

4 December 2007

Mr. Jeffery S. Joaquin
Pawtucket Asphalt Corporation
25 Concord Street
Pawtucket, RI 02860

Dear Mr. Joaquin:

The Department of Environmental Management, Office of Air Resources has reviewed and approved your application for the installation of a drum mix asphalt plant to be located at 25 Concord Street, Pawtucket.

Enclosed is a minor source permit issued pursuant to our review of your application (Approval Nos. 2016 & 2017).

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

Sincerely,

Douglas L. McVay
Associate Supervising Engineer
Office of Air Resources

cc: Pawtucket Building Official
Mark Speer – EA Engineering, Science and Technology

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

MINOR SOURCE PERMIT

PAWTUCKET ASPHALT CORPORATION.

APPROVAL NOS. 2016 & 2017

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

Pawtucket Asphalt Corporation

For the following:

Installation of a new 300 tph Gencor Industries Ultraplant Model 300 asphalt drum mix plant (Approval No. 2016). Particulate emissions generated from the drum dryer will be controlled by a new Gencor, Model CFS-166 dust collection system, consisting of a primary control device (inertial separator) and a fabric filter (Approval No. 2017). The drum dryer shall be fired with natural gas or No. 2 fuel oil containing 0.05 percent sulfur, by weight, or less.

Located at: *25 Concord Street, Pawtucket*

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 Pawtucket Asphalt Corporation 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.

**Stephen Majkut, 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

PAWTUCKET ASPHALT CORPORATION

APPROVAL NOs. 2016 & 2017

A. Emission Limitations

1. Particulate Matter

- a. The concentration of particulate matter discharged to the atmosphere from the baghouse stack shall not exceed 0.02 grains per dry standard cubic foot.
- b. The emission rate of particulate matter discharged to the atmosphere from the baghouse stack shall not exceed 5.16 lbs 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 rotary drum dryer shall not exceed 31 ppmv, corrected to 7 percent O₂ (1-hour average) when burning natural gas.
- (2) The emission rate of nitrogen oxides discharged from the rotary drum dryer shall not exceed 3.88 lbs per hour when burning natural gas.

b. No. 2 Fuel Oil

- (1) The concentration of nitrogen oxides discharged from the rotary drum dryer shall not exceed 86 ppmv, corrected to 7 percent O₂ (1-hour average) when burning No. 2 fuel oil.

- (2) The emission rate of nitrogen oxides discharged from the rotary drum dryer shall not exceed 11.42 lbs per hour when burning No. 2 fuel oil.

4. Carbon Monoxide (CO)

a. Natural Gas

- (1) The concentration of carbon monoxide discharged from the rotary drum dryer shall not exceed 300 ppmv, corrected to 7 percent O₂ (1-hour average) when burning natural gas.
- (2) The emission rate of nitrogen oxides discharged from the rotary drum dryer shall not exceed 23.10 lbs per hour when burning natural gas.

b. No. 2 Fuel Oil

- (1) The concentration of nitrogen oxides discharged from the rotary drum dryer shall not exceed 458 ppmv, corrected to 7 percent O₂ (1-hour average) when burning No. 2 fuel oil.
- (2) The emission rate of nitrogen oxides discharged from the rotary drum dryer shall not exceed 37.10 lbs per hour when burning No. 2 fuel oil.

5. Sulfur Dioxide (SO₂)

- a. All No. 2 fuel oil burned in the rotary drum burner shall contain no more than 0.05% sulfur by weight.
- b. The emission rate of sulfur dioxide discharged from the rotary drum dryer shall not exceed 4.13 lbs per hour.

B. Operating Requirements

1. The production rate of the drum mix plant shall not exceed 300 tons per hour.
2. The quantity of asphalt produced from the drum mix plant shall be limited to 320,000 tons or less for any consecutive 12-month period
3. Particulate emissions generated from the dryer shall be captured, contained, and routed to the baghouse for treatment prior to discharge to the atmosphere.
4. 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. Emission Testing

1. Initial Performance Test

- a. The owner/operator shall conduct emission testing of the equipment to demonstrate compliance with the emission limitations for particulate matter, nitrogen oxides and carbon monoxide. Testing shall be conducted within 60 days after achieving the maximum operating rate, but no later than 180 days after initial startup.
- b. An emission testing protocol shall be submitted to the Office of Air Resources for review and approval prior to the performance of any compliance tests. The owner/operator shall provide the Office of Air Resources at least 60 days prior notice of any compliance test.
- c. Emission testing shall be performed in accordance with procedures specified in 40 CFR 60, Appendix A, unless other test methods are prescribed by RIDEM.
- 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. All testing shall be conducted under operating conditions deemed acceptable and representative for the purpose of assessing compliance with the applicable emission limitations.
- f. A final report of the results of any compliance testing shall be submitted to the Office of Air Resources no later than 60 days following completion of testing.
- g. All stack 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 stack testing without an observer present.

2. Annual Testing

- a. The burner for the rotary dryer 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 rotary dryer burner.
- 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/ft³).
 - (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% O₂), nitrogen oxides (ppmv corrected to 7% O₂) and fuel consumption (gal or ft³ 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.

E. 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 drum mix 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 drum mix plant exceeds 320,000 tons in any consecutive 12-month period.
3. The owner/operator shall notify the Office of Air Resources in writing of the date the drum mix plant began operation, no later than fifteen (15) days after such date.
4. The owner/operator shall maintain records of the daily pressure drop measurement of the baghouse.
5. 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.
6. 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.

7. 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.
8. 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.

F. 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 wherever possible with fine aggregate piles protected from wind erosion by stone stock piles.
6. All open storage areas and/or piles of soil, aggregates 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.

G. 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.
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 or similar leak detection test shall be conducted prior to the initial startup and operation, when plant operations are resumed after winter shutdown and every 90 days during the operating season.
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.

H. 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.