



Commonwealth of Massachusetts  
Executive Office of Energy & Environmental Affairs

## Department of Environmental Protection

Western Regional Office • 436 Dwight Street, Springfield MA 01103 • 413-784-1100

DEVAL L. PATRICK  
Governor

TIMOTHY P. MURRAY  
Lieutenant Governor

RICHARD K. SULLIVAN JR.  
Secretary

KENNETH L. KIMMELL  
Commissioner

May 10, 2012

Meagan R. Sylvia, Environmental Mgr.  
The Lane Construction Corporation  
243 King Street, Suite 239  
Northampton, MA 01060

Re: Adams  
Transmittal No. X241527  
Application No. WE-12-003  
Class: SM25  
FMF No. : 130057  
**AIR QUALITY PLAN APPROVAL**

### Final Approval Amendment

Dear Ms. Sylvia:

The Massachusetts Department of Environmental Protection ("MassDEP"), Bureau of Waste Prevention, has reviewed your Non-major Comprehensive Plan Application ("Application") listed above. This Application concerns the proposed installation of a new burner at the hot mix asphalt plant located at 173 Howland Avenue in Adams, Massachusetts ("Facility"). The Application bears the seal and signature of Massachusetts Registered Professional Engineer John W. Lavin, P.E. # 40234.

This Application was submitted in accordance with 310 CMR 7.02 Plan Approval and Emission Limitations as contained in 310 CMR 7.00 "Air Pollution Control," regulations adopted by MassDEP pursuant to the authority granted by Massachusetts General Laws, Chapter 111, Section 142 A-J, Chapter 21C, Section 4 and 6, and Chapter 21E, Section 6. MassDEP's review of your Application has been limited to air pollution control regulation compliance and does not relieve you of the obligation to comply with any other regulatory requirements.

MassDEP has determined that the Application is administratively and technically complete and that the Application is in conformance with the Air Pollution Control regulations and current air pollution control engineering practice, and hereby grants this Plan Approval for said Application, as submitted, subject to the conditions listed below.

This Final Approval Amendment corrects the April 12, 2012 Final Approval emission limit for PM/PM<sub>10</sub>/PM<sub>2.5</sub> from 0.06 gr/dscf to 0.04 gr/dscf, which is the emission limit specified in 40 CFR 60, Subpart I, "Standards of Performance for Hot Asphalt Facilities",

Please review the entire Plan Approval, as it stipulates the conditions with which the Facility owner / operator (“Permittee”) must comply in order for the Facility to be operated in compliance with this Plan Approval.

**1. DESCRIPTION OF FACILITY AND APPLICATION**

The Adams Asphalt Plant aggregate dryer is sized to produce up to 180 tons of asphalt per hour. It is currently equipped with a GENCOR FP-86 burner rated at 86.2 MMBtu/hr heat input while burning distillate oil fuel (0.3% sulfur by weight).

Lane proposes replacing this burner with a Hauck Eco Star Model ES-50 multi-fuel burner rated at 63 MMBtu/hr while burning natural gas and at 60 MMBtu/hr while burning ultra low sulfur distillate oil (0.0015% sulfur by weight) as a secondary auxiliary fuel.

**2. EMISSION UNIT IDENTIFICATION**

Each Emission Unit (EU) identified in Table 1 is subject to and regulated by this Plan Approval:

<b>Table 1</b>			
<b>Emission Unit</b>	<b>Description</b>	<b>Design Capacity</b>	<b>Pollution Control Device (PCD)</b>
EU #1	Adams Plant aggregate dryer	180 tons asphalt per hour	Hauck Eco Star Burner; baghouse

**3. APPLICABLE REQUIREMENTS**

**A. OPERATIONAL, PRODUCTION AND EMISSION LIMITS**

The Permittee is subject to, and shall not exceed the Operational, Production, and Emission Limits as contained in Table 2, below:

<b>Table 2</b>					
Emission Unit	Operational / Production Limit	Air Contaminant	Emission Limit		Mass Emissions
			Natural Gas	ULSD Oil	
EU #1	Natural Gas 27,600,000 ft <sup>3</sup> /year <sup>(1)</sup>	PM / PM <sub>10</sub> / PM <sub>2.5</sub>	0.04 gr/dscf	0.04 gr/dscf	1.7 tons/yr <sup>(1)</sup>
		NO <sub>x</sub>	80 ppmvd <sup>(2)</sup>	140 ppmvd <sup>(2)</sup>	1.9 tons/yr <sup>(1)</sup>
		SO <sub>x</sub>	–	set by %S in fuel	0.01 tons/yr <sup>(1)</sup>
	ULSD Oil 200,000 gallons/year <sup>(1)</sup>	CO	0.29 lb/MMBtu	0.38 lb/MMBtu	5.3 tons/yr <sup>(1)</sup>
		VOC	0.024 lb/MMBtu	0.025 lb/MMBtu	0.35 tons/yr <sup>(1)</sup>
		Single HAP	1.0 lb/hr	1.0 lb/hr	0.23 tons/yr <sup>(1)</sup>
		Total HAP	1.0 lb/hr	1.0 lb/hr	0.23 tons/yr <sup>(1)</sup>
		Sulfur in fuel	–	0.0015% sulfur by weight	
		Visible Emissions	≤ 5 % at all times, except ≤20% for ≤ 2 minutes during any one hour, never to exceed 20%		
<b>Definitions:</b> NO <sub>x</sub> = nitrogen oxides CO = carbon monoxide VOC = volatile organic compounds HAP = hazardous air pollutant PM = filterable particulate matter as measured by EPA Method 5. PM <sub>10</sub> = particulate matter with a mean aerodynamic diameter of 10 micrometers or less PM <sub>2.5</sub> = particulate matter with a mean aerodynamic diameter of 2.5 micrometers or less			ULSD = ultra low sulfur distillate oil (≤ 0.0015% sulfur by weight) MMBtu = million British Thermal Units ft <sup>3</sup> = cubic feet lb = pound hr = hour gr = grains dscf = dry standard cubic feet ppmvd = parts per million, by volume, dry		

- (1) Based on a 12 month rolling total. Compliance with a 12 month rolling total fuel limit is determined each month by adding the previous 12 months of fuel use and comparing the total to the fuel limit specified above.
- (2) corrected to 3% O<sub>2</sub>
- (3) Fuel use restriction is the sum of all oil used
- (4) Based on a calendar month.

**B. COMPLIANCE DEMONSTRATION**

The Permittee is subject to, and shall comply with, the monitoring, testing, record keeping, and reporting requirements as contained in Tables 3, 4, and 5 below:

<b>Table 3</b>	
<b>Emission Unit</b>	<b>Monitoring/Testing Requirements</b>
EU #1	<ol style="list-style-type: none"> <li>1. Lane-Adams shall install, operate and maintain an outlet gas temperature and pressure differential monitoring system for the aggregate dryer baghouse which includes an instantaneous reading of the temperature and differential pressure in the plant operator's control station.</li> <li>2. Lane-Adams shall ensure that the aggregate dryer burner shuts down at 350°F stack temperature to prevent damage to the baghouse filter media. The proper operation of the burner shutdown mechanism and the verification of the setpoint temperature shall be established and documented prior to the start of each operating season.</li> <li>3. Lane-Adams shall install, operate, and maintain audible and visual alarms that signal the need for corrective action in the event the baghouse differential pressure is outside the limits of normal operation established by the manufacturer or through compliance testing.</li> <li>4. Lane-Adams shall ensure that all corrective actions to be undertaken under alarm conditions shall be explicitly stated in the facility's Standard Operating and Maintenance Procedure (SOMP).</li> <li>5. Lane-Adams shall ensure that facility personnel, at a minimum, conduct a daily inspection of the dryer and baghouse and that the plant operator routinely observes the baghouse discharge stack during operation.</li> <li>6. Lane-Adams shall monitor daily fuel consumption with fuel flow meters.</li> <li>7. Lane-Adams shall ensure that the aggregate dryer burner is inspected and maintained in accordance with the manufacturer's recommendations and tested for efficient operation at least once in each calendar year.</li> </ol>

**Table 3**

Emission Unit	Monitoring/Testing Requirements
EU #1	<p>8. Lane–Adams shall conduct compliance stack tests of the aggregate dryer no later than 120 days after startup of the new burner. Lane–Adams shall ensure emission testing minimally consists of a determination of <u>particulate matter</u>, <u>carbon monoxide</u>, <u>nitrogen oxides</u>, and <u>opacity</u>.</p> <p><u>Formaldehyde</u> emissions shall also be tested in order to demonstrate compliance with the applicable Massachusetts Threshold Effects Exposure Limits (TELEs) and Massachusetts Allowable Ambient Limits (AALs).</p> <p>9. Lane–Adams shall submit a Stack Test Protocol for emission testing under typical and/or maximum production capacity conditions at least 30 days prior to the scheduled testing. The pre-test protocol shall include, but not be limited to, a description of the emission compliance testing program proposed, applicable emission limits for which testing and demonstration of compliance is required, sampling point locations, sampling equipment, analytical procedures, proposed test methods, the proposed operating conditions for the testing and identity of the independent third party testing company.</p> <p>All testing shall be conducted in accordance with the requirements and procedures set forth by appropriate US EPA Reference Test Methods, 40 CFR 60 Appendix A, Massachusetts Air Pollution Control Regulations, 310 CMR 7.00, Section 7.13 and this Final Approval. This compliance testing shall be witnessed by MassDEP personnel at a mutually agreeable time and date.</p> <p>10. Lane–Adams shall submit a final emission compliance test report to the MassDEP within 45 days after completion of the tests. The test report shall include, but not be limited to, a description of the testing program that was conducted, the applicable emission limits for which testing was required, a summary of test results demonstrating compliance and/or noncompliance with the applicable limits, the sampling point locations, the sampling equipment, the analytical procedures, the actual test methods used, and the actual operating conditions during which the testing was conducted.</p> <p>11. Lane–Adams shall demonstrate thru compliance stack testing, at least once every three years, the continued ability of the subject equipment to maintain emission rates at or below the short term emission limits stated in Table 2. Any extension beyond the three year requirement must be approved by MassDEP in writing.</p> <p>12. Lane–Adams shall perform emissions compliance testing (stack testing) in accordance with 310 CMR 7.13 and 40 CFR Part 60 Appendix A, or any other testing specified upon request of MassDEP or US EPA.</p>

<b>Table 4</b>	
<b>Emission Unit</b>	<b>Recordkeeping Requirements</b>
EU #1	<p>13. Lane–Adams shall establish an on-site record-keeping system to record all operational, monitoring, maintenance, testing and any other pertinent requirements or information, sufficient to demonstrate that emissions have not exceeded what is allowed by this approval.</p> <p>All records shall be <u>maintained on-site for a minimum of five (5) years</u> and kept up-to-date such that "calendar month" and "twelve-month rolling total" information is readily available for MassDEP examination.</p> <p>Record keeping shall, at a minimum, include:</p> <ul style="list-style-type: none"> <li>a) Daily records of fuel consumption facility-wide.</li> <li>b) Daily records of raw material usage and the amount of product produced.</li> <li>c) Records (including descriptions, dates and times) of maintenance performed on the aggregate dryer, dryer burner, and fuel flow meters.</li> <li>d) Records (including descriptions, dates and times) of maintenance activities performed on the baghouse which shall specify the date of inspection, dates of "Visolite" testing, the number and location of filter elements replaced, and the overall condition of the fabric filter.</li> <li>e) Records (including descriptions, dates and times) of all malfunctions of the baghouse, aggregate dryer and burner, and fuel flow meters including, at a minimum: <ul style="list-style-type: none"> <li>i. the date and time the malfunction occurred;</li> <li>ii. a description of the malfunction,</li> <li>iii. description of the corrective action taken;</li> <li>iv. the date and time corrective actions were initiated; and</li> <li>v. the date and time corrective actions were completed.</li> </ul> </li> </ul>

<b>Table 5</b>	
<b>Emission Unit</b>	<b>Reporting Requirements</b>
EU #1	<p>14. Lane–Adams shall generate monthly reports in-house that document fuel use in accordance with the limits specified in Table 2 of this approval. <u>If any monthly or yearly fuel use limit is exceeded, Lane shall notify the MassDEP in writing no later than the 15th day of the following month. The notification shall include identification, duration, and reason for the exceedance, and a remedial action plan to prevent future exceedances.</u></p> <p>15. Lane–Adams shall accurately report to MassDEP in accordance with 310 CMR 7.12, all information as required by the source Registration/Emission Statement Form. The facility shall note any minor changes that have taken place which did not require Plan Approval in accordance with 310 CMR 7.02, 7.03, and other applicable regulations.</p>

**4. SPECIAL TERMS AND CONDITIONS**

The Permittee is subject to, and shall comply with, the following special terms and conditions:

- A. The Permittee shall comply with the Special Terms and Conditions as contained in Table 6 below:

<b>Table 6</b>	
<b>Emission Unit</b>	<b>Special Conditions</b>

EU #1	<p>16. Lane–Adams shall conduct as many “Visolite” (or equivalent) leak detection tests as needed to locate leaks, bag failures, and any other leakage or mechanical problems which would prevent proper operation of the baghouse. This leak detection testing shall be done prior to the start of each operating season. Additional tests shall be performed as needed to locate leaks, bag failures or other problems with the normal operation of the baghouse.</p> <p>17. Lane–Adams shall ensure that no fuel other than natural gas and ultra low sulfur distillate (<math>\leq 0.0015\%</math> sulfur) is burned in the aggregate dryer burner.</p> <p>18. Lane–Adams shall maintain on-site and accessible at or near the subject equipment a copy of this Approval letter and the most current SOMP for all air emission related equipment at the facility.</p> <p>19. Lane–Adams shall ensure that the fuel flow meters used for documenting compliance with this approval are, calibrated, maintained and operated in accordance with the manufacturer’s recommendations.</p> <p>24. Lane–Adams shall operate the subject exhaust stacks in a manner consistent with good air pollution control engineering practice, and ensure the stack discharge does not cause or contribute to a condition of air pollution. Exhaust stacks must be configured to discharge the exhaust gases vertically upwards. The stacks shall not have any part or device that restricts the vertical flow of the exhaust gases (including any rain protection devices) as they are emitted to the ambient air. “Shanty caps”, “egg beaters” and the like are prohibited. Any emission impacts of exhaust stacks upon sensitive receptors including, but not limited to, people, windows and doors that open, and building fresh air intakes shall be minimized by employing good air pollution control engineering practices.</p> <p>25. Lane–Adams shall employ best management practices to minimize fugitive particulate emissions from the facility. This includes but is not limited to keeping all facility roads paved, swept, and/or wetted as applicable, keeping all raw material storage piles watered as necessary, and keeping sand, RAP, and drum mix aggregate feed conveyors enclosed at all times, if necessary as determined by MassDEP, to minimize fugitive particulate emissions.</p> <p>26. Lane–Adams shall utilize non-volatile release agents for the trucks, require that all trucks cover their loads with tarps as quickly as possible after loading, and limit on-site truck speeds to no more than 10 miles per hour.</p> <p>27. Lane–Adams shall have readily accessible on-site as spares, at all times, the minimum number of filter elements, cartridges, or bags for facility dust collectors, as recommended by the manufacturer.</p> <p>28. Lane–Adams shall ensure that the facility complies with all applicable requirements contained in 40 CFR 60, Subpart I, “Standards of Performance for Hot Asphalt Facilities.”</p> <p>29. Lane–Adams shall comply with 310 CMR 7.09(1) at all times. This Regulation states that no person having control of any dust or odor generating operation shall permit emissions which cause or contribute to a condition of air pollution. This Air pollution Control Regulation is also enforceable by any police department, fire department, board of health officials, or building inspector or their designee acting within their jurisdictional area, in accordance with 310 CMR 7.52.</p> <p>30. Lane–Adams shall comply with 310 CMR 7.01(1) at all times. 310 CMR 7.01(1) states that no person owning, leasing or controlling the operation of any air contaminant source shall willfully, negligently, or through failure to provide necessary equipment or to take necessary precautions, permit any air emissions from said air contamination source of such quantities of air contaminants which will cause, by themselves or in conjunction with other air contaminants, a condition of air pollution.</p>
-------	---

B. The Permittee shall install and use an exhaust stack, as required in Table 7, on each of the Emission Units that is consistent with good air pollution control engineering practice and that discharges so as to not cause or contribute to a condition of air pollution. Each exhaust stack shall be configured to discharge the gases vertically and shall not be equipped with any part or device that restricts the vertical exhaust flow of the emitted gases, including but not limited

to rain protection devices known as “shanty caps” and “egg beaters.” The Permittee shall install and utilize exhaust stacks with the following parameters, as contained in Table 7 below, for the Emission Units that are regulated by this Plan Approval:

<b>Table 7</b>				
<b>Emission Unit</b>	<b>Stack Height Above Ground</b>	<b>Stack Inside Exit Dimensions</b>	<b>Stack Gas Exit Velocity Range</b>	<b>Stack Gas Exit Temp. Range</b>
<b>EU #1</b>	26 feet	49"x48.5" (square)	40 feet/second	250°F

## **6. GENERAL CONDITIONS**

The Permittee is subject to, and shall comply with, the following general conditions:

- A. Pursuant to 310 CMR 7.01, 7.02, 7.09 and 7.10, should any nuisance condition(s), including but not limited to smoke, dust, odor or noise, occur as the result of the operation of the Facility, then the Permittee shall immediately take appropriate steps including shutdown, if necessary, to abate said nuisance condition(s).
- B. If asbestos remediation/removal will occur as a result of the approved construction, reconstruction, or alteration of this Facility, the Permittee shall ensure that all removal/remediation of asbestos shall be done in accordance with 310 CMR 7.15 in its entirety and 310 CMR 4.00.
- C. If construction or demolition of an industrial, commercial or institutional building will occur as a result of the approved construction, reconstruction or alteration of this Facility, the Permittee shall ensure that said construction or demolition shall be done in accordance with 310 CMR 7.09(2) and 310 CMR 4.00.
- D. Pursuant to 310 CMR 7.01(2)(b) and 7.02(7)(b), the Permittee shall allow MassDEP and / or USEPA personnel access to the Facility, buildings, and all pertinent records for the purpose of making inspections and surveys, collecting samples, obtaining data, and reviewing records.
- E. This Plan Approval does not negate the responsibility of the Permittee to comply with any other applicable Federal, State, or local regulations now or in the future.
- F. Should there be any differences between the Application and this Plan Approval, the Plan Approval shall govern.
- G. Pursuant to 310 CMR 7.02(3)(k), MassDEP may revoke this Plan Approval if the construction work is not commenced within two years from the date of issuance of this Plan Approval, or if the construction work is suspended for one year or more.
- H. This Plan Approval may be suspended, modified, or revoked by MassDEP if MassDEP determines that any condition or part of this Plan Approval is being violated.
- I. This Plan Approval may be modified or amended when in the opinion of MassDEP such is necessary or appropriate to clarify the Plan Approval conditions or after consideration of a written request by the Permittee to amend the Plan Approval conditions.

- J. The Permittee shall conduct emission testing, if requested by MassDEP, in accordance with USEPA Reference Test Methods and regulation 310 CMR 7.13. If required, a pretest protocol report shall be submitted to MassDEP at least 30 days prior to emission testing and the final test results report shall be submitted within 45 days after emission testing.
- K. Pursuant to 310 CMR 7.01(3) and 7.02(3)(f), the Permittee shall comply with all conditions contained in this Plan Approval. Should there be any differences between provisions contained in the General Conditions and provisions contained elsewhere in the Plan Approval, the latter shall govern.

**7. MASSACHUSETTS ENVIRONMENTAL POLICY ACT**

MassDEP has determined that the filing of an Environmental Notification Form (ENF) with the Secretary of Energy & Environmental Affairs, for air quality control purposes, was not required prior to this action by MassDEP. Notwithstanding this determination, the Massachusetts Environmental Policy Act (MEPA) and 301 CMR 11.00, Section 11.04, provide certain “Fail-Safe Provisions,” which allow the Secretary to require the filing of an ENF and/or an Environmental Impact Report (EIR) at a later time.

**8. APPEAL PROCESS**

This Plan Approval is an action of MassDEP. If you are aggrieved by this action, you may request an adjudicatory hearing. A request for a hearing must be made in writing and postmarked within twenty-one (21) days of the date of issuance of this Plan Approval.

Under 310 CMR 1.01(6)(b), the request must state clearly and concisely the facts, which are the grounds for the request, and the relief sought. Additionally, the request must state why the Plan Approval is not consistent with applicable laws and regulations.

The hearing request along with a valid check payable to the Commonwealth of Massachusetts in the amount of one hundred dollars (\$100.00) must be mailed to:

Commonwealth of Massachusetts  
Department of Environmental Protection  
P.O. Box 4062  
Boston, MA 02211

This request will be dismissed if the filing fee is not paid, unless the appellant is exempt or granted a waiver as described below. The filing fee is not required if the appellant is

a city or town (or municipal agency), county, or district of the Commonwealth of Massachusetts, or a municipal housing authority.

MassDEP may waive the adjudicatory hearing-filing fee for a person who shows that paying the fee will create an undue financial hardship. A person seeking a waiver must file, together with the hearing request as provided above, an affidavit setting forth the facts believed to support the claim of undue financial hardship.

Should you have any questions concerning this Plan Approval, please contact John Kirzec by telephone at (413) 755-2225, or in writing at the letterhead address.

Sincerely,

This final document copy is being provided to you electronically by the Department of Environmental Protection. A signed copy of this document is on file at the DEP office listed on the letterhead.

---

Marc Simpson  
Permit Chief  
Bureau of Waste Prevention  
Western Region

JK/jk

ecc: Peter Czapienski, WERO  
Yi Tian, Boston