

# STATE OF MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION 17 STATE HOUSE STATION AUGUSTA, MAINE 04333-0017

#### **DEPARTMENT ORDER**

Eurovia Atlantic Coast LLC Penobscot County Hermon, Maine A-257-71-U-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 (Department) finds the following facts:

#### I. REGISTRATION

#### A. Introduction

The Lane Construction Corporation was issued Air Emission License A-257-71-R-R/A on December 19, 2016, for the operation of emission sources associated with their hot mix asphalt plant and crushed stone and gravel facility. The license was subsequently amended on February 2, 2017, (A-257-71-S-M), and the license was transferred to Eurovia Atlantic Coast LLC (Eurovia) on April 18, 2019 (A-257-71-T-T).

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

Eurovia has requested an amendment to their license in order to make the following changes:

- 1. Add five (5) heated asphalt storage tanks;
- 2. Add three (3) hot oil heaters (HOHs);
- 3. Lower the asphalt production limit for Batch Mix Asphalt Plant #26 from 486,000 ton/year to 444,000 ton/year; and
- 4. Remove all crushers and associated engines from this license.

In addition, in March 2019, the Department updated the standards in *Visible Emissions Regulation*, 06-096 C.M.R. ch. 101. The new standards went into effect on January 1, 2020. This amendment updates all visible emission limits to the currently applicable standards.

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# B. Emission Equipment

The following existing emission unit is addressed in this air emission license amendment:

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# **Asphalt Plant**

Equipment	Process Rate (tons/hour)	Max. Capacity (MMBtu/hr)	Fuel Type, % sulfur	Firing Rate	Control Device	Date of Manuf.
Batch Mix			Distillate Fuel, 0.0015% Spec. waste oil, 0.7%	1,071.4 gal/hr		Plant:
Asphalt	420	150	Propane, negl.	1,657.5 gal/hr	Baghouse	Pre-1973 <b>Burner:</b>
Plant #26			Natural Gas, negl.	145,631 scf/hr		1998

The following new emission units are addressed in this air emission license amendment:

# **Heating Equipment**

Equipment	Max. Capacity (MMBtu/hr)	Maximum Firing Rate	Fuel Type, % sulfur	Date of Manuf.	Stack #
Terminal HOH #1	9.9*	9,611 scf/hr	Natural Gas, negl.	2020	3
Terminal HOH #2	9.9*	9,611 scf/hr	Natural Gas, negl.	2020	4
Terminal HOH #3	9.9*	9,611 scf/hr	Natural Gas, negl.	2020	5

<sup>\*</sup> The capacity listed represents an upper limit. Eurovia may install equipment which is smaller.

# **Asphalt Storage Tanks**

Equipment	Capacity (gallons)	Product Stored	Roof Type	Storage Temperature	Date Installed
Tank #1	2,350,000			275 – 310 °F	2020
Tank #2	2,350,000			275 – 310 °F	2020
Tank #3	2,350,000	Asphalt	Fixed	275 – 310 °F	2020
Tank #4	60,000			330 °F	2020
Tank #5	60,000			330 °F	2020

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The following emission units have been transferred to air emission license A-449 and are removed from the facility:

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### **Rock Crushers**

		<b>Process Rate</b>	Date of	
Designation	Powered	(tons/hour)	Manufacture	Control Device
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

#### **Generator Units**

Unit ID	Max. Capacity (MMBtu/hr)	Max. Firing Rate (gal/hr)	Fuel Type, % S	Date of Manuf.
CAT Gen.	2.1	14.9	distillate fuel, 0.0015%	1997
JD 6466*	0.45	3.2	distillate fuel, 0.0015%	1980

<sup>\*</sup>Insignificant activity. Listed for completeness only.

The following emission units have been sold and are <u>removed</u> from the facility:

#### **Rock Crushers**

		<b>Process Rate</b>	Date of	
Designation	Powered	(tons/hour)	Manufacture	<b>Control Device</b>
1040GRPRI	Commercial	150	Pre-1973	Spray Nozzles
TER54FH	Commercial	200	1992	Spray Nozzles

### **Generator Units**

	Max. Capacity	Max. Firing Rate		Date of
Unit ID	(MMBtu/hr)	(gal/hr)	Fuel Type, % S	Manuf.
CATD343	2.8	20.4	distillate fuel, 0.0015%	Pre-1973

In addition to the equipment listed above, Eurovia operates two cement silos, six hot mix asphalt silos, and an existing hot oil heater (HYCGO-200). That equipment is not affected by this air emission license amendment.

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#### C. Definitions

<u>Continuously</u> means equally spaced data points with at least one valid data point in each successive 15-minute period. A minimum of three valid 15-minute periods constitutes a valid hour. This definition is used with respect to operation of monitors required by this license.

#### <u>Distillate Fuel</u> 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.

<u>Specification Waste Oil</u> means a petroleum-based oil which, through use or handling, has become unsuitable for its original purpose due to the presence of impurities or loss of original properties, and meets all of the following requirements:

- · It has sufficient liquid content to be free flowing;
- · It meets all of the constituent and property standards as specified in *Waste Oil Management Rules*, 06-096 C.M.R. ch. 860;
- · It does not otherwise exhibit hazardous waste characteristics; and
- · It has not been mixed with a hazardous waste.

#### D. Application Classification

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

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. The emission increases are determined by subtracting the current licensed annual emissions preceding the modification from the maximum future licensed annual emissions, as follows:

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	<b>Current License</b>	<b>Future License</b>	Net Change	Significant
Pollutant	(ton/year)	(ton/year)	(ton/year)	<b>Emission Levels</b>
PM	10.6	16.0	+5.4	100
$PM_{10}$	10.6	16.0	+5.4	100
$SO_2$	25.3	19.5	-5.8	100
$NO_x$	39.6	40.3	+0.7	100
CO	99.8	99.9	+0.1	100
VOC	9.6	18.7	+9.1	50

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

#### E. Facility Classification

With the annual production limit on the asphalt batch plant and the annual emission limit for the asphalt storage tanks, the facility is licensed as follows:

- · As a synthetic minor source of air emissions, because Eurovia 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.

Emissions of carbon monoxide (CO) are licensed above 80% of the major source threshold. Therefore, this facility is classified as an "80% Synthetic Minor" for the purpose of determining the minimum required compliance inspection frequency in accordance with Maine's Compliance Monitoring Strategy.

#### II. BEST PRACTICAL TREATMENT (BPT)

### 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 *Definitions Regulation*, 06-096 C.M.R. ch. 100. BACT is a top-down approach to selecting air emission controls considering economic, environmental, and energy impacts.

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#### B. Batch Mix Asphalt Plant #26

Batch Mix Asphalt Plant #26 was given a production limit of 486,000 tons of hot mix asphalt (HMA) per year on a 12-month rolling total basis in air emission license A-257-71-S-M (dated February 2, 2017). As part of this minor modification, Eurovia has requested to decrease this limit to 444,000 tons of HMA per year on a 12-month rolling total basis. This change will not affect the BPT emission limits established in air emission license A-257-71-R-R/A (dated December 19, 2016).

#### C. Asphalt Storage Tanks

Eurovia proposes to install five heated asphalt storage tanks. The three larger tanks (Tanks #1, #2, and #3) will be used to store asphalt as received by the supplier. The two smaller tanks (Tanks #4 and #5) will be used to store asphalt which has had a polymer added per Maine Department of Transportation (DOT) specifications prior to use on-site or at other Eurovia hot mix asphalt facilities. All five tanks are proposed to be fixed roof tanks which are fully insulated, including the roofs.

Tanks #1, #2, and #3 will each have a storage capacity of 2,350,000 gallons and a throughput of 3,500,000 gallons per year (10.5 million gallons per year of throughput for all three tanks combined) on a 12-month rolling total basis. All asphalt which comes into the facility will be received into these tanks. Eurovia anticipates taking delivery of asphalt in winter months and storing it in these tanks for use throughout the summer months. Eurovia plans to dispense asphalt out of only one tank at a time. This tank will be held at approximately 310 °F to maintain the viscosity needed for distribution. To save energy, the other two tanks will be held at a lower temperature (~275 °F). Emissions from these tanks were estimated conservatively high by assuming all tanks were held at the higher temperature throughout the year.

Tanks #4 and #5 will each have a storage capacity of 60,000 gallons and a throughput of 2,625,000 gallons per year (5.25 million gallons per year of throughput for both tanks combined) on a 12-month rolling total basis. These tanks will be used to store and distribute asphalt which has been blended with polymer to DOT specifications. Only a portion of the asphalt received by the facility will be distributed through these tanks. Therefore, they will be limited to a throughput half that of Tanks #1, #2, and #3. Tanks #4 and #5 will be held at approximately 330 °F.

#### 1. New Source Performance Standards (NSPS): 40 C.F.R. Part 60, Subpart Kb

Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984, 40 C.F.R. Part 60, Subpart Kb, applies to tanks which store volatile organic liquids which are greater than 151 cubic meters

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(~40,000 gallons) and store a product with a true vapor pressure greater than 3.5 kilopascals (kPa).

No reliable data exists on the true vapor pressure of asphalt although it is generally assumed to be less than #6 fuel oil. Therefore, as has been done throughout this license, data for #6 fuel oil was used as a conservative surrogate. The following equation (1-25) from EPA's AP-42, Fifth Edition, Volume 1, Chapter 7, dated 3/2020 was used to determine true vapor pressure at various temperatures:

$$P_{VA} = \exp \left[ A - \left( \frac{B}{T_{LA}} \right) \right]$$

Where:

exp = exponential function

 $P_{VA}$  = true vapor pressure (psia)

 $T_{LA}$  = liquid surface temperature (°R)

A = 10.781 (vapor pressure constant for #6 fuel oil)

B = 8.933 (vapor pressure constant for #6 fuel oil)

Based on this analysis, the product stored by Eurovia is assumed to have a true vapor pressure greater than 3.5 kPa at temperatures above 320 °F. Because Tanks #1, #2, and #3 will be operated at 310 °F or below, these tanks are not considered subject to 40 C.F.R. Part 60, Subpart Kb. Eurovia shall continuously monitor and record the temperature in each tank to demonstrate that temperatures of products stored in Tanks #1, #2, and #3 do not exceed 310 °F.

Tanks #4 and #5 may operate at temperatures above 320 °F. Therefore, these tanks are considered subject to 40 C.F.R. Part 60, Subpart Kb. Eurovia shall comply with all requirements of 40 C.F.R. Part 60, Subpart Kb applicable to Tanks #4 and #5 including, but not limited to, the following:

#### a. Notifications

- (1) Eurovia shall submit notification to EPA and the Department of the date construction commenced postmarked no later than 30 days after such date. [40 C.F.R. § 60.7(a)(1)]
- (2) Eurovia shall submit notification to EPA and the Department of the actual date of initial startup postmarked no later than 15 days after such date. [40 C.F.R. § 60.7(a)(3)]

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### b. Reporting and Recordkeeping

- (1) Eurovia shall maintain readily accessible records showing the dimensions of each storage vessel (Tanks #4 and #5) and an analysis showing the capacity of each storage vessel. These records shall be kept for the life of the facility. [40 C.F.R. §§ 60.116b(a) & (b)]
- (2) Eurovia shall maintain the following records for each storage vessel (Tanks #4 and #5):
  - (i) Product stored;
  - (ii) Period of storage (i.e., note any time when the tank is empty); and
  - (iii) Maximum true vapor pressure of the product stored.
  - [40 C.F.R. § 60.116b(c)]

The maximum true vapor pressure is calculated based on the highest calendarmonth average of the storage temperature (i.e. by taking the average product temperature over the course of a calendar month). [40 C.F.R. § 60.116b(e)(1)]

(3) Eurovia shall notify DEP and EPA within 30 days if the maximum true vapor pressure of the liquid exceeds 5.2 kPa (expected at 348 °F). [40 C.F.R. § 60.116b(d)]

#### 2. BACT Findings

The main pollutant of concern from petroleum storage facilities is volatile organic compounds (VOC). Emissions from fixed roof tanks are caused by changes in temperature, pressure, and liquid level. When the tank is filled, the VOC-laden vapor above the liquid is forced out of the tank as the space is taken up by the liquid product. These emissions from actively filling the tank are known as "working losses." Working losses occur relatively infrequently, i.e., only when the tank is actively being filled. However, working losses may result in a large volume of VOC-laden air being exhausted from the tank over a relatively short period of time.

Fixed roof tanks can also have emissions even when no product is being added or removed. These emissions, known as "breathing losses" or "standing losses," occur when there is an increase in temperature inside the tank. The product and/or vapor space expand forcing VOC-laden air out of the tank. When the interior of the tank cools, the opposite occurs, and fresh air is drawn into the tank as the product and air inside the tank contracts. Breathing losses result in a much smaller flowrate of vapor from the tank, but the emissions occur more frequently (daily).

Fixed roof tanks that are fully insulated (such as Tanks #1 - #5) are less likely to have breathing losses driven by diurnal ambient temperature cycles. If the product in a fully-

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insulated tank is maintained at a constant temperature, the vapor in the tank stays a constant volume, and breathing losses are essentially eliminated.

Control strategies considered for control of VOC from Tanks #1 - #5 include floating roofs, a Vapor Recovery Unit (VRU), and a Vapor Combustion Unit (VCU).

#### Floating Roofs

Emissions from petroleum storage tanks can be minimized by installing a floating roof that sits on the surface of the product stored. With all types of floating roof tanks, the roof rises and falls with the liquid level in the tank. They are equipped with a flexible rim seal system, which is attached to the deck perimeter and contacts the tank wall. The purpose of the floating roof and rim seal system is to reduce evaporative loss of the stored liquid. Some annular space remains between the seal system and the tank wall. The seal system slides against the tank wall as the roof is raised and lowered. The floating deck is also equipped with deck fittings that penetrate the deck and serve operational functions.

Floating roofs are not typically used for products such as asphalt. The roof has the potential to become compromised if the tank is allowed to cool and the product solidifies (e.g., shutting off the tank heaters in the winter). The reheating process could cause one side of the tank to become liquid before the other causing the roof to tilt and possibly submerge. Additionally, asphalt tanks may use mixers to circulate product. Floating roofs are not designed to accommodate such systems. A review of EPA's RACT/BACT/LAER Clearinghouse found no instances where floating roofs were required for tanks storing asphalt. Therefore, the use of floating roofs for control of VOC from Tanks #1 - #5 is determined to not be technically feasible.

#### Vapor Recovery Unit (VRU) and Vapor Combustion Unit (VCU)

Vapor recovery units (VRUs) route VOC laden vapors to a device which separates the VOC from the exhaust stream. The most cost-effective system collects the tank vents and draws them through a mist eliminator followed by a non-regenerative carbon adsorber.

Mist eliminators, also known as "demisters" or "entrainment separators," are designed to remove mist droplets from an air stream. Unlike condensers, mist eliminators do not involve a phase change. The product entrained in the air stream is already in a liquid form, but the droplets are so small as to become airborne.

Mist eliminators are relatively simple devices that involve passing the exhaust stream past or through some type of filter system (e.g., wire mesh, filters, baffles). They remove the liquid droplets from the air stream by three methods: initial impaction (forcing gases around a tight bend), direct interception (impacting the filter surface), and Brownian diffusion (causing chaotic and irregular movement of the particle such that it impacts other particles).

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Mist eliminators have almost no control efficiency for more volatile products (e.g., gasoline) as they do not reduce emissions of product already in the gaseous phase. They do reduce emissions of aerosols or droplets of less volatile products (e.g. asphalt) at temperatures below the product's boiling point.

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Carbon adsorption is the process of passing the VOC-laden air stream through a bed of adsorbent material, typically activated carbon, although other media may be suitable for certain applications. Hydrocarbons attach to the surfaces of the activated carbon particles. Carbon adsorbers are also referred to as "carbon beds."

With non-regenerative carbon adsorption, the adsorbent eventually becomes saturated and loses its effectiveness. The adsorbent needs to be periodically replaced and the spent material disposed of. Due to the cost to replace the spent media and the creation of an additional waste stream, non-regenerative carbon adsorption is best suited to low volume and/or low concentration streams (e.g., asphalt).

A similar VRU system at another facility cost approximately \$400,000 to install with expected annual operating costs of \$20,000/year. Amortizing the capital costs over five years, the cost of control is approximately \$100,000/year. The reduction efficiency of this system is unknown. However, even assuming a control efficiency of 100%, the cost of control is \$12,500/ton. Therefore, use of a VRU for control of VOC emissions from Tanks #1 - #5 is determined to not be economically feasible.

Similar to a VRU, a Vapor Combustion Unit (VCU) would collect emissions from tank vents and route them to a control device. Instead of trying to recover the VOC components, they are destroyed by burning, typically through use of a thermal oxidizer or regenerative thermal oxidizer (RTO). The cost to install and operate a VCU would be similar to, if not greater than, the cost of a VRU. Therefore, use of a VCU for control of VOC emissions from Tanks #1 - #5 is determined to not be economically feasible.

The Department finds the following to be BACT for control of VOC from Tanks #1 - #5:

- Tanks #1 #5 shall each be fully insulated, including the tank roofs;
- Eurovia shall not exceed a throughput limit of 10.5 million gallons per year for Tanks #1, #2, and #3 combined (based on a 12-month rolling total);
- Eurovia shall not exceed a throughput limit of 5.25 million gallons per year for Tanks #4 and #5 combined (based on a 12-month rolling total); and
- Eurovia shall not exceed a facility-wide VOC limit of 18.7 tpy (based on a 12-month rolling total).

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#### 3. Compliance Demonstration

Compliance with the tank throughput limits shall be demonstrated through monthly records of the gallons of asphalt received by the facility (combined throughput for Tanks #1, #2, and #3) and the gallons of asphalt sent to Tanks #4 and #5 (combined throughput for Tanks #4 and #5).

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Compliance with the facility-wide VOC emission limit shall be demonstrated by calculating actual emissions at least once annually as required by *Emission Statements*, 06-096 C.M.R. ch. 137. However, Eurovia shall maintain records necessary to calculate annual VOC emissions for any consecutive 12-month period and shall provide a demonstration of compliance with the facility-wide VOC emission limit for any consecutive 12-month period upon request by the Department.

Determination of actual VOC emissions to demonstrate compliance with the facility-wide limit shall be calculated as follows with all emissions summed to provide an annual total:

#### a. Heated Bulk Storage Tanks

Until site-specific emissions data is available, VOC emissions from Tanks #1 - #5 shall be calculated in accordance with the methodology contained in the most current version of EPA's Compilation of Air Emission Factors (AP-42), Fifth Edition, Volume 1, Chapter 7, *Liquid Storage Tanks*.<sup>1</sup>

Site-specific emissions data for working losses (i.e., emissions during tank filling) shall be determined through performance testing conducted annually with no more than 14 months between tests, unless or until the Department notifies Eurovia in writing that testing is no longer required. Initial testing shall be performed within 180 days of startup (i.e., within 180 days of first taking delivery of asphalt). After three consecutive years of performance testing, Eurovia may request the Department reevaluate the testing frequency.

Testing shall be performed on two representative tanks, one from Tanks #1 - #3 and one from Tanks #4 - #5. Test methods and procedures shall be worked out with the Department in the required test protocol.

#### b. Tank Maintenance

Emissions from tank maintenance (both planned and unplanned), including tank degassing and cleaning, shall be included when calculating the facility's annual facility-wide VOC emissions. Emissions from these operations shall be calculated

<sup>&</sup>lt;sup>1</sup> https://www3.epa.gov/ttn/chief/ap42/ch07/index.html

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in accordance with the methodology contained in the most current version of AP-42, Fifth Edition, Volume 1, Chapter 7.

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# c. Facility Piping

Operation of the facility's equipment will result in fugitive emissions of VOC from the plant's piping. Eurovia shall keep an updated inventory of system components (e.g., valves, pump seals, connectors, flanges, etc.) and the number of each, and calculate fugitive emissions using emission factors obtained from EPA's *Protocol for Equipment Leak Emission Estimates*, EPA-453/R-95-017, dated November 1995.<sup>2</sup>

#### d. Batch Mix Plant #26

VOC emissions from Batch Mix Plant #26 shall be estimated based on the tons of HMA produced and an emission factor of 0.0082 lb/ton HMA based on AP-42 Table 11.1-6 dated 3/04.

#### e. Combustion Equipment

Other combustion equipment, including Terminal HOHs #1, #2, and #3, emit small amounts of VOC due to incomplete combustion. VOC emissions from this equipment shall be estimated based on the amount of fuel fired and the equipment's licensed emission limits.

#### 4. Recordkeeping Requirements

Eurovia shall keep the following records:

- a. Monthly throughput for Tanks #1, #2, and #3 (combined);
- b. Monthly throughput for Tanks #4 and #5 (combined);
- c. The quantity (on a monthly basis) of any product(s) blended with the asphalt on site and subsequently stored in Tanks #1 #5;
- d. Safety Data Sheets (SDS) for any product(s) blended with the asphalt on site and subsequently stored in Tanks #1 #5;
- e. Equipment and product information necessary to calculate emissions from the heated bulk storage tanks in accordance with AP-42, Chapter 7;
- f. Process and product information necessary to calculate emissions from tank maintenance operations in accordance with AP-42, Chapter 7;
- g. Equipment and product information necessary to calculate emissions from facility piping in accordance with EPA's *Protocol for Equipment Leak Emission Estimates*;
- h. Tons of HMA produced in Batch Mix Plant #26;

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<sup>&</sup>lt;sup>2</sup> https://www3.epa.gov/ttnchie1/efdocs/equiplks.pdf

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i. Fuel use on a monthly basis for Terminal HOHs #1, #2, and #3 (either individually or combined); and

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j. Logs of inspections of each tank documenting any detected leaks, holes, tears, or other openings, and the corrective action taken including the date of the corrective action. If an inspection is not performed because the tank is empty, this should also be noted in the log.

#### 5. Monitoring

Eurovia shall continuously monitor and record the hourly average liquid temperature for product stored in each heated bulk storage tank (Tanks #1 - #5) through use of a thermocouple installed through the tank wall.

#### D. Terminal HOHs #1, #2, and #3

Eurovia proposes to install three new hot oil heaters (HOHs) denoted as Terminal HOHs #1, #2, and #3. The HOHs will provide heat to the facility's asphalt storage tanks. The natural gas-fired burners in the HOHs heat a thermal oil which is circulated around the shell of each asphalt storage tank to heat the asphalt. The thermal oil can also be sent to a steam generator that heats water to create steam to be used to heat the shells of railcars or trucks being used to transport the asphalt. However, the HOH burners do not directly heat water.

The exact size of Terminal HOHs #1, #2, and #3 will be determined at the time of purchase. However, the maximum heat input of each unit shall not exceed 9.9 MMBtu/hr. The units will each fire natural gas and exhaust through their own independent stack.

### 1. BACT Findings

Following is a BACT analysis for control of emissions from Terminal HOHs #1, #2, and #3.

#### a. Particulate Matter (PM, PM<sub>10</sub>)

Particulate matter emissions from fuel combustion are formed from incomplete combustion of fuel and non-combustible material in the fuel. Emissions of particulate matter from new natural gas-fired equipment are generally very low. Given the size of the units and the minimal particulate matter emissions from the burning of natural gas, add-on emission control equipment for control of particulate matter from Terminal HOHs #1, #2, and #3 is not economically feasible.

The Department finds the firing of natural gas, use of an efficient burner combustion technology, and the emission limits listed in the tables below to constitute BACT for PM and  $PM_{10}$  from Terminal HOHs #1, #2, and #3.

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#### b. Sulfur Dioxide (SO<sub>2</sub>)

Sulfur dioxide is formed from the combustion of sulfur present in the fuel. Potential control options for sulfur dioxide emissions include the use of fuel with a low sulfur content, sorbent injection, and SO<sub>2</sub> scrubbing technologies such as flue gas desulfurization and packed-bed scrubbers.

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Emissions of sulfur dioxide from new natural gas-fired equipment are very low due to the low sulfur content of natural gas. Given the low level of sulfur dioxide emissions from the firing of natural gas, add-on emission control equipment for control of sulfur dioxide from Terminal HOHs #1, #2, and #3 is not economically feasible.

The Department finds the firing of natural gas and the emission limits listed in the tables below to constitute BACT for SO<sub>2</sub> from Terminal HOHs #1, #2, and #3.

#### c. Nitrogen Oxides (NO<sub>x</sub>)

Nitrogen oxides mainly consist of nitric oxide (NO) and nitrogen dioxide (NO<sub>2</sub>). NO<sub>x</sub> from fuel combustion are generated through one of three mechanisms: fuel NO<sub>x</sub>, thermal NO<sub>x</sub>, and prompt NO<sub>x</sub>. Fuel NO<sub>x</sub> is produced by the oxidation of nitrogen in the fuel source, with low nitrogen content fuels such as natural gas producing less NO<sub>x</sub> than fuels with higher levels of fuel-bound nitrogen. Thermal NO<sub>x</sub> forms in the high temperature area of the combustor and increases exponentially with increases in flame temperature and linearly with increases in residence time. Prompt NO<sub>x</sub> forms from the oxidation of hydrocarbon radicals near the combustion flame; this produces an insignificant amount of NO<sub>x</sub>.

Control of  $NO_x$  emissions can be accomplished using one of three methods: the use of add-on controls such as selective catalytic reduction (SCR) and selective non-catalytic reduction (SNCR); the use of combustion control techniques such as low  $NO_x$  burners, flue gas recirculation (FGR), and good combustion practices; and the combustion of clean fuel such as natural gas.

Given the size of the units and the low potential annual  $NO_x$  emissions from the units, the use of add-on controls such as SCR and SNCR are not economically feasible when firing natural gas.

Combustion control methods available to control  $NO_x$  from small industrial heaters include low  $NO_x$  burners, FGR, and good combustion practices. Low  $NO_x$  burners (LNBs) refers to burner components (burner register, atomizing nozzle, diffuser) that are designed to achieve lower  $NO_x$  by mixing the fuel and combustion air in a way that limits  $NO_x$  formation. This is generally done by mixing the combustion air and fuel in multiple stages and by utilizing a specially designed nozzle and/or diffuser to achieve a particular flame pattern. The use of LNBs is technically feasible for these units. However, the maximum potential emissions reduction from using LNBs on these units is 2.1 tpy each. The expected actual usage, and therefore

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emissions reduction, is expected to be significantly less. Therefore, the added expense to upgrade to LNBs for Terminal HOHs #1, #2, and #3 is determined to not be economically justified.

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In FGR systems, a portion of the combustion gases are recirculated back into the combustion zone. This process lowers peak flame temperatures, and therefore thermal NO<sub>x</sub> formation, by allowing the relatively cool flue gas to absorb heat released by the burner flame. Although considered technically feasible, the use of FGR is not economically feasible for small heaters such as Terminal HOHs #1, #2, and #3 due to the moderately high capital costs due to the ductwork needed to span from the burner outlet to the combustion air duct, the operating costs associated with the energy requirements of recirculation fans, and marginal emission reduction benefit. Additionally, FGR systems can affect heat transfer and system pressures.

Good combustion practices include operating the system based on the design and recommendations provided by the manufacturer and by maintaining proper air-to-fuel ratios with periodic maintenance checks.

The Department finds the firing of natural gas and the emission limits listed in the tables below to constitute BACT for NO<sub>x</sub> from Terminal HOHs #1, #2, and #3.

### d. Carbon Monoxide (CO) and Volatile Organic Compounds (VOC)

Carbon monoxide and volatile organic compounds emissions are a result of incomplete combustion, caused by conditions such as insufficient residence time or limited oxygen availability. Potential control options for CO and VOC emissions include combustion controls and the use of a catalyst system.

Emissions of CO and VOC from new natural gas-fired HOHs are generally low. Given the size of the units and the low potential CO and VOC emissions, the use of add-on emission control equipment for the control of CO and VOC emissions from Terminal HOHs #1, #2, and #3 are not considered economically feasible. Instead, Eurovia has proposed the use of efficient burner combustion technology.

The Department finds the firing of natural gas and the emission limits listed in the tables below to constitute BACT for CO and VOC from Terminal HOHs #1, #2, and #3.

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#### e. Emission Limits

The BACT emission limits for Terminal HOHs #1, #2, and #3 were based on the following:

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 PM/PM<sub>10</sub>
 - 0.05 lb/MMBtu based on 06-096 C.M.R. ch. 115, BACT

 SO<sub>2</sub>
 - 0.6 lb/MMscf based on AP-42 Table 1.4-2 dated 7/98

 NO<sub>x</sub>
 - 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 based on AP-42 Table 1.4-2 dated 7/98

Visible Emissions – 06-096 C.M.R. ch. 101

The BACT emission limits for Terminal HOHs #1, #2, and #3 are the following:

Unit	Pollutant	lb/MMBtu
Terminal HOH #1	PM	0.05
Terminal HOH #2	PM	0.05
Terminal HOH #3	PM	0.05

	PM	$PM_{10}$	$SO_2$	$NO_x$	CO	VOC
Unit	(lb/hr)	(lb/hr)	(lb/hr)	(lb/hr)	(lb/hr)	(lb/hr)
Terminal HOH #1	0.50	0.50	0.01	0.96	0.81	0.05
Terminal HOH #2	0.50	0.50	0.01	0.96	0.81	0.05
Terminal HOH #3	0.50	0.50	0.01	0.96	0.81	0.05

Visible emissions from Terminal HOHs #1, #2, and #3 shall each not exceed 10% opacity on a six-minute block average basis.

#### 2. New Source Performance Standards (NSPS): 40 C.F.R. Part 60, Subpart Dc

Due to their size, the Terminal HOHs #1, #2, and #3 are not subject to *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 (NESHAP): 40 C.F.R. Part 63, Subpart JJJJJJ

The Terminal HOHs #1, #2, and #3 do not heat water. As such, they do not meet the definition of a "boiler" and therefore are 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 JJJJJJ.

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#### E. Emission Statements

Eurovia is subject to emissions inventory requirements contained in *Emission Statements*, 06-096 C.M.R. ch. 137. Eurovia shall maintain the following records in order to comply with this rule:

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- 1. The amount of each type of fuel fired in Batch Mix Plant #26, HYCGO-200 Hot Oil Heater, and Terminal HOHs #1, #2, and #3;
- 2. The sulfur content of the distillate fuel and specification waste oil fired in Batch Mix Plant #26 and HYCGO-200 Hot Oil Heater;
- 3. The amount (tons) of HMA produced by Batch Mix Plant #26;
- 4. Capacity of each heated bulk storage tank (Tank #1 #5);
- 5. Monthly throughput for Tanks #1, #2, and #3 (combined);
- 6. Monthly throughput for Tanks #4 and #5 (combined);
- 7. Calculations of the facility-wide VOC and/or HAP emissions on a calendar year total basis; and
- 8. Hours each emission unit was active or operating on a monthly basis.

In reporting year 2020 and every third year thereafter, Eurovia shall report to the Department emissions of hazardous air pollutants as required by 06-096 C.M.R. ch. 137, § (3)(C). The Department will use these reports to calculate and invoice for the applicable annual air quality surcharge for the subsequent three billing periods. Eurovia shall pay the annual air quality surcharge, calculated by the Department based on these reported emissions of hazardous air pollutants, by the date required in Title 38 M.R.S. § 353-A(3). [38 M.R.S. § 353-A(1-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. Only licensed equipment is included, i.e., emissions from insignificant activities are excluded. Similarly, unquantifiable fugitive particulate matter emissions are not included. Maximum potential emissions were calculated based on the following assumptions:

- Processing 444,000 ton/year of HMA in Batch Mix Plant #26;
- A heat input limit for HYCGO-200 Hot Oil Heater of 15,000 MMBtu/year;
- Worst-case by pollutant emissions from HYCGO-200 Hot Oil Heater of firing either propane, natural gas, or distillate fuel with a sulfur content of 0.0015% by weight;
- Unlimited fuel use in Terminal HOHs #1, #2, and #3;
- Combined throughput for Tanks #1, #2, and #3 of 10.5 million gallons per year;
- Combined throughput for Tanks #4 and #5 of 5.25 million gallons per year; and
- Potential emissions from Tanks #1 #5 were estimated using the methodology contained in EPA's AP-42, Fifth Edition, Volume 1, Chapter 7, dated 3/2020 using

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#6 fuel oil as a surrogate for asphalt. These emission estimates are considered conservatively high.

Please note, this information provides the basis for fee calculation <u>only</u> and should not be construed to 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

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(used to calculate the annual license fee)

	PM	$PM_{10}$	SO <sub>2</sub>	NOx	со	VOC	Total HAP
Batch Mix Plant #26	9.3	9.3	19.5	26.6	88.8	8.0	_
HYCGO-200 Hot Oil Heater	0.1	0.1	_	1.1	0.6	0.1	_
Terminal HOH #1	2.2	2.2	_	4.2	3.5	0.2	_
Terminal HOH #2	2.2	2.2	_	4.2	3.5	0.2	_
Terminal HOH #3	2.2	2.2	_	4.2	3.5	0.2	_
Tank #1	_	_	_	_	_	1.6	_
Tank #2	_	_	_	_	_	1.6	_
Tank #3	_	_	_	_	_	1.6	_
Tank #4	_	_	_	_	_	1.6	_
Tank #5	_	_	_	_	_	1.6	_
Piping Fugitive	_	_	_	_	_	2.0	_
Total TPY	16.0	16.0	19.5	40.3	99.9	18.7	9.9

# 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.

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#### **ORDER**

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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, and
- will not violate applicable ambient air quality standards in conjunction with emissions from other sources.

The Department hereby grants Air Emission License Amendment A-257-71-U-A subject to the conditions found in Air Emission License A-257-71-R-R/A, in amendment A-257-71-S-M, and the following conditions.

<u>Severability</u>. 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 Condition (16)(B) of Air Emission License A-257-71-S-M:

#### (16) Batch Mix Asphalt Plant #26 (420 tons/hr)

B. The annual throughput of Batch Mix Asphalt Plant #26 shall not exceed 444,000 tons of HMA per year on a 12-month rolling total basis. Production records shall be kept on a monthly and 12-month rolling total basis and shall include the number of tons of asphalt produced using each fuel. [06-096 C.M.R. ch. 115, BPT]

The following shall Replace Conditions (16)(H) and (I) of Air Emission License A-257-71-R-R/A:

# (16) Batch Mix Asphalt Plant #26 (420 tons/hr)

- H. Visible emissions from the Batch Mix Asphalt Plant #26 baghouse is limited to no greater than 20% opacity on a six-minute block average basis, except for periods of startup, shutdown, or malfunction during which time Eurovia may comply with the following work practice standards in lieu of the numerical visible emissions standard.
  - 1. Maintain a log (written or electronic) of the date, time, and duration of all operating time, startups, shutdowns, and malfunctions for the asphalt batch plant.
  - 2. Develop and implement a written startup and shutdown plan for the asphalt batch plant.

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3. The duration of unit startups, shutdowns, or malfunctions shall each not exceed one hour per occurrence.

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4. Operate the asphalt batch plant 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.

[06-096 C.M.R. ch. 101, § 3(B)(1)]

I. General process emissions from the 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. [06-096 C.M.R. ch. 101, § 3(B)(4)]

Conditions (17), (18), and (22) of Air Emission License A-257-71-R-R/A are Deleted.

The following shall Replace Condition (20) of Air Emission License A-257-71-R-R/A:

### (20) General Process Sources

Visible emissions from any general process (including Cement Silos #1 and #2) shall not exceed 20% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 101, § 3(B)(4)]

### The following shall Replace Condition (21) of Air Emission License A-257-71-R-R/A:

## (21) Stockpiles and Roadways

Visible emissions from a fugitive emission source (including stockpiles and roadways) shall not exceed 20% opacity on a five-minute block average basis. [06-096 C.M.R. ch. 101, 3(C)]

#### The following shall Replace Condition (25) of Air Emission License A-257-71-R-R/A:

#### (25) Annual Emission Statement

A. In accordance with *Emission Statements*, 06-096 C.M.R. ch. 137, Eurovia 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.

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B. Eurovia shall keep the following records in order to comply with 06-096 C.M.R. ch. 137:

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- 1. The amount of each type of fuel fired in Batch Mix Plant #26, HYCGO-200 Hot Oil Heater, and Terminal HOHs #1, #2, and #3;
- 2. The sulfur content of the distillate fuel and specification waste oil fired in Batch Mix Plant #26 and HYCGO-200 Hot Oil Heater;
- 3. The amount (tons) of HMA produced by Batch Mix Plant #26;
- 4. Capacity of each heated bulk storage tank (Tanks #1 #5);
- 5. Monthly throughput for Tanks #1, #2, and #3 (combined);
- 6. Monthly throughput for Tanks #4 and #5 (combined);
- 7. Calculations of the facility-wide VOC and/or HAP emissions on a calendar year total basis; and
- 8. Hours each emission unit was active or operating on a monthly basis. [06-096 C.M.R. ch. 137]
- C. In reporting year 2020 and every third year thereafter, Eurovia shall report to the Department emissions of hazardous air pollutants as required by 06-096 C.M.R. ch. 137, § (3)(C). Eurovia shall pay the annual air quality surcharge, calculated by the Department based on these reported emissions of hazardous air pollutants, by the date required in Title 38 M.R.S. § 353-A(3). [38 M.R.S. § 353-A(1-A)]

#### The following are New Conditions:

#### (26) **Terminal HOHs #1, #2, and #3**

- A. Terminal HOHs #1, #2, and #3 shall each have a maximum heat input capacity not to exceed 9.9 MMBtu/hr. [06-096 C.M.R. ch. 115, BACT]
- B. Terminal HOHs #1, #2, and #3 shall fire only natural gas. [06-096 C.M.R. ch. 115, BACT]
- C. Emissions shall not exceed the following:

<b>Emission Unit</b>	Pollutant	lb/MMBtu	Origin and Authority		
Terminal HOH #1	PM	0.05	06-096 C.M.R. ch. 115, BACT		
Terminal HOH #2	PM	0.05	06-096 C.M.R. ch. 115, BACT		
Terminal HOH #3	PM	0.05	06-096 C.M.R. ch. 115, BACT		

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

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	PM	PM <sub>10</sub>	SO <sub>2</sub>	NOx	СО	VOC
<b>Emission Unit</b>	(lb/hr)	(lb/hr)	(lb/hr)	(lb/hr)	(lb/hr)	(lb/hr)
Terminal HOH #1	0.50	0.50	0.01	0.96	0.81	0.05
Terminal HOH #2	0.50	0.50	0.01	0.96	0.81	0.05
Terminal HOH #3	0.50	0.50	0.01	0.96	0.81	0.05

E. Visible emissions from Terminal HOHs #1, #2, and #3 shall each not exceed 10% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 101, § 3(A)(3)]

# (27) Asphalt Storage Tanks (Tanks #1 - #5)

- A. Eurovia shall store only asphalt in their heated petroleum storage tanks. [06-096 C.M.R. ch. 115, BACT]
- B. Eurovia shall keep records of the quantity (on a monthly basis) of any product(s) blended with the asphalt and subsequently stored in Tanks #1 #5. Eurovia shall keep records of Safety Data Sheets (SDS) for any product(s) added to the asphalt on-site and subsequently stored in Tanks #1 #5 [06-096 C.M.R. ch. 115, BACT]
- C. Tanks #1 #5 shall each be fully insulated including the roof. [06-096 C.M.R. ch. 115, BACT]
- D. Tanks #1, #2, and #3 combined shall not exceed an annual throughput of 10.5 million gallons per year on a 12-month rolling total basis. [06-096 C.M.R. ch. 115, BACT]
- E. Tanks #4 and #5 combined shall not exceed an annual throughput of 5.25 million gallons per year on a 12-month rolling total basis. [06-096 C.M.R. ch. 115, BACT]
- F. The asphalt stored in Tanks #1, #2, and #3 shall not exceed an hourly average liquid temperature of 310 °F. Compliance shall be demonstrated by the temperature monitoring required by this license. [06-096 C.M.R. ch. 115, BACT]
- G. Eurovia shall continuously monitor and record the hourly average liquid temperature for product stored in each heated bulk storage tank (Tanks #1 #5) through use of a thermocouple installed in the tank wall. [06-096 C.M.R. ch. 115, BACT]
- H. Eurovia shall conduct routine inspections of all asphalt storage tanks at a minimum of once every month. Visual inspections shall include the roof and around the perimeter of the tank. [06-096 C.M.R. ch. 115, BACT]

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I. Eurovia shall maintain logs of all inspections documenting any detected leaks, holes, tears, or other openings, and the corrective action taken including the date of the corrective action. Repairs shall be undertaken as soon as practicable. If an inspection is not performed because the tank is empty, this should also be noted in the log. [06-096 C.M.R. ch. 115, BACT]

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- J. Eurovia shall comply with all requirements of 40 C.F.R. Part 60, Subpart Kb applicable to Tanks #4 and #5 including, but not limited to the following:
  - 1. Eurovia shall submit notification to EPA and the Department of the date construction commenced postmarked no later than 30 days after such date. [40 C.F.R. § 60.7(a)(1)]
  - 2. Eurovia shall submit notification to EPA and the Department of the actual date of initial startup postmarked no later than 15 days after such date. [40 C.F.R. § 60.7(a)(3)]
  - 3. Eurovia shall maintain readily accessible records showing the dimensions of each storage vessel (Tanks #4 and #5) and an analysis showing the capacity of each storage vessel. These records shall be kept for the life of the facility. [40 C.F.R. §§ 60.116b(a) & (b)]
  - 4. Eurovia shall maintain the following records for each storage vessel (Tanks #4 and #5):
    - a. Product stored;
    - b. Period of storage (i.e., note any time when the tank is empty); and
    - c. Maximum true vapor pressure of the product stored.

[40 C.F.R. § 60.116b(c)]

The maximum true vapor pressure is calculated based on the highest calendarmonth average of the storage temperature (i.e. by taking the average product temperature over the course of a calendar month). [40 C.F.R. § 60.116b(e)(1)]

5. Eurovia shall notify DEP and EPA within 30 days if the maximum true vapor pressure of the liquid exceeds 5.2 kPa (expected at 348 °F). [40 C.F.R. § 60.116b(d)]

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# (28) Facility-Wide Emission Limits

A. Eurovia shall not exceed a facility-wide emission limit of 18.7 tpy of VOC on a 12-month rolling total basis. [06-096 C.M.R. ch. 115, BACT]

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- B. Eurovia shall not exceed a facility-wide emission limit of 9.9 tpy for all HAP combined on a 12-month rolling total basis. [06-096 C.M.R. ch. 115, BACT]
- C. Compliance with the facility-wide VOC emission limit shall be demonstrated by calculating actual emissions at least once annually as required by *Emission Statements*, 06-096 C.M.R. ch. 137. [06-096 C.M.R. ch. 115, BACT]
- D. Compliance with the facility-wide HAP emission limit shall be demonstrated by calculating actual emissions at least once every three years as required by *Emission Statements*, 06 096 C.M.R. ch. 137. [06-096 C.M.R. ch. 115, BACT]
- E. Eurovia shall maintain records necessary to calculate annual VOC or HAP emissions for any consecutive 12-month period and shall provide a demonstration of compliance with the facility-wide VOC and HAP emission limits for any consecutive 12-month period upon request by the Department. [06-096 C.M.R. ch. 115, BACT]
- F. Actual emissions of VOC shall be calculated as follows with all emissions summed to provide an annual total: [06-096 C.M.R. ch. 115, BACT]
  - 1. Heated Bulk Storage Tanks

Until site-specific emissions data is available, VOC emissions from Tanks #1 - #5 shall be calculated in accordance with the methodology contained in the most current version of EPA's Compilation of Air Emission Factors (AP-42), Fifth Edition, Volume 1, Chapter 7, *Liquid Storage Tanks*.<sup>3</sup>

Site-specific emissions data for working losses (i.e., emissions during tank filling) shall be determined through performance testing conducted annually with no more than 14 months between tests, unless or until the Department notifies Eurovia in writing that testing is no longer required. Initial testing shall be performed within 180 days of startup (i.e., within 180 days of first taking delivery of asphalt). After three consecutive years of performance testing, Eurovia may request the Department reevaluate the testing frequency.

Testing shall be performed on two representative tanks, one from Tanks #1 - #3 and one from Tanks #4 - #5. Test methods and procedures shall be worked out with the Department in the required test protocol.

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<sup>&</sup>lt;sup>3</sup> https://www3.epa.gov/ttn/chief/ap42/ch07/index.html

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#### 2. Tank Maintenance

VOC emissions from tank maintenance operations (both planned and unplanned), including tank degassing and cleaning, shall be calculated in accordance with the methodology contained in the most current version of AP-42, Fifth Edition, Volume 1, Chapter 7.

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### 3. Facility Piping

Eurovia shall keep an updated inventory of system components (e.g., valves, pump seals, connectors, flanges, etc.) and the number of each, and calculate fugitive emissions using emission factors obtained from EPA's *Protocol for Equipment Leak Emission Estimates*, EPA-453/R-95-017, dated November 1995.

#### 4. Batch Mix Plant #26

VOC emissions from Batch Mix Plant #26 shall be estimated based on the tons of HMA produced and an emission factor of 0.0082 lb/ton HMA based on AP-42 Table 11.1-6 dated 3/04.

# 5. Combustion Equipment

Other combustion equipment, including Terminal HOHs #1, #2, and #3 emit small amounts of VOC due to incomplete combustion. VOC emissions from this equipment shall be estimated based on the amount of fuel fired and the equipment's licensed emission limits.

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

G. Eurovia shall keep the following records in order to calculate emissions as described above for compliance demonstration with the facility-wide annual VOC emission limit: [06-096 C.M.R. ch. 115, BACT]

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- 1. Monthly throughput for Tanks #1, #2, and #3 (combined);
- 2. Monthly throughput for Tanks #4 and #5 (combined);
- 3. Equipment and product information necessary to calculate emissions from the heated bulk storage tanks in accordance with AP-42, Chapter 7;
- 4. Process and product information necessary to calculate emissions from tank maintenance operations in accordance with AP-42, Chapter 7;
- 5. Equipment and product information necessary to calculate emissions from facility piping in accordance with EPA's *Protocol for Equipment Leak Emission Estimates*;
- 6. Tons of HMA produced in Batch Mix Plant #26; and
- 7. Fuel use on a monthly basis for Terminal HOHs #1, #2, and #3 (either individually or combined).

for

DONE AND DATED IN AUGUSTA, MAINE THIS 16<sup>th</sup> DAY OF OCTOBER, 2020.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY:

MELANIE LOYZIM, ACTING COMMISSIONER

The term of this amendment shall be concurrent with the term of Air Emission License A-257-71-R-R/A.

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: 8/28/2020
Date of application acceptance: 8/31/2020

Date filed with the Board of Environmental Protection:

This Order prepared by Lynn Muzzey, Bureau of Air Quality.

# **FILED**

OCT 16, 2020

State of Maine Board of Environmental Protection