for
MELANIE LOYZIM, COMMISSIONER

The term of this amendment shall be concurrent with the term of Air Emission License A-1097-71-A-N.

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: 8/4/22

Date of application acceptance: 8/5/22

Date filed with the Board of Environmental Protection:

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

