



DEPARTMENT ORDER

**Dayton Sand & Gravel Company, Inc.**  
**York County**  
**Dayton, Maine**  
**A-190-71-N-M (SM)**

**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

Dayton Sand and Gravel Company, Inc. (Dayton S&G) was issued Air Emission License A-190-71-L-R on June 4, 2014, for the operation of emission sources associated with their hot mix asphalt plant, concrete batch plant, and crushed stone and gravel facility. The license was subsequently amended on September 3, 2014 (A-190-71-M-A).

Dayton S&G has requested a minor revision to their license in order to replace the existing burner on their hot mix asphalt plant with a new more efficient model.

The equipment addressed in this license amendment is located at 928 Goodwins Mills Road, Dayton, Maine.

B. Emission Equipment

The following equipment is addressed in this air emission license amendment:

**Asphalt Plant**

<b><u>Equipment</u></b>	<b><u>Process Rate</u></b> <b><u>(tons/hr)</u></b>	<b><u>Design Capacity</u></b> <b><u>Firing Rate</u></b>	<b><u>Control</u></b> <b><u>Devices</u></b>	<b><u>Date of</u></b> <b><u>Manuf.</u></b>
Batch Mix Asphalt Plant	150	82 MMBtu/hr, distillate fuel or specification waste oil	Baghouse	Pre-1973

C. Application Classification

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

This amendment will not increase emissions of any pollutant. Therefore, this amendment is determined to be a minor revision and has been processed as such.

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.

B. Batch Mix Asphalt Plant

The Batch Mix Asphalt Plant at Dayton S&G is licensed at a maximum production rate of 150 tons per hour, with a burner rated at 109.9 MMBtu per hour. Dayton S&G has requested a minor revision to their air license to replace the existing burner on their Batch Mix Asphalt Plant with a new, more efficient burner that will fire the same fuels that they presently utilize. The new, higher efficiency burner will have a lower heat input rating (82 MMBtu/hr), but will be able to sustain the Batch Mix Asphalt Plant's current production capabilities. Because SO<sub>2</sub> emissions from the operation at Dayton S&G are directly proportional to the quantity of fuel fired through their burner, the lower fuel consumption at the facility resulting from the burner replacement will reduce the SO<sub>2</sub> emissions generated by the operation. None of the emissions rates for the other pollutants at Dayton S&G will be affected by this project, either positively or negatively, since their rates are all calculated based on the plant's production capacity and not its heat input.

The Department has determined that no additional controls or restrictions are appropriate as a result of replacing the existing burner with a more efficient one, and that the following emission limits constitute BACT when the new burner is installed and operating in the Batch Mix Asphalt Plant.

1. BACT Findings

The BACT emission limits for the Batch Mix Asphalt Plant with the new burner were based on the following:

- PM, PM<sub>10</sub> - 0.03 gr/dscf and 8.85 lb/hr and the use of a baghouse
- SO<sub>2</sub> - based on firing specification waste oil with a maximum sulfur content of 0.7% by weight
- NO<sub>x</sub> - 0.12 lb/ton, based on AP-42 Table 11.1-5 dated 3/04
- CO - 0.40 lb/ton, based on AP-42 Table 11.1-5 dated 3/04
- VOC - 0.0082 lb/ton, based on AP-42 Table 11.1-6 dated 3/04
- Visible Emissions - 06-096 C.M.R. ch. 115, BACT

The BACT emission limits for the Batch Mix Asphalt Plant with the new burner are the following:

<u>Unit</u>	<u>PM</u> <u>(lb/hr)</u>	<u>PM<sub>10</sub></u> <u>(lb/hr)</u>	<u>SO<sub>2</sub></u> <u>(lb/hr)</u>	<u>NO<sub>x</sub></u> <u>(lb/hr)</u>	<u>CO</u> <u>(lb/hr)</u>	<u>VOC</u> <u>(lb/hr)</u>
Batch Mix Asphalt Plant	8.85	8.85	59.49	18.00	60.00	1.23

Visible emissions from the Asphalt Batch Plant baghouse shall not exceed 20% opacity on a six-minute block average basis, except for no more than two six-minute block averages in a continuous three-hour period, during which time visible emissions shall not exceed 60% opacity. This is consistent with the visible emission limit listed in the *Standard for Particulate Matter* contained in the *Standards of Performance for Hot Mix Asphalt Facilities*, 40 C.F.R. Part 60, Subpart I of 20% opacity.

General process emissions from the Asphalt Batch Plant shall be controlled as to prevent visible emissions in excess of 20% opacity on a six-minute block average basis.

C. Annual Emissions

This amendment does not affect the facility's licensed annual emissions because there will be no increase in emission limits or asphalt throughput.

## ORDER

Based on the above Findings and subject to conditions listed below, the Department concludes that the emissions from this source:

- will receive Best Practical Treatment,
- will not violate applicable emission standards, 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-190-71-N-M subject to the conditions found in Air Emission License A-190-71-L-R and in amendment A-190-71-M-A.

Severability - 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 Condition shall replace Condition (16)(E) of Air Emission License A-190-71-L-R dated June 4, 2014:

### (16) Asphalt Batch Plant

E. Emissions from the asphalt plant baghouse shall not exceed the following:  
[06-096 C.M.R. ch. 115, BPT and BACT]

<b>Pollutant</b>	<b>gr/dscf</b>	<b>lb/hr</b>
PM	0.03	8.85
PM <sub>10</sub>	-	8.85
SO <sub>2</sub>	-	59.49
NO <sub>x</sub>	-	18.00
CO	-	60.00
VOC	-	1.23

The following Condition shall replace Condition (16)(F) of Air Emission License A-190-71-L-R dated June 4, 2014:

F. Visible emissions from the baghouse are limited to no greater than 20% opacity on a six-minute block average basis, except for no more than two six-minute block averages in a continuous three-hour period, during which time visible emissions shall not exceed 60% opacity. [06-096 C.M.R. ch. 115, BACT]

The following Condition shall replace Condition (16)(G) of Air Emission License A-190-71-L-R dated June 4, 2014:

G. General process emissions from the asphalt plant 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. 115, BACT]

DONE AND DATED IN AUGUSTA, MAINE THIS 12 DAY OF December, 2017.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: Paul Mercer  
PAUL MERCER, COMMISSIONER

The term of this amendment shall be concurrent with the term of Air Emission License A-190-71-L-R.

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: May 8, 2017

Date of application acceptance: May 19, 2017

Date filed with the Board of Environmental Protection:

This Order prepared by Patric J. Sherman, Bureau of Air Quality.

