Lane Construction Corporation
dba Sunrise Materials
Penobscot County
Orono, Maine
A-332-71-I-R/A (SM)

Departmental
Findings of Fact and Order
Air Emission License

After review of the air emission license renewal/amendment application, staff investigation reports, and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 M.R.S.A., Section 344 and Section 590, the Department finds the following facts:

I. REGISTRATION

A. Introduction

Lane Construction Corporation (Lane), located in Orono, Maine has applied to renew their Air Emission License, permitting the operation of their drum mix asphalt plant and rock crushing facility.

B. Emission Equipment

Drum Mix Asphalt Plant:

Equipment	Process Rate (tons/hour)	Design Capacity Firing Rate	Control Devices	Stack ID	Date of Manufacture
Rotary Dryer	170	62.56 MMBtu/hr, 447 gal/hr,#2 fuel & specification waste oil	Baghouse	47	1986

Rock Crushers:

Designation	Process Rate (tons/hour)	Control Device	Date of Manufacture
Primary	125	Spray Nozzles	1969
Secondary	125	Spray Nozzles	1969

Diesel Units

Source ID	Max. Capacity	Max. Firing Rate	Power Output
Diesel 375	2.0 MMBtu/hr	14.6 gal/hr diesel	285 hp
Genset 3412	3.84 MMBtu/hr	28.0 gal/hr diesel	548 hp
Night Generator*	0.1 MMBtu/hr	0.7 gal/hr diesel	14 hp

*Noted for inventory purposes only (<0.5 MMBtu/hr)

Fuel Burning Equipment

Equipment	Maximum Capacity	Fuel Type, %Sulfur	Maximum Firing Rate
Hot Oil Heater	1.5 MMBtu/hr	Diesel, 0.5%	11.0 gal/hr

Bold depicts equipment added to this license.

C. Application Classification

The renewal application for Lane includes the installation of new equipment, therefore the license is considered to be a renewal and modification of current licensed emissions units.

II. BEST PRACTICAL TREATMENT

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 Chapter 100 of the Bureau of Air Quality regulations.

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.

A. Drum Mix Asphalt Plant

The drum mix asphalt plant was manufactured in 1986 and is therefore subject to EPA New Source Performance Standards (NSPS) Subpart I for Hot Mix Asphalt Facilities manufactured after June 11, 1973.

The dryer fires #2 fuel oil and specification waste oil, with a sulfur content not to exceed 0.7%. Fuel use in the asphalt plant shall not exceed 965,000 gal/year based on a 12 month rolling total.

To meet the requirements of Best Practical Treatment (BPT) and NSPS for the control of particulate matter (PM) emissions from the asphalt plant dryer shall vent to a baghouse. Opacity from the drum mix asphalt plant baghouse is limited to no greater than 20% on a six (6) minute block average basis, except for no more than two (2) six (6) minute block averages in a continuous 3-hour period.

Based on the hot mix asphalt plant process rate, the average PM emission rate from the asphalt baghouse shall be limited to 0.03 grs/dscf (5.02 lb/hr).

The performance of the baghouse shall be constantly monitored by either one of the following at all times the dryer is operating:

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 hot mix asphalt plant is operating with insufficient control and corrective action shall be taken immediately.

General process emissions from the drum mix asphalt plant shall be controlled so as to prevent visible emissions in excess of 20% opacity on a six (6) minute block average basis except for no more than one (1) six (6) minute block average in a 1-hour period.

B. Rock Crushers

The primary and secondary rock crushers are portable units manufactured in 1969, each with a rated capacity of 125 tons/hr. EPA NSPS Subpart OOO for Nonmetallic Mineral Processing Plants applies to fixed rock crushers with capacities greater than 25 tons/hr and portable rock crushers with capacities greater than 150 tons/hr, constructed after August 31, 1983. Therefore, the primary and secondary rock crushers are not subject to NSPS Subparts A and OOO.

The regulated pollutant from the rock crushers is particulate emissions. To meet the requirements of BPT for control of PM emissions from the rock crushers, Lane shall operate and maintain water sprays on the rock crushers as needed. Visible emissions from the rock crushers shall be limited to no greater than 10% opacity on a six (6) minute block average basis.

C. Genset 3412 and Diesel 375

Genset 3412 has an approximate power rating of 548 HP, based on a heat input of 3.84 MMBtu/hr; Diesel 375 has an approximate power rating of 285 HP, based on a heat input of 2.0 MMBtu/hr, and all based on 35% efficiency. BPT for Genset 3412 and Diesel 375 is the following:

1. Annual fuel use in Genset 3412 and Diesel 375 is limited to 60,000 gallons.
2. MEDEP Chapter 106 regulates fuel sulfur content, however the use of 0.5% sulfur by weight fuel is BPT.
3. SO_2 emission data was based on fuel sulfur mass balance.
4. NO_X, CO and VOC emission limits are based upon AP-42 data dated 10/96 for diesel engines less than 600 horsepower.

5. PM and PM_{10} emission rates were based upon BPT of 0.12 #/MMBtu.
6. Opacity from Genset 3412 and Diesel 375 shall not exceed 30% on a six (6) minute block average basis, except for two (2) six (6) minute block averages in a 3-hour period.

D. Hot Oil Heater

The Hot Oil Heater has a heat input capacity of 1.5 MMBtu/hr. This boiler has a heat input less than 10 MMBtu/hr and is therefore not subject to New Source Performance Standards (NSPS) Subpart Dc.

A summary of BACT is detailed below:

1. MEDEP Chapter 106 regulates fuel sulfur content, however the use of 0.5% sulfur by weight fuel is BACT.
2. SO_2 emission data was based on fuel sulfur mass balance.
3. PM and PM_{10} emission rates were based upon BACT of 0.12 #/MMBtu.
4. NO_X emission rates were based upon BACT of 0.30 #/MMBtu.
5. CO and VOC emission rates were based upon AP-42 data dated 10/98 for boilers with a heat input less than 100 MMBtu/hr.
6. Opacity from the Hot Oil Heater shall not exceed 20% opacity on a six (6) minute block average basis, except for one (1) six (6) minute block average in a 3-hour period.

E. Stock Piles and Roadways

Visible emissions from a fugitive emission source shall not exceed an opacity of 20 percent, except for no more than five (5) minutes in any 1-hour period. Compliance shall be determined by an aggregate of the individual fifteen (15)-second opacity observations which exceed 20 percent in any one (1) hour.

F. Facility Emissions

- 965,000 gallons per year #2 fuel oil, 0.7% sulfur by weight maximum, in the batch mix asphalt plant.
- 60,000 gallons per year diesel fuel, 0.5% sulfur by weight maximum, in Genset 3412, Diesel 375 and Hot Oil Heater (combined).

(all based on a 12 month rolling total)

Total Annual Emissions for the Facility
(used to calculate the annual license fee)

Pollutant	Asphalt Plant	Diesels & Heater	Total Tons/year
PM	5.4	0.5	**5.9**
PM_{10}	5.4	0.5	**5.9**
SO_2	47.6	2.1	**49.7**
NO_X	10.1	18.3	**28.4**
CO	23.9	3.9	**27.8**
VOC	5.9	1.4	**7.3**

III. AMBIENT AIR QUALITY ANALYSIS

According to the Maine Regulations Chapter 115, the level of air quality analyses required for a renewal source shall be determined on a case-by-case basis. Based on the above total facility emissions, Lane is below the emissions level required for modeling and monitoring.

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-332-71-I-R/A subject to the following 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. [MEDEP Chapter 115]

(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. [MEDEP Chapter 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. [MEDEP Chapter 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. [MEDEP Chapter 115]

(5) The licensee shall pay the annual air emission license fee to the Department, calculated pursuant to Title 38 M.R.S.A. § 353. [MEDEP Chapter 115]

(6) The license does not convey any property rights of any sort, or any exclusive privilege. [MEDEP Chapter 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. [MEDEP Chapter 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. [MEDEP Chapter 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. [MEDEP Chapter 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. [MEDEP Chapter 115]

(11) In accordance with the Department's air emission compliance test protocol and 40 CFR 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 CFR 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.

[MEDEP Chapter 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 CFR 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.

[MEDEP Chapter 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. [MEDEP Chapter 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 emission 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. [MEDEP Chapter 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. [MEDEP Chapter 115]

(16) **Drum Mix Asphalt Plant**

A. Emissions from the drum mix asphalt plant shall vent to a baghouse, and all components of the asphalt plant shall be maintained so as to prevent PM leaks. [MEDEP Chapter 115, BPT]

B. The performance of the baghouse shall be constantly monitored by either one of the following at all times the asphalt plant is operating. [MEDEP Chapter 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 asphalt plant is operating with insufficient control and corrective action shall be taken immediately.

C. To document maintenance of the baghouse, the licensee shall keep a maintenance log recording the date and location of all bag failures as well as all routine maintenance. The maintenance log shall be kept on-site at the asphalt plant location. [MEDEP Chapter 115, BPT]

D. Opacity from the baghouse is limited to no greater than 20% on a six (6) minute block average basis, except for no more than two (2) six (6) minute block averages in a continuous 3-hour period. [MEDEP Chapter 101]

E. General process emissions from the drum mix asphalt plant shall be controlled so as to prevent visible emissions in excess of 20% opacity on a six (6) minute block average basis except for no more than one (1) six (6) minute block average in a 1-hour period. [MEDEP Chapter 101]

F. Fuel use records and receipts (showing the quantity and percent sulfur of the fuel) for the drum mix asphalt plant shall be maintained for at least six years and made available to the Department upon request. A log shall also be maintained recording the quantity and analyzed test results of all specification waste oil in the dryer. [MEDEP Chapter 115, BPT]

G. Lane shall be limited to the use of 965,000 gal/year of #2 fuel oil and specification waste oil (combined) on a 12-month rolling total, with a sulfur content not to exceed 0.7% in the drum mix asphalt plant. Emissions from the baghouse shall not exceed the following [MEDEP Chapter 115, BPT]:

Pollutant	grs/dscf	lb/hr
PM	0.03	5.02
PM_{10}	-	5.02
SO_2	-	44.10
NO_X	-	9.35
CO	-	22.10
VOC	-	5.44

(17) The Hot Mix Asphalt Plant is subject to 40 CFR Part 60 Subparts A, and I and Lane shall comply with the notification and record keeping requirements of 40 CFR Part 60.7. [40 CFR Part 60 Subpart I]

(18) **Rock Crushers**

A. Lane shall install and maintain spray nozzles for particulate control on the primary and secondary rock crushers and operate them as necessary to limit visible emissions to no greater than 10% opacity on a six (6) minute block average basis. [MEDEP Chapters 115 (BPT) and 101]

B. Lane shall maintain a log detailing the maintenance on the water spray nozzles. The maintenance log shall be kept on-site at the rock crushing location. [MEDEP Chapter 115, BPT]

C. Lane shall maintain a log detailing and quantifying the hours of operation on a daily basis for the primary and secondary rock crushers. The operation log shall be kept on-site at the rock crushing location. [MEDEP Chapter 115, BPT]

D. The crushers shall not be attached or clamped via cable, chain, turnbuckle, bolt, or other means (except electrical connections) to any anchor, slab, or structure (including bedrock) that must be removed prior to transportation. [MEDEP Chapter 115, BPT]

(19) **Genset 3412 and Diesel 375**

A. Combined fuel use in Genset 3412, Diesel 375 and the Hot Oil Heater shall not exceed 60,000 gal/year of diesel fuel (12 month rolling total), with a sulfur content not to exceed 0.5% by weight. Fuel use records and receipts (showing the quantity and percent sulfur of the fuel) for the diesel engine and Hot Oil Heater shall be maintained to demonstrate compliance.
[MEDEP Chapter 115, BPT]

B. Emissions from Genset 3412 shall be limited to the following [MEDEP Chapter 115, BPT]:

Pollutant	Lb/MMBtu	lb/hr
PM	0.12	0.46
PM_{10}	n/a	0.46
SO_2	n/a	1.96
NO_x	n/a	16.9
CO	n/a	3.65
VOC	n/a	1.34

C. Emissions from Diesel 375 shall be limited to the following [MEDEP Chapter 115, BPT]:

Pollutant	lb/hr
PM	0.24
PM_{10}	0.24
SO_2	1.02
NO_x	8.82
CO	1.90
VOC	0.70

D. Visible emissions from Diesel 375 shall not exceed 30% on a six (6) minute block average basis, except for two (2) six (6) minute block averages in a 3-hour period.
[MEDEP Chapter 101]

(20) **Hot Oil Heater**

A. Emissions from the Hot Oil Heater shall be limited to the following [MEDEP Chapter 115, BACT]:

Pollutant	lb/hr
PM	0.15
PM_{10}	0.15
SO_2	0.76
NO_x	0.60
CO	0.05
VOC	0.01

B. Visible emissions from the Hot Oiler Heater shall not exceed 20 percent on a six (6) minute block average basis, except for no more than one (1) six (6) minute block average in a 3-hour period.
[MEDEP Chapter 101]

C. The fuel type and fuel limit for the Hot Oil Heater is detailed in Condition 19(A).
[MEDEP Chapter 115, BACT]

(21) **Stockpiles and Roadways**

Visible emissions from a fugitive emission source shall not exceed an opacity of 20 percent, except for no more than five (5) minutes in any 1-hour period. Compliance shall be determined by an aggregate of the individual fifteen (15)-second opacity observations which exceed 20 percent in any one (1) hour. [MEDEP Chapter 101]

(22) **Equipment Relocation** [MEDEP Chapter 115, BPT]

A. Lane shall notify the Bureau of Air Quality, by a written notification at least 10 days in advance, prior to relocation of any equipment carried on this license. The notification shall be sent to:

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 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 will be made to the respective county commissioners.

(23) Lane shall keep a copy of this Order on site, and have the operator(s) be familiar with the terms of this Order.
[MEDEP Chapter 115, BPT]

(24) 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 (Title 38 MRSA §605-C).

(25) **Annual Emission Statement**

In accordance with MEDEP Chapter 137, the licensee shall annually report to the Department the information necessary to accurately update the State's emission inventory by means of:

1) A computer program and accompanying instructions supplied by the Department;

or

2) A written emission statement containing the information required in MEDEP Chapter 137.

Reports and questions should be directed to:

Attn: Criteria Emission Inventory Coordinator
Maine DEP
Bureau of Air Quality
17 State House Station
Augusta, ME 04333-0017

Phone: (207) 287-2437

The emission statement must be submitted by September 1 or as otherwise specified in Chapter 137.

(26) **Payment of Fees**

Lane shall pay the annual air emission license fee within 30 days of **June 30th** of each year. Pursuant to 38 MRSA §353-A, failure to pay this annual fee in the stated timeframe is sufficient grounds for revocation of the license under 38 MRSA §341-D, subsection 3. [38 MRSA §353-A]

DONE AND DATED IN AUGUSTA, MAINE THIS DAY OF 2004.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY:_____
DAWN R. GALLAGHER, COMMISSIONER

The term of this license shall be five (5) years from the signature date above.

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: December 18, 2003
Date of application acceptance: January 5, 2004

Date filed with the Board of Environmental Protection: _____
This order prepared by Mark E. Roberts, Bureau of Air Quality