7 April 2010

Mr. James Manni
J.H. Lynch & Sons, Inc.
50 Lynch Place
Cumberland, RI 02864

Dear Mr. Manni:

The Department of Environmental Management, Office of Air Resources has reviewed and approved your application for the installation of a baghouse and a double barrel convertadrum at your asphalt plant located at 50 Lynch Place, Cumberland, RI.

During the course of our review of your application, we determined that the Astec baghouse located at 50 Lynch Place, Cumberland RI was installed in 2000 and the Astec Double Barrel Convertadrum located at 50 Lynch Place, Cumberland, RI was installed in 1997 then replaced by an identical unit in 2004. J.H. Lynch & Sons, Inc. failed to obtain a preconstruction permit prior to the installation of this equipment as required by RI Air Pollution Control Regulation No. 9. The issuance of this minor source permit will now bring J.H. Lynch & Sons, Inc. into compliance with the requirement to obtain a preconstruction permit.

Enclosed is a minor source permit issued pursuant to our review of your application (Approval Nos. 2097-2098).

The permit conditions and emission limitations in this permit also incorporate and include those in Approval No. 2024 issued on 3 March 2008. Hereinafter the design, construction, and operation of all the equipment addressed in this approval shall be subject to the permit conditions and emission limitations contained in this minor source permit.

If there are any questions concerning this permit, please contact me at 222-2808, extension 7011.

Sincerely,

Aleida M. Whitney
Air Quality Specialist
Office of Air Resources

cc: John W. Lavin – Earthworks Engineering, Inc.
Cumberland Building Official

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR RESOURCES

MINOR SOURCE PERMIT

J.H. Lynch & Sons, Inc.

APPROVAL NOs. 2024, 2097 & 2098

Pursuant to the provisions of Air Pollution Control Regulation No. 9, this minor source permit is issued to:

J.H. Lynch & Sons, Inc.

For the following:

Installation of an Astec Double Barrel Convertadrum (Approval No. 2097) which includes a dryer/drum mixer and cyclone. The dryer shall be fired with natural gas,alternative fuel or no. 2 fuel oil containing 0.5% sulfur or less. Installation of an Astec Model No. RBH90DBSP pulse jet baghouse (Approval No. 2098) to control particulate emissions from the production of asphalt.

Located at: *50 Lynch Place, Cumberland*

This permit shall be effective from the date of its issuance and shall remain in effect until revoked by or surrendered to the Department. This permit does not relieve *J.H. Lynch & Sons, Inc.* from compliance with applicable state and federal air pollution control rules and regulations. The design, construction and operation of this equipment shall be subject to the attached permit conditions and emission limitations.

Douglas L. McVay, Acting Chief
Office of Air Resources

Date of issuance

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR RESOURCES

Permit Conditions and Emission Limitations

J.H. LYNCH & SONS, INCORPORATED

APPROVAL NOs. 2024, 2097 & 2098

The following permit conditions and emission limitations are applicable to the asphalt plant while burning alternative fuel.

A. Emission Limitations

1. Particulate Matter

a. The concentration of particulate matter discharged to the atmosphere from the baghouse stack shall not exceed 0.04 grain per dry standard cubic foot.

b. The emission rate of particulate matter discharged to the atmosphere from the baghouse stack shall not exceed 9.2 pounds per hour.

2. Opacity

Visible emissions from the baghouse stack shall not exceed 10 percent opacity (six-minute average).

3. Nitrogen Oxides (NO_x)

a. Natural Gas

(1) The concentration of nitrogen oxides discharged from the dryer/mixer drum shall not exceed 53 ppmv, corrected to 7 percent O2 (1-hour average) when burning natural gas.

(2) The emission rate of nitrogen oxides discharged from the dryer/mixer drum shall not exceed 10.4 lbs per hour when burning natural gas.

b. No. 2 Fuel Oil

(1) The concentration of nitrogen oxides discharged from the dryer/mixer drum shall not exceed 107 ppmv, corrected to 7 percent O_2 (1-hour average) when burning No. 2 fuel oil.

(2) The emission rate of nitrogen oxides discharged from the dryer/mixer drum shall not exceed 22.0 lbs per hour when burning No. 2 fuel oil.

c. Alternative Fuel

(1) The concentration of nitrogen oxides discharged from the dryer/mixer drum shall not exceed 115 ppmv, corrected to 7 percent O_2 (1-hour average) when burning alternative fuel.

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(2) The emission rate of nitrogen oxides discharged from the dryer/mixer drum shall not exceed 22.0 lbs per hour when burning alternative fuel.

4. Carbon Monoxide (CO)

a. Natural Gas

(1) The concentration of carbon monoxide discharged from the dryer/mixer drum shall not exceed 438 ppmv, corrected to 7 percent O_2 (1-hour average) when burning natural gas.

(2) The emission rate of carbon monoxide discharged from the dryer/mixer drum shall not exceed 52 lbs per hour when burning natural gas.

b. No. 2 Fuel Oil

(1) The concentration of carbon monoxide discharged from the dryer/mixer drum shall not exceed 415 ppmv, corrected to 7 percent O_2 (1-hour average) when burning No. 2 fuel oil.

(2) The emission rate of carbon monoxide discharged from the dryer/mixer drum shall not exceed 52 lbs per hour when burning No. 2 fuel oil.

c. Alternative Fuel

(1) The concentration of carbon monoxide discharged from the dryer/mixer drum shall not exceed 445 ppmv, corrected to 7 percent O_2 (1-hour average) when burning alternative fuel.

(2) The emission rate of carbon monoxide discharged from the dryer/mixer drum shall not exceed 52 lbs per hour when burning alternative fuel.

5. Sulfur Dioxide (SO_2)

a. All No. 2 fuel oil burned in the dryer/mixer drum shall contain no more than 0.5% sulfur by weight.

b. All alternative fuel burned in the dryer/mixer drum shall contain no more than 0.5% sulfur by weight.

c. The emission rate of sulfur dioxide discharged from the dryer/mixer drum shall not exceed 64.4 lbs per hour.

6. Listed Toxic Air Contaminants

The total quantity of any listed toxic air contaminant discharged to the atmosphere from the baghouse stack shall not exceed the limitations shown in Table 1. The limitations shown in pounds per year are calculated on a 12-month rolling basis. These limitations were established to ensure that emissions from this facility do not exceed any of the acceptable ambient levels (AALs) listed in Air Pollution Control Regulation No. 22.

7. Hazardous Air Pollutants (HAP)

The total quantity of HAP emissions discharged to the atmosphere from the entire facility shall not exceed 18,000 pounds of any one (1) HAP or 48,000 pounds of any combination of HAPs in any consecutive 12-month period.

B. Operating Requirements

1. The production rate of the asphalt plant shall not exceed 400 tons per hour.

2. The quantity of asphalt produced from the asphalt plant shall be limited to 490,000 tons or less for any consecutive 12-month period.

3. Natural gas, No. 2 fuel oil or alternative fuel shall be burned in the dryer/mixer drum.

4. Alternative fuel shall only be burned in the dryer/mixer drum.

5. The owner/operator shall have a full-time operator in attendance that is knowledgeable in the operation of the fuel burning equipment used for burning the alternative fuel.

5. Particulate emissions generated from the dryer/mixer drum shall be captured, contained, and routed to the baghouse for treatment prior to discharge to the atmosphere.

6. All reasonable precautions shall be taken to prevent visible, fugitive emissions from any of the equipment.

C. Continuous Monitors

1. The pressure drop across the baghouse shall be monitored continuously. Pressure drop shall be checked a minimum of once per day, and the date, time, and measurement shall be recorded.

D. Alternative Fuel Standards and Testing

1. Each delivery of alternative fuel to the facility must be accompanied by a certification from the supplier that indicates the alternative fuel meets the following standards:

a. Heating Value: 8,000 BTU/lb or greater

b. Halogens: 1000 ppm by weight or less

c. Lead: 100 ppm by weight or less

d. Sulfur: 0.5% by weight or less

e. PCB: 50 ppm by weight or less

f. Flashpoint: 100^{o}F minimum

g. Arsenic: 5 ppm by weight or less

h. Cadmium: 2 ppm by weight or less

i. Chromium: 10 ppm by weight or less

2. The alternative fuel certification shall also include analytical results for beryllium, manganese, nickel, viscosity, bottom solids and water and ash content.

3. All analyses performed for the requirements of this section shall be according to those methods specified in Appendix A of Air Pollution Control Regulation No. 20, "Burning of Alternative Fuels". Alternative methods may be used providing they have the prior approval of the Office of Air Resources.

E. Emission Testing

1. Annual Testing

a. The burner for the dryer/mixer drum shall be serviced and tested at least once per year. The testing shall include measurements of nitrogen oxides and carbon monoxide emissions. Testing shall be conducted for each fuel fired in the dryer/mixer drum.

b. The owner/operator shall provide the Office of Air Resources at least 30 days prior notice of the annual testing.

c. All testing shall be conducted under operating conditions deemed acceptable and representative for the purpose of assessing compliance with the applicable emission limitations.

d. A final report of the results of the servicing and testing shall be prepared and shall include the following information:

(1) Plant data including name, address, plant capacity (tph), normal production rate (tph) and burner model.

(2) Fuel data including fuel type, sulfur content and heating value (BTU/gal or BTU/ft^3).

(3) Test conditions including fuel flow, fuel pressure, production rate (tph), material moisture (%), mix temperature, stack temperature, stack flow (acfm) and ambient temperature.

(4) Emissions measurements including oxygen (%), carbon monoxide (ppmv) and nitrogen oxides (ppmv).

(5) Calculated data including carbon monoxide (ppmv corrected to 7% O_2), nitrogen oxides (ppmv corrected to 7% O_2) and fuel consumption (gal or ft^3 per ton of asphalt produced).

(6) Test date, tester name and make and model of instrument used to measure emissions.

e. The report of the results of the servicing and testing shall be maintained onsite for a minimum of five (5) years after the date of the test and shall be made available to representatives of the Office of Air Resources upon request.

2. Acrolein Testing

a. If the quantity of asphalt produced from the drum mix plant exceeds 6500 tons in any one day, the owner/operator shall conduct emissions testing to measure emissions of acrolein when burning alternative fuel. The testing shall be conducted within 180 days of exceeding the 6500 ton threshold.

b. A stack testing protocol shall be submitted to the Office of Air Resources for review at least 60 days prior to the performance of the test. The owner/operator shall provide the Office of Air Resources at least 60 days prior notice of the test.

c. All test procedures used for testing shall be approved by the Office of Air Resources prior to the performance of the test.

d. The owner/operator shall install any and all test ports or platforms necessary to conduct the required testing, provide safe access to any platforms and provide the necessary utilities for sampling and testing equipment.

e. The testing shall be conducted under operating conditions deemed acceptable and representative for the purpose of measuring acrolein emissions.

f. A final report of the results of testing shall be submitted to the Office of Air Resources no later than 60 days following completion of testing.

g. The testing must be observed by the Office of Resources or its authorized representatives to be considered acceptable, unless the Office of Air Resources provides authorization to the owner/operator to conduct the testing without an observer present.

F. Record Keeping and Reporting

1. The owner/operator shall, on a monthly basis, no later than 15 days after the first of the month, determine the quantity of asphalt produced from the asphalt plant for the previous 12 months. The owner/operator shall keep records of this determination and provide such records to the Office of Air Resources upon request.

2. The owner/operator shall notify the Office of Air Resources in writing, within 30 days, whenever the quantity of asphalt produced from the asphalt plant, for any 12-month period, exceeds 490,000 tons.

3. The owner/operator shall, on a monthly basis, no later than 5 days after the first of the month, determine the total quantity of hazardous air pollutants (HAPs) discharged to the atmosphere from the entire facility. The owner/operator shall keep records of this determination and provide such records to the Office of Air Resources upon request.

4. The owner/operator shall notify the Office of Air Resources in writing, within 15 days, whenever the total quantity of HAPs discharged to the atmosphere from the entire facility exceeds 18,000 pounds of any one (1) HAP or 48,000 pounds of any combination of HAPs in any consecutive 12-month period.

5. The owner/operator shall maintain records of the quantity and types of fuel used in the dryer/mixer drum.

6. The owner/operator shall, on a daily basis, no later than the next business day, determine the quantity of asphalt produced from the drum mix plant for the previous day. The owner/operator shall keep records of this determination and provide such records to the Office of Air Resources upon request.

7. The owner/operator shall notify the Office of Air Resources in writing, within 30 days, whenever the quantity of asphalt produced from the drum mix plant, for any day, exceeds 6500 tons.

8. The owner/operator shall maintain records of the daily pressure drop measurement of the baghouse.

9. The owner/operator shall maintain the following records:

    a. The feed rate of the alternative fuel in gallons per day;

    b. The total fuel oil feed rate;

    c. The date and hour deliveries or additions to the fuel storage tanks are made and the quantity;

    d. The time that burning of the alternative fuel commenced and ceased, or was interrupted, including the date and hour;

    e. The name and address of the supplier of the alternative fuel.

10. The owner/operator shall submit each alternative fuel certification to the Office of Air Resources within ten (10) days of each delivery.

11. The owner/operator shall retain copies of all alternative fuel supplier certifications for each alternative fuel delivery. These records shall be made accessible for review by the Office of Air Resources or EPA.

12. The owner/operator shall notify the Office of Air Resources of any anticipated noncompliance with the terms of this permit or any other applicable air pollution control rules and regulations.

13. The owner/operator shall notify the Office of Air Resources in writing of any planned physical or operational change to any equipment that would:

a. Change the representation of the facility in the application.

b. Alter the applicability of any state or federal air pollution rules or regulations.

c. Result in the violation of any terms or conditions of this permit.

d. Qualify as a modification under APC Regulation No. 9.

Such notification shall include:

- Information describing the nature of the change.
- Information describing the effect of the change on the emission of any air contaminant.
- The scheduled completion date of the planned change.

Any such change shall be consistent with the appropriate regulation and have the prior approval of the Director.

14. The owner/operator shall notify the Office of Air Resources, in writing, of any noncompliance with the terms of this permit within 30 calendar days of becoming aware of such occurrence and supply the Director with the following information:

a. The name and location of the facility;

b. The subject source(s) that caused the noncompliance with the permit term;

c. The time and date of first observation of the incident of noncompliance;

d. The cause and expected duration of the incident of noncompliance;

e. The estimated rate of emissions (expressed in lbs/hr or lbs/day) during the incident and the operating data and calculations used in estimating the emission rate;

f. The proposed corrective actions and schedule to correct the conditions causing the incidence of noncompliance.

15. All records in this permit shall be maintained for a minimum of five (5) years after the date of each record and shall be made available to representatives of the Office of Air Resources upon request.

G. Fugitive Dust

1. Vehicles transporting aggregate shall be covered with tarpaulin or similar dust resistant membrane.

2. Vehicle operating speeds shall be controlled to minimize generation of dust.

3. Service roads at the plant are to be paved with asphalt or RAP.

4. Service roads within the facility shall be maintained and controlled in such a manner as to minimize the potential for the generation of fugitive dust emissions.

5. Stockpiles of aggregate are to be formed upwind of operations whenever possible with fine aggregate piles protected from wind erosion by stone stock piles.

6. All open storage areas and/or piles of soil aggregate or any other material which may produce fugitive dust shall be covered or watered down as necessary to prevent generation of dust.

7. All reasonable precautions shall be taken to prevent fugitive dust emissions from the storage, handling or transporting of aggregate or any other dust producing material.

H. Other Permit Conditions

1. To the extent consistent with the requirements of this permit and applicable federal and state laws, the facility shall be designed, constructed and operated in accordance with the representation of the facility in the permit application dated 26 May 2006, prepared by Webster Associates, Incorporated and revised 31 July 2007, and the permit application received by the Office of Air Resources on 8 April 2009, prepared by Earthworks Engineering, Inc.

2. Employees of the Office of Air Resources and its authorized representatives shall be allowed to enter the facility at all times for the purpose of inspecting any air pollution source, investigating any condition it believes may be causing air pollution or examining any records required to be maintained by the Office of Air Resources.

3. There shall be no bypassing of the air pollution control equipment at any time.

4. A Visolite test of the baghouse shall be performed three times per year on or about 1 April, 1 July, and 1 October. A written report of the results of the test and any corrective action taken or to be taken shall be submitted to the Office of Air Resources within 10 days of completion of the test.

5. At all times, including periods of startup, shutdown and malfunction, the owner/operator shall, to the extent practicable, maintain and operate the facility in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Office of Air Resources which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures and inspection of the source.

I. Malfunctions

1. A malfunction of any air pollution control system that would result in the exceedance of any emission limitation applicable to this facility will necessitate the shutdown of the facility. The facility must remain shutdown until the malfunction has been identified and corrected.

2. The owner/operator may seek to establish that a malfunction of any air pollution control system that would result in noncompliance with any of the terms of this permit or any other applicable air pollution control rules and regulations was due to unavoidable increases in emissions attributable to the malfunction. To do so, the owner/operator must demonstrate to the Office of Air Resources that:

   a. The malfunction was not attributable to improperly designed air pollution control equipment, lack of preventative maintenance, careless or improper operation, or operator error;

   b. The malfunction was not part of a recurring pattern indicative of inadequate design, operation, or maintenance;

   c. Repairs were performed in an expeditious fashion. Off-shift labor and overtime should be utilized, to the extent practicable, to ensure that such repairs were completed as expeditiously as practicable.

   d. All possible steps were taken to minimize emissions during the period of time that the repairs were performed.

   e. Emissions during the period of time that the repairs were performed will not:

      (1) Cause an increase in the ground level ambient concentration at or beyond the property line in excess of that allowed by Air Pollution Control Regulation No. 22 and any Calculated Acceptable Ambient Levels; and

      (2) Cause or contribute to air pollution in violation of any applicable state or national ambient air quality standard.

   f. The reasons that it would be impossible or impractical to cease the source operation during said period.

   g. The owner/operator's action in response to the excess emissions were documented by properly signed, contemporaneous operating logs or other relevant evidence.

   This demonstration must be provided to the Office of Air Resources, in writing, within two working days of the time when the malfunction occurred and contain a description of the malfunction, any steps taken to minimize emissions and corrective actions taken.

   The owner/operator shall have the burden of proof in seeking to establish that noncompliance was due to unavoidable increases in emissions attributable to the malfunction.

Table 1. Emissions Limitations for Listed Toxic Air Contaminants

Pollutant	Limitation		
	pounds/hour	pounds/day	pounds/year
Acetaldehyde			13,313
Acrolein	0.016	0.17	
Arsenic	0.031		5.33
Benzene	31.18	259	2662
Beryllium		0.17	10.65
Cadmium		0.86	15.97
Formaldehyde	7.79	186[2]	2130
Hexavalent Chromium		2.13[3]	2.13
Hydrogen Chloride	311.86		18,000[5]
Lead			213
Manganese		0.43	156[6]
Mercury	0.31	2.59	239
Naphthalene			7987
Nickel	0.935		106
PCDDs & PCDFs			7.98 E-05
Phosphorus	0.60[1]	0.60	
Polycyclic Organic Matter			2.39
Quinone			18,000[7]
Toluene	623	3458	18,000[8]
Xylene	623	14,969[4]	18,000[9]

[1]Daily limit (0.60) is more stringent than that back calculated from the AAL (3.11)
[2]Allowable lbs/hr x 24 (186) is more stringent than the daily limit back calculated from the AAL (345)
[3]Annual limit (2.13) is more stringent than the daily limit back calculated from the AAL (8.64)
[4]Allowable lbs/hr x 24 (14,969) is more stringent than the daily limit back calculated from the AAL (25,937)
[5]HAP limitation (18,000) is more stringent than that back calculated from the AAL (239,635)
[6]Daily limit x 365 days/yr (156) is more stringent than that back calculated from the AAL (1065)
[7]HAP limitation (18,000) is more stringent than that back calculated from the AAL (26,626)
[8]HAP limitation (18,000) is more stringent than that back calculated from the AAL (7,987,841)
[9]HAP limitation (18,000) is more stringent than that back calculated from the AAL (2,662,614)