



DEPARTMENT ORDER

**The Lane Construction Corporation
Penobscot County
Hermon, Maine
A-257-71-R-R/A (SM)**

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

FINDINGS OF FACT

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

I. REGISTRATION

A. Introduction

The Lane Construction Corporation (Lane) has applied to renew their Air Emission License permitting the operation of their hot mix asphalt (HMA) plant and crushed stone and gravel facility.

Lane has requested an amendment to their license in order to add rock crusher TER54FH to this license from their A-590-71-H-R license, add rock crusher SANCH660 to this license, add Generator JD 6466 from their A-860-71-E-R/A license, add CAT Generator from their surrendered A-804-71-F-R license, remove rock crusher 66FHELJ from this license, include a fuel limit of 4,200 MMBtu/year (equivalent to approximately 30,000 gal/yr of distillate fuel) for the HYCGO-200 Hot Oil Heater, and decrease the fuel limit for the generators from 50,000 gal/yr of distillate fuel to 30,000 gal/yr of distillate fuel.

The Department has recently changed from limiting asphalt plants, including hot mix asphalt plants, by fuel use to limiting them by throughput to more accurately estimate potential emissions; therefore, the Department has imposed a throughput limit of 488,000 tons of HMA per year to replace the previously licensed fuel limit of 126,000 MMBtu/year for Batch Mix Asphalt Plant #26 and the HYCGO-200 Hot Oil Heater combined.

The equipment addressed in this license is located at 1067 Odlin Road, Hermon, Maine.

B. Emission Equipment

The following equipment is addressed in this Air Emission License:

Asphalt Plant

<u>Equipment</u>	<u>Process Rate (tons/hour)</u>	<u>Max. Capacity (MMBtu/hr)</u>	<u>Fuel Type, % Sulfur</u>	<u>Firing Rate</u>	<u>Control Devices</u>	<u>Date of Manuf.</u>
Batch Mix Asphalt Plant #26	420	150	Distillate Fuel, 0.5% Spec. Waste Oil, 0.7%	1,071.4 gal/hr	Baghouse	Plant: Pre-1973 Burner: 1998
			Propane, negl.	1,657.5 gal/hr		
			Natural Gas, negl.	145,631 scf/hr		

Rock Crushers

<u>Designation</u>	<u>Powered</u>	<u>Process Rate (tons/hour)</u>	<u>Date of Manufacture</u>	<u>Control Device</u>
4265ACPRI	Commercial	800	Pre-1973	Spray Nozzles
1260ACPRI	Commercial	400	Pre-1973	Spray Nozzles
H6000SVESEC	Commercial	540	1998	Spray Nozzles
SANCH660*	Commercial	500	2016	Spray Nozzles
1040GRPRI	Commercial	150	Pre-1973	Spray Nozzles
TER54FH*	Commercial	200	1992	Spray Nozzles

*New in this license

Rock crusher 66FHELJ has been removed from the site and is hereby removed from this air emission license.

Generator Units

<u>Unit ID</u>	<u>Max. Capacity (MMBtu/hr)</u>	<u>Max. Firing Rate (gal/hr)</u>	<u>Fuel Type, % S</u>	<u>Date of Manuf.</u>
CATD343	2.8	20.4	distillate fuel, 0.0015%	Pre-1973
CAT Gen.*	2.1	14.9	distillate fuel, 0.0015%	1997
JD 6466**	0.45	3.2	distillate fuel, 0.0015%	1980

*New in this license

** Included for completeness purposes only

Heating Equipment

Equipment	Maximum Capacity	Fuel Type, % Sulfur	Maximum Firing Rate
HYCGO-200 Hot Oil Heater	2.1 MMBtu/hr	Distillate Fuel, 0.5%	15 gal/hr
		Propane, negl.	23.2 gal/hr
		Natural Gas, negl.	2,039 scf/hr

Storage Silos

Unit	Storage Capacity	Date of Installation	Control Device
Cement Silo #1	225 tons	2008	Fabric Filter
Cement Silo #2	245 tons	2008	Fabric Filter
Hotmix Silo #1	275 tons	1992 (est.)	-
Hotmix Silo #2	275 tons	1992 (est.)	-
Hotmix Silo #3	275 tons	1994 (est.)	-
Hotmix Silo #4	250 tons	2016	-
Hotmix Silo #5	250 tons	2016	-
Hotmix Silo #6	250 tons	2016	-

C. Definitions

Distillate Fuel means fuel oil that complies with the specifications for fuel oil numbers 1 or 2, as defined by the American Society for Testing and Materials 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. This definition does not include specification waste 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.

D. Application Classification

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

<u>Pollutant</u>	<u>Current License (TPY)</u>	<u>Future License (TPY)</u>	<u>Net Change (TPY)</u>	<u>Significant Emission Levels</u>
PM	8.2	10.6	+2.4	100
PM ₁₀	8.2	10.6	+2.4	100
SO ₂	48.6	22.7	-25.9	100
NO _x	37.5	38.9	+1.4	100
CO	77.7	99.8	+22.1	100
VOC	7.9	9.6	+1.7	50
CO _{2e}	<100,000	<100,000	-	100,000

This amendment will not increase emissions of any pollutant above the significant emission levels; therefore, this application is determined to be a renewal with a minor modification and has been processed as such. The Department has determined the facility is a minor source and the application has been processed through *Major and Minor Source Air Emission License Regulations*, 06-096 C.M.R. ch. 115 (as amended). With the annual production limit on Batch Mix Asphalt Plant #26, the annual fuel limit on the HYCGO-200 Hot Oil Heater, and the annual fuel limit on the CATD343 and CAT Generators, the facility is licensed below the major source thresholds for criteria pollutants and is considered a synthetic minor. With the annual production limit on Batch Mix Asphalt Plant #26, the annual fuel limit on the HYCGO-200 Hot Oil Heater, and the annual fuel limit on the CATD343 and CAT Generators, the facility is licensed below the major source thresholds for hazardous air pollutants (HAP) and is considered an area source of 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 (as amended). 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 *Definitions Regulation*, 06-096 C.M.R. ch. 100 (as amended). 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. Batch Mix Asphalt Plant #26

Lane operates Batch Mix Asphalt Plant #26 with a maximum hourly production rate of 420 tons of HMA and a 150 MMBtu/hr burner that is capable of firing distillate fuel with a maximum sulfur content of 0.5% by weight, specification waste oil with a maximum sulfur content of 0.7% by weight, propane, or natural gas. In the past it has been assumed that there is a linear relationship between the fuel required for a HMA plant burner and the plant output. Meaning, it is assumed that to operate at 100% throughput required the burner to fire at 100%, to operate at 75% throughput required the burner to fire at 75%, etc. This assumption allowed for a HMA 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 HMA plant is operated more efficiently than originally anticipated. This allows the burner to operate at a lower firing rate than would be expected for the HMA output. Since emission factors for HMA plants are based on tons of HMA produced, without the previously mentioned linear relationship between plant output and burner firing rate, a fuel limit on the HMA plant is not sufficient to limit the equipment's annual emissions.

Therefore, to ensure annual emissions are limited to less than major source thresholds, HMA throughput is limited instead of fuel consumption. Accordingly, the annual throughput of Batch Mix Asphalt Plant #26 shall not exceed 488,000 tons of HMA on a 12-month rolling total basis.

1. BPT Findings

The BPT emission limits for Batch Mix Asphalt Plant #26 when firing distillate fuel and specification waste oil were based on the following:

- PM/PM₁₀ – 0.03 gr/dscf and the use of a baghouse
- SO₂ – 0.088 lb/ton HMA based on AP-42, Table 11.1-5, dated 3/04
- NO_x – 0.12 lb/ton HMA based on AP-42, Table 11.1-5, dated 3/04
- CO – 0.4 lb/ton HMA on AP-42, Table 11.1-5, dated 3/04
- VOC – 0.036 lb/ton HMA based on AP-42, Table 11.1-6, dated 3/04
- Opacity – 06-096 C.M.R. ch. 101

The BPT emission limits for Batch Mix Asphalt Plant #26 when firing propane and natural gas were based on the following:

- PM/PM₁₀ – 0.03 gr/dscf and the use of a baghouse
- SO₂ – 0.0046 lb/ton HMA based on AP-42, Table 11.1-5, dated 3/04
- NO_x – 0.025 lb/ton HMA based on AP-42, Table 11.1-5, dated 3/04
- CO – 0.40 lb/ton HMA based on AP-42, Table 11.1-5, dated 3/04
- VOC – 0.0082 lb/ton HMA based on AP-42, Table 11.1-6, dated 3/04
- Opacity – 06-096 C.M.R. ch. 101

The BPT emission limits for Batch Mix Asphalt Plant #26 are the following:

<u>Unit</u>	<u>PM (lb/hr)</u>	<u>PM₁₀ (lb/hr)</u>	<u>SO₂ (lb/hr)</u>	<u>NO_x (lb/hr)</u>	<u>CO (lb/hr)</u>	<u>VOC (lb/hr)</u>
Batch mix asphalt plant #26 Distillate fuel/spec. waste oil	17.62	17.62	36.96	50.40	168.00	15.12
Batch mix asphalt plant #26 Propane/natural gas	17.62	17.62	1.93	10.50	168.00	3.44

Per 06-096 C.M.R. ch. 101, *Visible Emission Regulation*: Visible emissions from the Batch Mix Asphalt Plant #26 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. This is consistent with the 40 Code of Federal Regulations (C.F.R.) Part 60, Subpart I PM limit of 20% opacity.

General process emissions from equipment associated with Batch Mix Asphalt Plant #26 shall be controlled so as to prevent visible emissions in excess of 20% opacity on a six-minute block average basis except for no more than one six-minute block average in a one-hour period.

Batch Mix Asphalt Plant #26 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-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, beginning July 1, 2018, the distillate fuel purchased or otherwise obtained for use in Batch Mix Asphalt Plant #26 shall not exceed a sulfur content of 0.0015% by weight (15 ppm).

2. New Source Performance Standards

Batch Mix Asphalt Plant #26 was manufactured prior to 1973 and is therefore not subject to the federal Environmental Protection Agency's (EPA) New Source Performance Standards (NSPS) 40 C.F.R. Part 60, Subpart I *Standards of Performance for Hot Mix Asphalt Facilities* constructed or modified after

June 11, 1973. However, a performance test was successfully completed on June 23, 1978.

3. Control Equipment

PM emissions from Batch Mix Asphalt Plant #26 shall be controlled by a baghouse.

4. Periodic Monitoring

The performance of the Batch Mix Asphalt Plant #26 baghouse shall be constantly monitored by either one of the following at all times Batch Mix Asphalt Plant #26 is operating:

- a. PM detector – when the detector signals excessive PM concentrations in the exhaust stream, Lane shall take corrective action within 24 hours, or immediately if opacity exceeds 20%.
- b. Personnel with a current EPA Method 9 visible emissions certification – when the opacity exceeds 20%, the HMA plant is operating with insufficient control and corrective action shall be taken immediately.

Lane shall keep records of baghouse failures and baghouse maintenance.

Lane shall keep records of the type of fuel and the tons of asphalt produced using each fuel for Batch Mix Asphalt Plant #26, which shall be maintained for at least six years and made available to the Department upon request. Records shall also be kept documenting the quantity and analyzed test results of all specification waste oil fired in Batch Mix Asphalt Plant #26.

5. Contaminated Soils

Lane may process up to 10,000 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 Maine Solid Waste Management Rules, 06-096 C.M.R. ch. 409 (as amended). The material shall be handled in accordance with the requirements of the Bureau of Remediation and Waste Management.

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

When processing contaminated soils, Lane 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, Lane 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 Bureau of Remediation and Waste Management.

C. Rock Crushers

Lane currently operates three primary rock crushers. The first primary rock crusher, 1040GRPRI, is a portable unit with a rated capacity of 150 tons per hour and was manufactured and installed prior to 1973. The two other primary rock crushers, 4265ACPRI and 1260ACPRI, are both fixed units which were both manufactured prior to 1973 and have rated capacities of 800 and 400 tons per hour, respectively.

Lane also operates a secondary rock crusher and two tertiary rock crushers. The secondary rock crusher, H6000SVESEC, has a rated capacity of 540 tons per hour and was manufactured in 1998 and installed in 2005. The tertiary rock crushers, SANCH660 and TER54FH, have rated capacities of 500 and 200 tons per hour, respectively, and were manufactured and installed in 2016 and 1992, respectively.

1. BACT/BPT Findings

The regulated pollutant from the rock crushers is particulate matter emissions. To meet the requirements of BACT/BPT for control of particulate matter emissions from the rock crushers, Lane shall maintain water sprays on the rock crushers 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

Rock crushers H6000SVESEC, SANCH660, and TER54FH are subject to EPA New Source Performance Standards (NSPS) 40 C.F.R. Part 60, Subpart OOO for Nonmetallic Mineral Processing Plants manufactured after August 31, 1983, with capacities greater than 150 tons/hr for portable plants and greater than 25 tons/hr for non-portable plants based on the size and manufactured date of the crushers. The performance testing required for Subpart OOO was successfully completed on June 9, 2005 for H6000SVESEC, September 7, 2016 for SANCH660, and May 17, 2000 for TER54FH.

Rock crushers 4265ACPRI, 1260ACPRI, and 1040GRPRI have maximum throughput ratings greater than 150 tons/hr for portable plants and greater than 25 tons/hr for non-portable plants, but were each manufactured prior

to 1983. However, the Department has determined that due to the age of the crushers and the considerable impacts crusher equipment operates under, it is likely that the crushers went through a reconstruction or modification after August 31, 1983 and are therefore subject to EPA's New Source Performance Standards (NSPS) 40 C.F.R. Part 60, Subpart OOO. The performance testing required for Subpart OOO was successfully completed on June 2, 2004 for 4265ACPRI and 1260ACPRI, and June 15, 2004 for 1040GRPRI.

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

a. Monitoring Requirements:

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

b. Reporting and Recordkeeping Requirements:

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

D. CATD343 Generator and CAT Generator

Lane operates CATD343 Generator and CAT Generator to power pieces of equipment. CATD343 has a maximum capacity of 2.8 MMBtu/hr (approximately 287 kW), and CAT Generator has a maximum capacity of 2.1 MMBtu/hr (approximately 215 kW). CATD343 was manufactured prior to 1973, and the CAT Generator was manufactured in 1997. The fuel fired in CATD343 Generator and CAT Generator combined shall be limited to 30,000 gallons of distillate fuel with a maximum sulfur content not to exceed 15 ppm (0.0015% sulfur by weight) on a 12-month rolling total basis.

1. BPT Findings

The BPT emission limits for the CATD343 Generator and the CAT Generator were based on the following:

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

The BPT emission limits for the CATD343 and CAT Generators are the following:

<u>Unit</u>	<u>PM (lb/hr)</u>	<u>PM₁₀ (lb/hr)</u>	<u>SO₂ (lb/hr)</u>	<u>NO_x (lb/hr)</u>	<u>CO (lb/hr)</u>	<u>VOC (lb/hr)</u>
CATD343	0.34	0.34	0.01	12.35	2.66	0.98
CAT Generator	0.25	0.25	0.01	9.26	2.00	0.74

Visible emissions from the CATD343 Generator and the CAT Generator shall each not exceed 20% opacity on a six-minute block average basis, except for no more than two six-minute block averages in a three-hour period.

2. New Source Performance Standards

CATD343 and CAT Generator are both considered non-road engines, as opposed to stationary engines, since they are both portable and will be moved to various sites with the asphalt plant. Additionally, CATD343 and CAT Generator were both manufactured prior to April 1, 2006. Therefore, CATD343 and CAT Generator are not subject to New Source Performance Standards 40 C.F.R. Part 60, Subpart IIII, *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines*.

3. National Emission Standards for Hazardous Air Pollutants

CATD343 and CAT Generator are considered non-road engines, as opposed to stationary engines, since they are portable and will be moved to various sites with the asphalt plant. Therefore, CATD343 and CAT Generator are not subject to 40 C.F.R. Part 63, Subpart ZZZZ, *National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines*. 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.

E. HYCGO-200 Hot Oil Heater

The HYCGO-200 Hot Oil Heater has a maximum heat input capacity of 2.1 MMBtu/hr and is capable of firing distillate fuel with a maximum sulfur content of 0.5% by weight, propane, or natural gas. The HYCGO-200 Hot Oil Heater was manufactured and installed in 2008. The fuel fired in the HYCGO-200 Hot Oil Heater shall be limited to 4,200 MMBtu (equivalent to approximately 30,000 gallons of distillate fuel) on a 12-month rolling total basis. When converting fuel use to MMBtu, Lane shall use heating values of 0.14 MMBtu/gallon for distillate fuel, 0.00103 MMBtu/scf for natural gas, and 0.0905 MMBtu/gallon for propane.

1. BPT Findings

The BPT emission limits for the HYCGO-200 Hot Oil Heater when firing distillate fuel were based on the following:

- PM/PM₁₀ – 2 lb/1000 gal based on AP-42, Table 1.3-1, dated 5/10
- SO₂ – 0.5 lb/MMBtu based on firing distillate fuel with a maximum sulfur content of 0.5% by weight
- NO_x – 20 lb/1000 gal based on AP-42, Table 1.3-1, dated 5/10
- CO – 5 lb/1000 gal based on AP-42, Table 1.3-1, dated 5/10
- VOC – 0.34 lb/1000 gal based on AP-42, Table 1.3-3, dated 5/10
- Opacity – 06-096 C.M.R. ch. 115, BPT

The BPT emission limits for the HYCGO-200 Hot Oil Heater when firing propane were based on the following:

- PM/PM₁₀ – 0.2 lb/1000 gal based on AP-42, Table 1.5-1, dated 7/08
- SO₂ – 0.054 lb/1000 gal based on AP-42, Table 1.5-1, dated 7/08
- NO_x – 13.0 lb/1000 gal based on AP-42, Table 1.5-1, dated 7/08
- CO – 7.5 lb/1000 gal based on AP-42, Table 1.5-1, dated 7/08
- VOC – 1.0 lb/1000 gal based on AP-42, Table 1.5-1, dated 7/08
- Opacity – 06-096 C.M.R. ch. 115, BPT

The BPT emission limits for the HYCGO-200 Hot Oil Heater when firing natural gas were based on the following:

- PM/PM₁₀ – 1.9 lb/MMscf based on AP-42, Table 1.4-2, dated 7/98
- SO₂ – 0.6 lb/MMscf based on AP-42, Table 1.4-2, dated 7/98
- NO_x – 100 lb/MMscf based on AP-42, Table 1.4-1, dated 7/98
- CO – 84 lb/MMscf based on AP-42, Table 1.4-1, dated 7/98
- VOC – 5.5 lb/MMscf gal based on AP-42, Table 1.4-2, dated 7/98
- Opacity – 06-096 C.M.R. ch. 115, BPT

The BPT emission limits for the HYCGO-200 Hot Oil Heater are the following:

<u>Unit</u>	<u>PM (lb/hr)</u>	<u>PM₁₀ (lb/hr)</u>	<u>SO₂ (lb/hr)</u>	<u>NO_x (lb/hr)</u>	<u>CO (lb/hr)</u>	<u>VOC (lb/hr)</u>
HYCGO-200 Hot Oil Heater Distillate fuel	0.03	0.03	1.06	0.30	0.08	0.01
HYCGO-200 Hot Oil Heater Propane	0.005	0.005	0.001	0.30	0.17	0.02
HYCGO-200 Hot Oil Heater Natural gas	0.004	0.004	0.001	0.20	0.17	0.01

Visible emissions from the HYCGO-200 Hot Oil Heater when firing distillate fuel shall not exceed 20% opacity on a six-minute block average basis.

Visible emissions from the HYCGO-200 Hot Oil Heater when firing propane or natural gas shall not exceed 10% opacity on a six-minute block average basis.

The HYCGO-200 Hot Oil Heater 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-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, beginning July 1, 2018, the distillate

fuel purchased or otherwise obtained for use in the HYCGO-200 Hot Oil Heater shall not exceed a sulfur content of 0.0015% by weight (15 ppm).

2. Periodic Monitoring

Lane shall keep records of fuel use and receipts for the HYCGO-200 Hot Oil Heater which shall be converted to MMBtu monthly and on a 12-month rolling total using heating values of 0.14 MMBtu/gal for distillate fuel, 0.0905 MMBtu/gal for propane, and 0.00103 MMBtu/scf for natural gas. The records shall be maintained for at least six years and made available to the Department upon request.

3. New Source Performance Standards

The HYCGO-200 Hot Oil Heater does not heat water. It does not meet the definition of a "steam generating unit" and therefore is not subject to New Source Performance Standards (NSPS) 40 C.F.R. Part 60, Subpart Dc, *Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units*, for units greater than 10 MMBtu/hr manufactured after June 9, 1989.

4. National Emission Standards for Hazardous Air Pollutants

The HYCGO-200 Hot Oil Heater 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).

F. Cement Silos

Lane operates two cement silos, Cement Silo #1 and Cement Silo #2. Both cement silos are equipped with fabric filters for control of particulate matter emissions. Transfer operations have a small baghouse to control particulate matter during loading and unloading. Visible emissions from Cement Silos #1 and #2 are limited under 06-096 C.M.R. ch. 101, Section 2(B)(3)(c) to 10% opacity on a six-minute block average basis, except for no more than one six-minute block average in a one-hour period. Corrective action is required to be taken if emissions from any fabric filter exceed 5% opacity.

G. Fugitive Emissions

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. Compliance shall be determined by an aggregate of the individual 15-second opacity observations which exceed 20% in any one hour.

H. General Process Emissions

Visible emissions from any general process (including conveyor belts, transfer points, etc.) associated with an NSPS rock crusher shall not exceed 7% opacity based on the average of no less than five six-minute block averages.

Visible emissions from any other general process (non-NSPS crusher conveyor belts, bucket elevators, bagging operations, truck loading operations, etc.) shall not exceed 20% opacity on a six-minute block average basis except for no more than one six-minute block average in a one-hour period.

I. Annual Emissions

1. Total Annual Emissions

Lane shall be restricted to the following annual emissions, based on a 12-month rolling total. The tons per year limits were calculated based on 475,000 tons per year of HMA for Batch Mix Asphalt Plant #26, a limit of 30,000 gal per year of distillate fuel for the CATD343 and CAT Generators, and a heat input limit of 4,200 MMBtu/year for the HYCGO-200 Hot Oil Heater:

Total Licensed Annual Emissions for the Facility

Tons/year

(used to calculate the annual license fee)

	PM	PM₁₀	SO₂	NO_x	CO	VOC
Batch Mix Asphalt Plant #26	10.2	10.2	21.5	29.3	97.6	8.8
Generator CATD343 and CAT Generator	0.3	0.3	0.1	9.3	2.0	0.7
HYCGO-200 Hot Oil Heater	0.1	0.1	1.1	0.3	0.2	0.1
Total TPY	10.6	10.6	22.7	38.9	99.8	9.6

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 (as amended), 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 throughput 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 40 C.F.R. Part 98, *Mandatory Greenhouse Gas Reporting*; 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 shall be determined by the Department on a case-by case basis. In accordance with 06-096 C.M.R. ch. 115, an ambient air quality impact analysis is not required for a minor source if the total licensed annual emissions of any pollutant released do not exceed the following levels and there are no extenuating circumstances:

Pollutant	Tons/Year
PM ₁₀	25
SO ₂	50
NO _x	50
CO	250

The total licensed annual emissions for the facility are below the emission levels contained in the table above and there are no extenuating circumstances; therefore, an ambient air quality impact analysis is not required as part of this license.

ORDER

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

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

The Department hereby grants Air Emission License A-257-71-R-R/A, subject to the following conditions.

Severability. The invalidity or unenforceability of any provision, or part thereof, of this License 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 Chapter 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) **Batch Mix Asphalt Plant #26**

A. Fuel Use

1. Batch Mix Asphalt Plant #26 is licensed to fire distillate fuel with a maximum sulfur content of 0.5% by weight, specification waste oil with a maximum sulfur content of 0.7% by weight, natural gas, and propane. [06-096 C.M.R. ch. 115, BPT]
2. Beginning July 1, 2018, Lane shall not purchase or otherwise obtain distillate fuel with a maximum sulfur content that exceeds 0.0015% by weight (15 ppm) for use in Batch Mix Asphalt Plant #26. [06-096 C.M.R. ch. 115, BPT]
3. Compliance shall be demonstrated by fuel records from the supplier showing the type and percent sulfur of the fuel delivered (if applicable). [06-096 C.M.R. ch. 115, BPT]
4. Records shall be maintained documenting the quantity and analyzed test results of all specification waste oil fired in Batch Mix Asphalt Plant #26. [06-096 C.M.R. ch. 115, BPT and 06-096 C.M.R. ch. 860]

- B. The production rate of Batch Mix Asphalt Plant #26 shall not exceed 488,000 tons of HMA per year. Production records shall be kept on a monthly and 12-month rolling total basis and shall include how many tons of asphalt were produced using each fuel. [06-096 C.M.R. ch. 115, BPT]

- C. Emissions from Batch Mix Asphalt Plant #26 shall vent to a baghouse, and all components of Batch Mix Asphalt Plant #26 shall be maintained so as to prevent PM leaks. [06-096 C.M.R. ch. 115, BPT]

- D. The performance of the Batch Mix Asphalt Plant #26 baghouse shall be constantly monitored by either one of the following at all times the HMA plant is operating [06-096 C.M.R. ch. 115, BPT]:

1. PM detector – when the detector signals excessive PM concentrations in the exhaust stream, Lane shall take corrective action within 24 hours, or immediately if opacity exceeds 20%.

2. Personnel with a current EPA Method 9 visible emissions certification – when the opacity exceeds 20%, the HMA plant is operating with insufficient control and corrective action shall be taken immediately.
- E. To document maintenance of the baghouse, Lane shall keep maintenance records recording the date and location of all bag failures as well as all routine maintenance. The maintenance records shall be kept on-site at the HMA plant location. [06-096 C.M.R. ch. 115, BPT]
- F. Emissions from the Batch Mix Asphalt Plant #26 baghouse shall not exceed the following [06-096 C.M.R. ch. 115, BPT]:

Pollutant	grs/dscf	lb/hr	
		distillate fuel, spec. waste oil	propane, natural gas
PM	0.03	17.62	17.62
PM ₁₀	-	17.62	17.62
SO ₂	-	36.96	1.93
NO _x	-	50.40	10.50
CO	-	168.00	168.00
VOC	-	15.12	3.44

- G. Visible emissions from the Batch Mix Asphalt Plant #26 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. [06-096 C.M.R. ch. 101]
- H. General process emissions from equipment associated with Batch Mix Asphalt Plant #26 shall be controlled so as to prevent visible emissions in excess of 20% opacity on a six-minute block average basis except for no more than one six-minute block average in a one-hour period. [06-096 C.M.R. ch. 101]
- I. Lane may process up to 10,000 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 Bureau of Remediation and Waste Management. [06-096 C.M.R. ch. 115, BPT]
- J. Lane shall not process soils which are classified as hazardous waste or which have unknown contaminants. [06-096 C.M.R. ch. 115, BPT]

K. When processing contaminated soils, Lane 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, Lane 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 Bureau of Remediation and Waste Management. [06-096 C.M.R. ch. 115, BPT]

(17) **Rock Crushers**

A. Lane shall maintain spray nozzles for particulate control on rock crushers 4265ACPRI, 1260ACPRI, H6000SVESEC, SANCH660, 1040GRPRI, and TER54FH and operate them as necessary to limit visible emissions to no greater than 10% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 115, BACT/BPT and 06-096 C.M.R. ch. 101]

B. Lane shall maintain records detailing and quantifying the hours of operation on a daily basis for all of the primary, secondary and tertiary rock crushers. The operation records shall be kept on-site at the rock crushing location. [06-096 C.M.R. ch. 115, BPT]

C. Lane shall maintain records detailing the maintenance on particulate matter control equipment (including spray nozzles). For the months during which the rock crushers are operating, Lane shall perform monthly inspections of any water sprays to ensure water is flowing to the correct locations and initiate corrective action within 24 hours if water is found to not be flowing properly. Records of the date of each inspection and any corrective action required shall be included in the maintenance records. The maintenance records shall be kept on-site at the rock crushing location. [06-096 C.M.R. ch. 115, BACT/BPT and 40 C.F.R. § 60.674(b)]

D. Rock crushers 4265ACPRI, 1260ACPRI, H6000SVESEC, SANCH660, 1040GRPRI, and TER54FH are subject to 40 C.F.R. Part 60 Subparts A and OOO, and Lane shall comply with the notification and record keeping requirements of 40 C.F.R. §§ 60.676 and 60.7, except for 40 C.F.R. § 60.7(a)(2) per 40 C.F.R. § 60.676(h). [40 C.F.R. §§ 60.676(b), (f), and (i)]

(18) **CATD343 Generator and CAT Generator**

A. Fuel Use

1. CATD343 Generator and CAT Generator are licensed to fire distillate fuel with a maximum sulfur content not to exceed 15 ppm (0.0015% sulfur by weight). [06-096 C.M.R. ch. 115, BPT]
2. Total fuel use for CATD343 Generator and CAT Generator combined shall not exceed 30,000 gal/yr of distillate fuel on a 12-month rolling total basis. Compliance shall be demonstrated by fuel records from the supplier showing the quantity, type, and percent sulfur of the 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, BPT]

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

Unit	PM (lb/hr)	PM₁₀ (lb/hr)	SO₂ (lb/hr)	NO_x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
CATD343	0.34	0.34	0.01	12.35	2.66	0.98
CAT Generator	0.25	0.25	0.01	9.26	2.00	0.74

- C. Visible emissions from the CATD343 Generator and the CAT Generator shall each 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. [06-096 C.M.R. ch. 115, BPT]

(19) **HYCGO-200 Hot Oil Heater**

A. Fuel Use

1. The HYCGO-200 Hot Oil Heater is licensed to fire distillate fuel with a maximum sulfur content of 0.5% by weight, propane, and natural gas. [06-096 C.M.R. ch. 115, BPT]
2. Total fuel use for the HYCGO-200 Hot Oil Heater shall not exceed 4,200 MMBtu (equivalent to approximately 30,000 gal of distillate fuel) on a 12-month rolling total basis. [06-096 C.M.R. ch. 115, BPT]
3. Beginning July 1, 2018, Lane shall not purchase or otherwise obtain distillate fuel with a maximum sulfur content that exceeds 0.0015% by weight (15 ppm) for use in the HYCGO-200 Hot Oil Heater. [06-096 C.M.R. ch. 115, BPT]
4. Compliance shall be demonstrated by fuel records from the supplier showing the quantity, type, and percent sulfur of the fuel delivered (if applicable). Fuel use shall be converted to MMBtu on a monthly and 12-month rolling total basis using heating values of 0.14 MMBtu/gal for

distillate fuel, 0.0905 MMBtu/gal for propane, and 0.00103 MMBtu/scf for natural gas. [06-096 C.M.R. ch. 115, BPT]

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

<u>Unit</u>	<u>PM (lb/hr)</u>	<u>PM₁₀ (lb/hr)</u>	<u>SO₂ (lb/hr)</u>	<u>NO_x (lb/hr)</u>	<u>CO (lb/hr)</u>	<u>VOC (lb/hr)</u>
HYCGO-200 Hot Oil Heater Distillate fuel	0.03	0.03	1.06	0.30	0.08	0.01
HYCGO-200 Hot Oil Heater Propane	0.005	0.005	0.001	0.30	0.17	0.02
HYCGO-200 Hot Oil Heater Natural gas	0.004	0.004	0.001	0.20	0.17	0.01

C. Visible emissions

1. Visible emissions from the HYCGO-200 Hot Oil Heater when firing distillate fuel shall not exceed 20% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 115, BPT]
2. Visible emissions from the HYCGO-200 Hot Oil Heater when firing propane or natural gas shall not exceed 10% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 115, BPT]

(20) **Cement Silos**

Visible emissions from Cement Silos #1 and #2 are limited to 10% opacity on a six-minute block average basis, except for no more than one six-minute block average in a one-hour period. Corrective action is required to be taken if emissions from any fabric filter exceed 5% opacity. [06-096 C.M.R. ch. 101]

(21) **Fugitive Emissions**

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. Compliance shall be determined by an aggregate of the individual 15-second opacity observations which exceed 20% in any one hour. [06-096 C.M.R. ch. 101]

(22) **General Process Sources**

Visible emissions from any general process (including conveyor belts, transfer points, etc.) associated with an NSPS rock crusher shall not exceed 7% opacity based on the average of no less than five six-minute block averages. [40 C.F.R. 60, Subpart OOO]

Visible emissions from any other general process (non-NSPS crusher conveyor belts, bucket elevators, bagging operations, truck loading operations, etc.) shall not exceed 20% opacity on a six-minute block average basis except for no more than one six-minute block average in a one-hour period. [06-096 C.M.R. ch. 115, BPT]

(23) **Equipment Relocation**

A. Lane shall notify the Department, 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. [06-096 C.M.R. ch. 115, BPT]

(24) Lane 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 (as amended), the licensee shall annually report to the Department, in a format prescribed by the Department, the information necessary to accurately update the State's emission inventory. The emission statement shall be submitted as specified by the date in 06-096 C.M.R. ch. 137. [06-096 C.M.R. ch. 137]

The Lane Construction Corporation
Penobscot County
Hermon, Maine
A-257-71-R-R/A (SM)

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

- (26) Lane 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 19 DAY OF December, 2016.

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 complete renewal application, as determined 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 renewal of the license.]

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: 2/23/2015

Date of application acceptance: 2/23/2015

Date filed with the Board of Environmental Protection:

This Order prepared by Jonathan E. Rice, Bureau of Air Quality.

